



**PLANNING AND COMPULSORY PURCHASE  
ACT 2004**

**TOWN AND COUNTRY PLANNING  
(LOCAL PLANNING) (ENGLAND)  
REGULATIONS 2012**

**CUMBRIA MINERALS AND WASTE  
LOCAL PLAN**

**2015 to 2030**

**SEPTEMBER 2017**

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Cumbria County Council on 6 September 2017*

## **Foreword**

To meet the needs of Cumbria's communities, we need a Plan that provides for new jobs to diversify and grow our economy and for the new or improved infrastructure that is essential for the county's development and regeneration initiatives, whilst balancing the need to protect the county's outstanding natural and built environment.

Minerals are the essential raw materials for manufacturing industries, and for building or improving our roads, homes, hospitals, schools, shops and offices. Our quality of life relies on the safe, clean and effective treatment and disposal of waste. By reducing, reusing, recycling and finding other uses for more of our waste, we can help to reduce our impact on the environment and benefit future generations.

Good planning for our minerals and waste is fundamental to the way we live our lives and the way our city, towns and villages appear and function. Equally, we need to appreciate the potential for minerals exploitation and the management of waste to cause disruption to our environment and to our communities. Hence the reason why we have produced this Local Plan, to try to minimise any conflicts as best we can, and ensure that the wider community can enjoy the benefits of good minerals and waste planning, now and in many years to come.

This document, which covers the area outside the two National Parks, sets a clear vision for the next 15 years, for how new development can address the challenges we face. This document is the culmination of a great deal of public consultation over recent years, and extensive evidence gathering by the Council. The policies in the Plan will shape Cumbria in the future, helping to achieve sustainable consumption and production, living within environmental limits, protecting the quality of life of present and future generations, protecting Cumbria's environmental assets and ensuring the prudent use of natural resources.

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## 1. INTRODUCTION

- 1.1 The County Council is the local planning authority for mineral working and waste management developments in Cumbria. In this role, it is responsible for determining planning applications and also for preparing planning policy for those types of development.
- 1.2 Without the right waste management facilities and adequate supplies of minerals, other sectors of the economy could not function properly. They are essential for the county's development and regeneration initiatives, its low carbon agenda and for maintaining and improving the basic infrastructure of roads, buildings and other facilities. The minerals and waste industries also provide important direct local economic benefits, including jobs.
- 1.3 Preparing the Plan has involved engagement and collaboration with communities, local organisations and businesses. Public consultation was held for each stage of the plan-making process. It has also been prepared in co-operation with Cumbria's districts, neighbouring authorities and other minerals and waste planning authorities that may be affected by the strategies and policies in the Plan. This has ensured that effective co-operation has been undertaken where there are cross-boundary impacts.
- 1.4 The Minerals and Waste Local Plan (MWLP) replaces the Cumbria Minerals and Waste Development Framework (MWDF), which was comprised of the Core Strategy and Generic Development Control Policies that were adopted in April 2009, and the draft Site Allocations Policies and Proposals Map, upon which there were consultations in 2009 to 2011. For a list of all the superseded MWDF policies, and the MWLP policy replacements, see Appendix 1.
- 1.5 It is considered that this Minerals and Waste Local Plan will provide for the sustainable minerals and waste management developments that will be needed in Cumbria by 2030 and beyond, whilst helping to achieve sustainable consumption and production, living within environmental limits, protecting the quality of life of present and future generations, protecting Cumbria's environmental assets and ensuring the prudent use of natural resources.

### *New National Park designations*

- 1.6 Extensions to the Yorkshire Dales and Lake District National Parks, by Variation Order, were confirmed in writing by the Secretary of State on 23 October 2015. The extension areas are shown on the map in Appendix 2; apart from a small area of land between Kirkby Lonsdale and Ingleton on Leck Fell, which lies in Lancashire, all of the extension areas fall within the county of Cumbria.
- 1.7 Following the transfer of functions on 1 August 2016, the respective National Park Authorities became the Local Planning Authority for the newly designated areas, with responsibility for determining all applications for planning permission and Listed Buildings consent, as well as the responsibility for preparing a Local Plan, which would include minerals and waste planning policy. Both the Lake District National Park Authority (LDNPA) and Yorkshire

Dales National Park Authority (YDNPA) will use existing, adopted development plan policies in the extension areas, i.e. the adopted policies of South Lakeland District Council, Cumbria County Council, Lancaster City Council and Lancashire County Council, as appropriate. However, the National Parks have indicated that the statutory implications of National Park designation, as outlined in the National Planning Policy Framework (NPPF), will be a material consideration in their determination of applications in these areas.

- 1.8 Whilst the National Park Authorities are now the minerals and waste planning authorities in the extension areas, the adopted development plan document for Cumbria County Council will remain the extant minerals and waste policy for those new areas that fall in Cumbria. This will continue until either: a) the YDNPA and LDNPA choose to adopt the Cumbria Minerals and Waste Local Plan for the relevant extensions or b) the YDNPA and LDNPA review their own Local Plans, to include the extension areas.

# **PART 1**

## **STRATEGIC POLICIES**

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## 2. OVERALL STRATEGY

### Where we are now

- 2.1 As stated in the Introduction, the minerals and waste management industries are essential and indispensable to the county. Without them, other sectors of the economy could not function properly and the basic infrastructure of roads, buildings and other facilities could not be maintained or improved. Both industries also provide important direct local economic benefits, including jobs.
- 2.2 The industries fit within a county of contrasts and very serious challenges. We have some of the country's best environments, which attract 40 million visitors per year. These environments contrast with major industrial landscapes and there are also pockets of the most deprived wards in Europe. Some areas have experienced soaring house prices, others housing market collapse. Whilst the population has increased, it is ageing and many young people are leaving.
- 2.3 Given the scale and depth of economic problems facing economies worldwide, it is inevitable that Cumbria has also experienced economic difficulties over the last few years. To some degree, the structure of Cumbria's economy, with major employers in the defence and nuclear sectors, has provided some insulation from economic shock. However, Cumbria still faces major challenges to achieve its economic potential and to build on its strengths and natural assets. That potential includes the competitive advantage offered by the M6 corridor and the West Coast Mainline transport routes, its global reputation and expertise in nuclear and clean technologies, its strengths in the growing advanced manufacturing sector and the county's stunning environment, with its consequent tourism industry.
- 2.4 Cumbria is the second largest county in England with a relatively small number of people. Its main towns are dispersed around the edges of the county, whilst in the centre are the mountains and lakes of the Lake District National Park. Cumbria's environment is both naturally and historically rich and diverse, and people are attracted to the county because of that environment.
- 2.5 Cumbria is mostly self-sufficient for those minerals that can be worked from its own resources and also supplies regional and national markets for high skid resistance roadstones, industrial lime, specialist bricks, and plaster and plasterboard, made using gypsum. In general, waste management facilities in the county serve their local areas and most parts of the county have had access to the facilities that were seen to be necessary at the time. There has historically, however, been a shortfall in landfill capacity in the south of the county, resulting in residual waste being sent to landfill in Lancashire.
- 2.6 Within the last few years, there has been significant success in reducing the amount of household waste per head and in increasing the rates of recycling and composting. Recyclables are collected, separated and bulked up, but are then sent to major facilities elsewhere; for example, tins are sent to Liverpool, glass to Alloa and paper to Stirling. Very little processing of recyclates takes place within the county.

- 2.7 Levels of traffic through the three remaining operational ports of Barrow, Workington and Silloth, have steadily declined. Carlisle airport does not currently operate as a commercial airport, although there are plans for its development.
- 2.8 The Sellafield complex in West Cumbria, which incorporates the formerly separate nuclear licensed site of Windscale, has one of the world's largest single concentrations of nuclear facilities and plays an important role in Cumbria's economy. The Low Level Waste Repository near Drigg village provides a national radioactive waste facility.

### **Where we need to be**

- 2.9 The long term spatial vision of the Local Plan must take account of the challenges that have been outlined in the dialogue above and of the opportunities that have been identified, in order to achieve sustainable development in the county. The opportunities identified in Cumbria are the quality of the urban and rural environments, the unique environmental assets, transport routes and the strengths of some sectors of the economy.
- 2.10 With regard to minerals and waste in Cumbria, the long term spatial vision must set a clear path for how new development can address the challenges that the county faces. The overall strategy then provides the focus to achieve this vision, by setting out a clear direction for delivery, and provides the context for the objectives and policies of the Local Plan.
- 2.11 The strategy set out in Box 2.2 will facilitate the provision of new jobs to diversify and grow the county's economy, as well as support jobs in the developing and growing sectors, such as the radioactive waste industry. The strategy will also aid provision of the new or improved infrastructure that is essential for the county's development and economic well-being, whilst balancing the need to preserve and enhance Cumbria's outstanding natural and built environment.
- 2.12 Minerals are the essential raw materials for manufacturing industries, and for building or improving the county's roads, homes, hospitals, schools, shops and offices. A steady and adequate supply of all necessary minerals will be provided in a prudent and sustainable manner, achieving economic, social and environmental gains where practicable.
- 2.13 The quality of life for Cumbria's communities relies on the safe, clean and effective treatment and disposal of all waste streams, including radioactive waste. By reducing, reusing, recycling and finding other uses for more of the county's waste streams, the impact on the environment will be reduced and will provide benefits for future generations. The management of waste produced by the nuclear sector in Cumbria, including radioactive waste, is of particular significance for the county, as it hosts both Sellafield and the Low Level Waste Repository, employing more than 12,000 people and with a combined turnover of more than £2 billion each year. However, in many respects, the management of radioactive waste should be approached in the same way as conventional waste streams, i.e. in a sustainable manner, via the

waste hierarchy. Thus in Box 2.2, references to ‘waste’ encompass all waste streams, as appropriate.

- 2.14 The three dimensions of sustainable development are economic, social and environmental; they should not be considered in isolation, as they are mutually dependent. Economic growth can secure higher social and environmental standards, and well-designed buildings and places can improve the lives of people and communities. To achieve sustainable development, economic, social and environmental gains should be sought jointly and simultaneously<sup>1</sup>.
- 2.15 Over the past ten years, much work has been undertaken in Cumbria by central Government, the County Council and partners, to set the county on the road to economic growth; this included the West Cumbria Spatial Masterplan, Britain’s Energy Coast and rural-proofing. In March 2014, Cumbria’s Local Enterprise Partnership (LEP) published a strategic economic plan<sup>2</sup>, looking at the state of the county’s economy, and setting out a plan to unleash the economic potential of Cumbria over the next 10 years. A summary of the SWOT assessment (Strengths, Weaknesses, Opportunities, Threats) of Cumbria’s economy undertaken by the LEP, is set out in Appendix 4.

#### *Cumbria Strategic Economic Plan*

- 2.16 The LEP recognises the potential for significant private investment in the county, within the nuclear, energy and advanced manufacturing sectors; through the delivery of major infrastructure projects, this investment could generate growth in the economy that is estimated to generate £1.3 billion per annum of additional economic output. This forecast growth needs to be supported by appropriate investment in infrastructure, skills and housing to maximise the benefits to the local economy.
- 2.17 The vision of the Cumbria Strategic Economic Plan (SEP) is for Cumbria to have one of the fastest growing economies in the UK, in an energised and healthy environment. By delivering the priorities that are set out in the SEP between 2014 and 2024, the Enterprise Partnership will:-
- create 15,000 additional full-time equivalent jobs;
  - boost Cumbria’s economy by £600 million more than current predictions, through targeted investment in key projects;
  - increase the county’s GVA growth by 0.6 percentage points above current forecasts, yielding a GVA growth rate of 2.2% by 2024;
  - support the local planning authorities to deliver 30,000 new homes through their Local Plans;
  - raise skill levels through working with local education and training providers, reducing the proportion of Cumbria’s firms facing a skills gap by 3%;
  - increase visitor expenditure by over £500 million;
  - increase the number of businesses reporting growth by 5% through the Cumbria Growth Hub support;

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<sup>1</sup> National Planning Policy Framework, Achieving Sustainable Development, paragraphs 7 and 8; DCLG, March 2012

<sup>2</sup> Evidence Base document reference LD230: Cumbria Local Enterprise Partnership, Strategic Economic Plan, March 2014

- achieve 100% coverage of superfast broadband.
- 2.18 The SEP identifies four priority growth areas for the county over the next 10 years: advanced manufacturing; nuclear energy and excellence; vibrant rural and visitor economy; and strategic connectivity of the M6 motorway corridor. Intervention will be focused on four economic drivers, which will prioritise investment in the right infrastructure to provide sustainable and resilient connections for businesses, their markets and workforces. These drivers are:-
- business support;
  - skills development;
  - infrastructure improvement;
  - environmental sustainability.
- 2.19 The developments that will be needed in connection with the LEP Strategy, to diversify and expand the economy, to improve transport links and to increase and improve the housing stock, cannot take place without minerals for construction. An adequate and secure supply of crushed rock and sand and gravel from reasonably local sources will be needed to make concrete and tarmac and for other construction operations. Similarly, wastes from Cumbria's municipal and business sectors will not be able to be managed sustainably unless the right types of waste management facilities are provided in the right places and at the right time. Development and economic growth may be restrained if these facilities are not available.

*The European Commission*

- 2.20 The European Commission and individual EU countries have set up partnerships to use funding from the European Structural and Investment Funds, which can be used for each country's strategic goals and investment priorities, linking them to the overall aims of the Europe 2020 strategy for smart, sustainable and inclusive growth. The Cumbria LEP is taking advantage of these funds, in order to deliver the sustainable economic growth to be unleashed by their Strategic Economic Plan. It is not yet clear how or when the UK's exit from the EU will affect the European funding streams.
- 2.21 The European Commission have issued a range of strategies and policies, which are then enacted in the UK and become national policies. One of the most important topic areas for this Local Plan is waste. The Commission and central Government require that the amounts of waste going to landfill are progressively reduced and are driven up the waste hierarchy, by limiting disposals to those residual wastes that are left after treatment. The first step in the waste hierarchy is to minimise the amount of waste that is produced in the first place, followed by increasing the rates of re-use, recycling, composting and recovery of value from waste.
- 2.22 Other national policies require that an increasing proportion of mineral use is met from recycled or re-used materials. The climate change agenda requires that substantial increases in renewable and low carbon energy generation are achieved. Renewable fuels, such as those produced by the county's municipal waste management processes, and recovery of energy from other

wastes, including sewage, agricultural and food wastes, can make a significant contribution to this.

### **Vision and overall strategy**

- 2.23 The spatial vision and the overall strategy of the Local Plan, which take account of all the above matters, are set out in Box 2.1 and Box 2.2 respectively.

#### **BOX 2.1**

The long term **spatial vision** is:-

That by the end of the Plan period the right types of **waste management facilities** needed to reduce the amount of Cumbria's waste going to landfill will have been built on time and in the right places.

That everyone in Cumbria will give top priority to **minimising waste** and take responsibility for regarding it as **a resource**, not something to be thrown away.

That facilities will have been provided to manage those **radioactive wastes** that arise in Cumbria, and to make a national contribution to managing ones from elsewhere in the UK that require the county's specialist facilities, but do not have adverse social, economic or environmental impacts.

That, with an increasing proportion of re-used and recycled materials, **minerals from the County's own resources** will continue to be provided prudently to meet Cumbria's regeneration, renewal and development needs, together with those minerals proven to be required to meet regional and national needs.

That the **carbon footprint** of Cumbria's minerals and waste developments will demonstrate that the practicable savings in greenhouse gas emissions and fossil energy demand have been secured. In addition to design matters, this will include keeping road transport miles to a minimum by maintaining a pattern of local facilities that suits the geographic characteristics of the county. It will also take account of the contribution that **fuels** derived from Cumbria's waste make to the energy needs of other industries.

That Cumbria's **environmental assets** will have been protected, maintained and enhanced by siting developments in appropriate locations, by high standards of design and by working practices that are recognised to be best practice.

That optimal **economic benefit** will have been gained from minerals and waste developments, including new recycling industries based in Cumbria.

That Cumbria's **communities and stakeholders** will have been fully engaged in planning for minerals and waste developments.

## **BOX 2.2**

### **Local Plan overall strategy**

#### **By 2030:-**

- The Local Plan's provisions for waste management facilities and for supplies of minerals will have made a significant contribution to the county's economy and will have aided development and regeneration initiatives.
- Initiatives will have been successful in changing behaviours in order to meet, or exceed, targets for driving wastes up the waste hierarchy and minimising wastes sent to landfill, in accordance with the national zero waste agenda.
- The appropriate waste management facilities will have been provided in the right locations and at the right time, as far as practicable near to where it is produced and with options for sustainable transport.
- There will have been a steady and adequate supply of aggregates in accordance with the Local Aggregates Assessments and of other minerals, in accordance with national policy.
- Maximum advantage will have been taken of the scope for using alternatives to primary land-won aggregate minerals.
- Waste management and minerals developments will have secured significant enhancement of Cumbria's environmental assets and local amenity.
- Prudent and environmentally sensitive use of Cumbria's minerals and waste management resources will have achieved economic, social and environmental gains for Cumbria, in accordance with the principles of sustainable development.
- As for conventional wastes, radioactive waste arisings in the county will be minimised, as will its unnecessary import, ensuring that the right facilities are built in the right place at the right time; the full range of the radioactive waste industry's management, movements and facilities will be supported, as long as they do not have any significant adverse environmental, social or economic impacts in the county.
- The appropriate long term, safe storage facilities for higher activity radioactive wastes are provided, until a suitable disposal route is available.

### **Strategic objectives**

- 2.24 The overarching context of the Local Plan is that it must be consistent with the national planning policies, which are set out in the National Planning Policy Framework (NPPF, March 2012) and its presumption in favour of sustainable development. It must, therefore, also reflect an integrated spatial approach that accords with the UK's Sustainable Development Strategy "Securing the Future"<sup>3</sup>. That strategy sets out the five guiding principles of sustainable development:-

<sup>3</sup> Securing the Future: delivering UK sustainable development strategy, DEFRA, March 2005

- living within environmental limits
- ensuring a strong, healthy and just society
- achieving a sustainable economy
- promoting good governance
- using sound science responsibly.

2.25 The policies in the NPPF constitute the Government’s view of what sustainable development means for the planning system. The three dimensions to sustainable development, discussed in paragraph 2.14, are stated to give rise to a number of roles for the planning system to perform:-

- **an economic role** – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and co-ordinating development requirements, including the provision of infrastructure;
- **a social role** – supporting strong, vibrant and healthy communities by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community’s needs and support its health, social and cultural well-being; and
- **an environmental role** – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

2.26 This Local Plan can help to ensure that these roles can be successfully carried out. This is by making adequate positive provision for the construction materials and the waste management facilities that are needed for the development of identified housing and other land, the provision of necessary infrastructure and through its environmental policies.

2.27 Having taken account of the above principles and roles, the strategic objectives that are considered to be appropriate and relevant for the Local Plan are set out in Box 2.3.

<p><b>BOX 2.3 Strategic objectives</b></p> <p><b>Objective 1:</b> That minerals and waste management developments will take due account of the issues of climate change, in particular through energy use and transport.</p> <p><b>Objective 2:</b> That opportunities will be taken to secure improvements to Cumbria’s environment, communities and local economy, maximising potential benefits and avoiding adverse impacts.</p> <p><b>Objective 3:</b> 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</p>
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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.

**Objective 4:** That whilst aiming for net self-sufficiency in waste imports and exports, waste will be managed as near as practicable to where it is produced without endangering people's health and without harming the environment.

**Objective 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.

**Objective 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.

**Objective 7:** That mineral resources will be identified and safeguarded.

**Objective 8:** That the economic benefits of minerals and waste management developments will be optimised without harming the environment.

**Objective 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.

**Objective 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.

**Objective 11:** That there will be integral community and stakeholder involvement and ownership of initiatives and planning for sustainable minerals and waste developments.

## Policy

- 2.28 Policies in Local Plans should follow the approach of the presumption in favour of sustainable development, so that it is clear that development that is sustainable can be approved without delay. All Local Plans should be based upon and reflect the presumption in favour of sustainable development, with clear policies that will guide how the presumption should be applied locally.



### **POLICY SP1 Presumption in favour of sustainable development**

When considering development proposals, the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. It will always work proactively with applicants to find solutions that mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in Neighbourhood Plans) will be approved without delay, unless material considerations indicate otherwise.

Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision, then the Council will grant permission unless material considerations indicate otherwise – taking into account whether:

- any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or
- specific policies in that Framework indicate that development should be restricted.

2.29 The suite of strategic, development control and site allocation policies are to be regarded as a whole, they should not be used in isolation. For example, if a proposal was put forward to develop a renewable energy installation on an existing waste facility, in order to offset high operational energy consumption, policy DC8 (Renewable energy use and carbon reduction on existing minerals and waste sites) would be used to help determine the planning application. However, the proposal must also conform to all other relevant policies in the Plan, such as DC6 (Cumulative environmental impacts), DC16 (Biodiversity and geodiversity), DC17 (Historic environment), DC18 (Landscape and visual impact) and DC19 (Flood risk).

### 3. WASTE MANAGEMENT

#### Introduction and policy context

- 3.1 This chapter addresses strategic issues relating to all waste streams except radioactive waste, which is addressed in chapter 4 of this Local Plan.
- 3.2 Strategic Objectives 1 to 4 of the Local Plan reflect the County Council's commitment to reduce, reuse and recycle all we can, and throw things away only as a last resort<sup>4</sup>. This is consistent with Government policy, as expressed in the National Planning Policy for Waste<sup>5</sup>, published in October 2014. Much of the content of the Waste Management Plan for England<sup>6</sup> and the Waste Prevention Plan for England<sup>7</sup> is incorporated into Planning Practice Guidance (PPG), which makes it clear that Waste Planning Authorities should plan for the sustainable management of waste<sup>8</sup>, provide sufficient opportunities to meet the area's needs, and identify suitable sites and areas for waste management facilities in appropriate locations<sup>9</sup>.
- 3.3 PPG also clearly sets out the role of the Waste Planning Authority in meeting European Waste Framework Directive 2008/98/EC<sup>10</sup>, and reiterates the importance of driving waste up the waste hierarchy (see Figure 3.1) and implementing the principles of self-sufficiency and proximity, which are commonly referred to as the "proximity principle".
- 3.4 Significant progress in changing our attitudes towards waste and how we manage it has already been made in recent years. The Government Review of Waste Policy in England<sup>11</sup> and its associated Action Plan, included funding for waste management infrastructure for municipal waste, as well as voluntary codes with specific business sectors and statutory action in relation to producer responsibility for waste.
- 3.5 These actions sought to assist Local Authorities in reducing the waste generated by households, whilst encouraging re-use and recycling of useful resources and diverting waste from landfill. Minimising the amount of waste produced, and designing goods so that the re-use and recycling of components and resources can be maximised and waste production and disposal is minimised, also makes sense for the business sector. This concept is currently described as the "circular economy".
- 3.6 The EU has been moving towards the idea of a circular economy for some time, and published the first Circular Economy Strategy<sup>12</sup> in December 2015. This document aims to be the driver for a key step change in the way in which society views materials, to a place where the value of products, materials and resources is maintained in the economy for as long as possible and the

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<sup>4</sup> <https://www.gov.uk/government/policies/reducing-and-managing-waste>

<sup>5</sup> Evidence Base document reference ND130: DCLG, October 2014

<sup>6</sup> Evidence Base document reference ND84: Defra, December 2013

<sup>7</sup> Evidence Base document reference ND117: Defra, December 2013

<sup>8</sup> PPG paragraph 013, chapter 28 Waste (ID: 28-013-20141016)

<sup>9</sup> PPG paragraph 011, chapter 28 Waste (ID: 28-011-20141016)

<sup>10</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:312:0003:0030:en:PDF>

<sup>11</sup> Evidence Base document reference ND49: Defra, 2011

<sup>12</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1453384154337&uri=CELEX:52015DC0614>

generation of waste is minimised. The key output from this strategy is to reduce the levels of waste disposed to landfill to no more than 10% by 2030 and to increase current levels of recycling to 65%. UK Government action since 2011 has focused on specific sectors, progressively limiting the disposal of different materials in landfill, but increasingly relying on voluntary measures from the private sector.

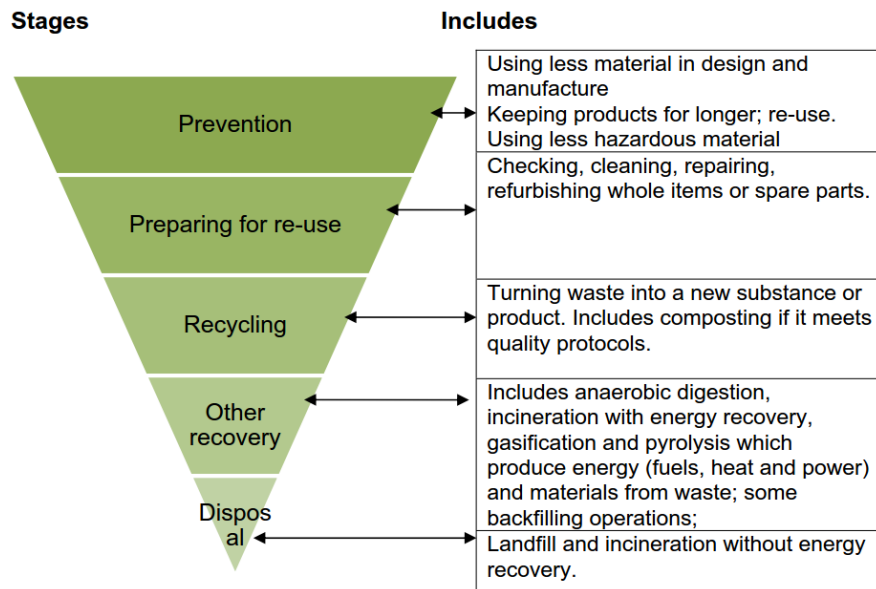


Figure 3.1: The waste hierarchy

source: Waste Management Plan for England, Defra, December 2013

- 3.7 Significant financial savings have been realised by business: for example, 1.2 million tonnes of food and packaging waste generation was prevented over the first phase of the “Courtauld Commitment”<sup>13</sup>, with a monetary value of £1.8 billion, while the second phase prevented the generation of 1.7 million tonnes of commercial waste, saving £3.1 billion.
- 3.8 It is difficult to predict the future regulatory framework for waste in the UK, and there are no specific measures that can be used to predict significant changes in waste arising or its management during the lifetime of this Plan with any certainty; however, development on the implementation of the circular economy will be followed closely and looked at through monitoring measures proposed in chapter 17. Changing wasteful practices could have a significant financial impact, help increase competitiveness and resource security, and therefore, protect against price volatility<sup>14</sup>, as well as contributing to reductions in emissions of greenhouse gases. The Local Plan seeks to encourage such developments.

### Assessing waste management needs for Cumbria

- 3.9 In 2014, the County Council commissioned an assessment<sup>15</sup> of the need for new waste management infrastructure and facilities during the Plan period, as

<sup>13</sup> The Waste Prevention Plan for England, Defra, December 2013 (page 26)

<sup>14</sup> The Waste Prevention Plan for England, Defra, December 2013 (page 25)

<sup>15</sup> Evidence Base document reference LD 267:Cumbria County Council Waste Needs Assessment, Urban Vision, December 2014

required by PPG<sup>16</sup>. This was based partly on data for calendar year 2013 from the Environment Agency, and partly on a survey of commercial and industrial waste conducted in 2009, projected forward to 2013. The 2014 Waste Needs Assessment (WNA) was used to develop predictions of further capacity required immediately and at relevant interim dates up to 2030. Potential sites to accommodate such capacity were proposed in the February 2015 version of the draft Local Plan.

- 3.10 In October 2015, the Environment Agency published its Waste Data Interrogator (WDI) and Hazardous Waste Data Interrogator (HWDI) containing data on waste movements into and out of licensed waste facilities in calendar year 2014. This enabled a revised 2015 WNA<sup>17</sup> to be developed for Cumbria, in order to re-assess the need for further waste infrastructure in the county over the Plan period. The 2015 WNA was developed jointly with the Lake District National Park Authority and includes additional analysis of waste growth in previous years, as well as further investigation of the ongoing landfill requirements for the county.

*Current waste arisings and wastes managed within Cumbria*

- 3.11 Total waste arisings in Cumbria in 2014, are summarised in Table 3.1; figures include both wastes managed within the county and those exported to appropriate facilities outside the county, for management. The Table does not include sewage or agricultural waste, except where these enter a licensed waste facility, nor does it include radioactive waste.

<b>WASTE STREAM</b>	<b>ARISINGS</b>
Local Authority Collected Waste (LACW)	266.2 <sup>A</sup>
Commercial Waste (C)	204.7 <sup>W</sup>
Industrial Waste (I)	359.6 <sup>W</sup>
Construction and Demolition Waste (C&D)	176.0 <sup>W</sup>
Excavation Waste (E)	438.0 <sup>W</sup>
Hazardous Waste (H)	22.7 <sup>W</sup>
<b>TOTAL OF ALL STREAMS</b>	<b>1,463.3</b>
<sup>A</sup> Actual - source WDA	
<sup>W</sup> Derived from EA waste figures in WDI or HWDI	

Table 3.1: Waste arisings in Cumbria 2014 (thousand tonnes)  
source: 2015 WNA

- 3.12 The Local Authority Collected Waste (LACW) data was provided by the County Council, as the Waste Disposal Authority (WDA), and these arisings in Table 3.1 include a small amount of trade waste as well as household waste. The hazardous waste arisings have been collated from the 2014 HWDI and arisings in all other waste streams have been derived from the general 2014 WDI. The 2015 WNA includes an explanation of the methodology and

<sup>16</sup> PPG paragraph 022, chapter 28 Waste (ID: 28-022-20141016)

<sup>17</sup> Evidence Base document reference LD300: Joint LDNPA and CCC Waste Needs Assessment, December 2015

definitions of the waste streams above, which have been developed to provide usable predictions whilst avoiding spurious accuracy.

- 3.13 The total wastes arising in Cumbria in 2014 are slightly less than those estimated as arising in 2013. This does not indicate a reduction year on year, but is the result of the amended methodology of the 2015 WNA. The two main changes are firstly, that the commercial and industrial waste arisings are now based on actual 2014 data rather than the projection of a 2009 survey, and secondly, that double counting of wastes that are moved through more than one facility have been estimated and excluded.
- 3.14 The 2015 WNA also considered wastes managed at licensed sites within Cumbria in 2014 (Table 3.2). These tonnages include imports from other waste planning authority areas, and also the wastes currently double handled at bulking and transfer facilities. These movements and the facilities where they are received are in response to the geography of Cumbria and need to be accommodated.

WASTE STREAM	INTERNAL	IMPORTS	TOTAL
Commercial and Local Authority Collected Waste	537.9	13.2	551.5
Industrial Waste	239.1	65.4	304.5
Construction and Demolition Waste	196.9	187.1	473.5
Excavation Waste	454.6	18.9	383.9
Hazardous Waste	3.3	13.4	16.7
<b>TOTAL</b>	<b>1,431.8</b>	<b>297.9</b>	<b>1,729.7</b>

Table 3.2: Waste managed within Cumbria in 2014 (thousand tonnes)  
source: 2015 WNA

- 3.15 It is evident that current waste tonnages were being accommodated in 2014, and there are no immediate capacity gaps for Cumbria; there could indeed be spare capacity in the existing Cumbria waste facilities. Table 3.3 provides details of known capacity (excluding landfill, which is provided in Table 3.9) at built facilities across Cumbria at the end of 2014; when available landfill capacity is added to this figure, the total capacity available exceeds that required to manage all the waste that arose. Furthermore, the Waste Data Interrogator for calendar year 2015 indicates that there is a further 300,000 tonnes of capacity available<sup>18</sup>. The potential need for additional waste facilities during the lifetime of the Local Plan was examined in terms of waste growth, changes in imports and exports, increased diversion from landfill and a corresponding need for new built facilities for recycling or recovery. Possible closures of facilities were also considered.

<sup>18</sup> The 2015 WDI was released during the MWLP examination, but data in the Local Plan and 2015 Waste Needs Assessment are based on the 2014 WDI

Facility Type	Available capacity
Biological Treatment	122,545
Civic Amenity Site	46,777
Car Breaker	6,193
Composting	84,502
Use of waste in Construction	12,708
Deposit of waste to land (recovery)	48,228
Hazardous Waste Transfer	82,565
Hazardous Waste Transfer/Treatment	94,329
Inert Waste Transfer/Treatment	184,686
Metal Recycling	30,541
Non-Hazardous Waste Transfer	192,720
Non-Hazardous Waste Transfer/Treatment	85,205
Physical Treatment	380,917
Physical-Chemical Treatment	5,545
Use of waste for Reclamation	44,586
Vehicle Depollution Facility	2,694
WEEE treatment facility	1,205
<b>Total Capacity</b>	<b>1,425,945</b>

Table 3.3: Waste capacity (tonnes) in Cumbria by facility type – 2014  
source: EA WDI 2014

### *Growth profile and future waste management needs*

- 3.16 Building on the detailed work of the previous WNA, the 2015 WNA forecasts the change in waste generated in Cumbria, and also estimates the potential effect of future changes in waste management practices on the need for waste facilities. Historic data from WDIs for previous years, was assessed for the total arisings of wastes managed (Figure 3.2). These show waste reducing during the 2008 to 2011 recession, with a recovery of waste growth since 2011. The average annual rate of growth<sup>19</sup> for all waste streams managed in Cumbria from 2006 to 2014 is 2.84%; however, the different waste streams have not changed by the same rate, or for the same reasons, and the overall rate of growth is highly unlikely to continue until the end of the Plan period in 2030.
- 3.17 When examining the historic data for the separate waste streams managed in Cumbria (see Appendix B of the 2015 WNA for graphs), the 2015 WNA concludes that inert wastes are a significant component in the growth of overall wastes, with a growth rate from 2006 to 2014 of 11.46%. Within the inert wastes over this period, total construction and demolition (C&D) wastes grew at an average rate of 25.42% per year, whilst excavation (E) waste increased at 5.76% per year on average. National planning guidance<sup>20</sup> suggests that these increases represent improvements in recovery of CD&E wastes as a result of regulatory changes, such as the Aggregates Levy, the landfill tax and producer responsibility measures.

<sup>19</sup> Compound Annual Growth Rate (CAGR) – see Glossary

<sup>20</sup> PPG paragraph 033, chapter 28 (ID: 28-033-20141016)

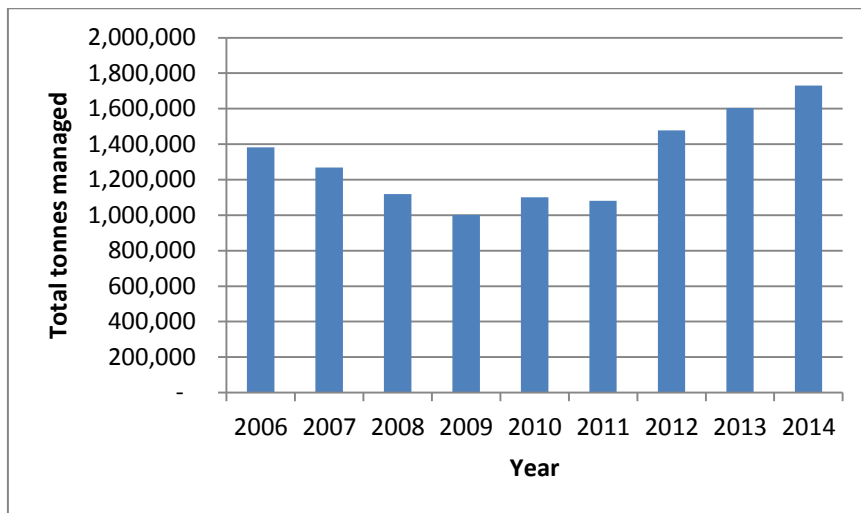


Figure 3.2: All wastes managed in Cumbria 2006 to 2014

source: EA Waste Data Interrogators

- 3.18 The tonnages of hazardous waste managed in Cumbria have reduced by 6.7% per year on average since 2006, even though hazardous arisings in Cumbria have risen by 18.6% in the same period. Exports of such wastes out of Cumbria have clearly increased for reasons discussed in both the 2014 and 2015 WNA, which conclude that this should be accepted as a sustainable and market led approach, due to the geography of the county and the economies of scale needed to make such facilities viable. However, should operators seek to develop a facility to manage hazardous waste in Cumbria, each proposal would be considered on its own merits and determined using the appropriate Development Control policies.
- 3.19 The amount of household waste collected by District Councils in Cumbria fell by an average annual rate of 3.55% from 2006/7 to 2014/15 and the amount of municipal waste, which includes some trade waste, fell by 3.48% per year on average across the same period. This reduction was, however, largely in the first two years, and the quantity of waste collected has remained very stable since that time.
- 3.20 Commercial and industrial waste data in the 2006 WDI has significant discrepancies, so this waste stream was examined from 2007 to 2014. In this period, industrial waste grew by 8.36% per year on average, while household and commercial waste grew by 5.67% per year. Given the reduction in LACW waste, this shows a strong rise in commercial waste.
- 3.21 As in the 2014 WNA for calendar year 2013, the 2015 WNA also estimated arisings of 2 million tonnes of agricultural waste in Cumbria for 2014; this is discussed later in this chapter. Wastes arising from existing wastewater infrastructure are included in the relevant category of waste above, and the potential need for new wastewater infrastructure capacity is dealt with later in this chapter.
- 3.22 The 2015 WNA developed a high, medium and low scenario for the growth profile of each waste stream at key points within the Plan period; these constitute estimations, to demonstrate the effect on the requirement for waste facilities, and will need to be reviewed as part of the monitoring of this Local

Plan. Full detail on the individual scenarios is set out in the 2015 WNA (chapter 7 and Appendix B).

3.23 The scenario taken forward by the needs assessment is the realistic scenario. All three scenarios use the same growth assumptions for LACW, C&I and hazardous wastes, with differing options for CD&E waste. The realistic scenario is considered the most appropriate, as this accounts for expected changes in the levels of Excavation waste and Construction & Demolition waste; the growth in excavation waste is closely linked to planned major infrastructure in the county. Although exact figures are not yet known, there is some indication that around 2.5 million cubic metres of excavation spoil may arise as a result of developments such as new nuclear build and the associated upgrade of the National Grid network under the North West Coast Connections project; such forecasts and the estimated timescales for the projects are incorporated into the modelling for this WNA. In respect of C&D waste, the realistic scenario assumes some growth, but that materials are re-used, recycled or used onsite in place of primary aggregates, and thus assumes lower levels of waste generation. Table 3.4 shows projected arisings at 5 year intervals over the Plan period.

	Baseline 2014	2015	2020	2025	2030	2015-2030
LACW	266,212	268,422	279,748	291,551	303,853	4,572,733
Commercial	284,896	286,719	296,013	324,266	353,650	5,020,336
Industrial	304,489	306,611	317,447	329,041	345,483	5,188,080
<b>Non-inert total</b>	<b>855,597</b>	<b>861,752</b>	<b>893,207</b>	<b>944,858</b>	<b>1,002,986</b>	<b>14,781,150</b>
Construction & Demolition	383,988	387,828	407,611	428,403	428,403	6,627,957
Excavation	473,486	482,956	533,222	747,872	642,223	9,743,592
<b>Inert waste total</b>	<b>857,474</b>	<b>870,784</b>	<b>940,833</b>	<b>1,176,275</b>	<b>1,070,626</b>	<b>16,371,550</b>
Hazardous waste - average last 5 years	16,659	20,600	20,600	20,600	20,600	329,600
<b>All totals in tonnes</b>	<b>1,729,730</b>	<b>1,753,136</b>	<b>1,854,640</b>	<b>2,141,733</b>	<b>2,094,212</b>	<b>31,482,299</b>

Table 3.4: Predicted waste arisings in Cumbria 2015 to 2030 (tonnes)  
source: Waste Needs Assessment 2015, Appendix B, Table B4

#### *Imports and exports of waste*

3.24 The County Council has monitored waste movements across the administrative boundaries of Cumbria since 2006, although import data was less reliable until 2010 (see Table 3.5), in order to inform co-operation with other Waste Planning Authorities (WPAs) in both England and Wales, and in Scotland. These figures include both hazardous and non-hazardous waste.

Movements	2010	2011	2012	2013	2014
Exports	249,248	260,742	175,041	178,936	187,343
Imports	213,462	206,866	323,927	318,558	288,735
Balance	-35,786	-53,876	+148,886	+139,622	+101,392

Table 3.5: Cumbria recorded waste exports and imports (tonnes) 2010 to 2014  
(excluding Scotland)  
source: EA Waste Data Interrogators, 2014



3.25 Exports and imports in 2014, including those to and from Scotland and non-codeable movements, are summarised in Table 3.6. The analysis of cross border movements in the 2014 and 2015 WNAs indicates firstly, that the volumes of waste imported to Cumbria and exported from Cumbria are not disproportionate. More detailed analysis in the 2015 WNA demonstrates secondly, that the majority of exported material is non-hazardous industrial waste or from the county’s Mechanical and Biological Treatment (MBT) plants. This is because much of this waste requires specialist facilities, including thermal treatment/Energy from Waste (EfW) plants for the Refuse Derived Fuel (RDF) produced by the MBT plants.

2014	Non-inert: Household and C&I	Inert: CD&E	Hazardous	TOTAL
<b>Exports</b>	250.1	58.4	19.0	327.6
<b>Imports</b>	78.6	205.9	13.4	297.9
<b>Balance</b>	-171.5	+147.5	-5.7	-29.7

Table 3.6: Comparison of controlled waste exports and imports to Cumbria (thousand tonnes)

source: EA Waste Data Interrogators, 2014

3.26 Thirdly, the county imports more CD&E wastes than it exports. Detailed analysis shows that approximately 170,000 tonnes of this is rail ballast imported by rail for treatment at sidings in Carlisle; the ballast is then exported around the UK for reuse, so to all intents and purposes, counts as ‘null’. Apart from this, the county is virtually self-sufficient in management facilities for CD&E wastes. This is not surprising, as these wastes are heavy and costly to transport long distances, and relatively simple facilities are required to recycle them and to dispose of the residual waste.

3.27 Treatment of hazardous waste, by contrast, can be complex, and the tonnages to be treated are small. The 2014 WNA included a detailed analysis of hazardous waste movements, and the specialised treatment and disposal facilities required, and concluded that current exports and imports of hazardous wastes are likely to continue. There is also some evidence that both imports and exports of hazardous waste enable existing capacity to be used effectively and efficiently, and recycling to be maintained, without resulting in local over-capacity. The analysis, therefore, assessed future needs for hazardous waste management facilities in Cumbria on the basis of an extrapolation of the waste managed within Cumbria (15,540 tonnes in 2013) rather than arising in Cumbria (27,762 tonnes in 2013). These figures have been updated for 2014 calendar year, which indicate that 16,659 tonnes were managed in Cumbria against a total of 22,336 tonnes arising in Cumbria.

*Current management of municipal waste*

3.28 Local Authority Collected Waste (LACW, formerly known as municipal waste) includes household, commercial and industrial waste that the District Councils collect, rubble from Household Waste Recycling Centres and grounds maintenance waste. Local Authorities are responsible for managing LACW in their area. Cumbria County Council is responsible for the disposal of waste collected by the Lake District National Park Authority and the District Councils.

The County Council and Cumbria District Authorities formed the Cumbria Strategic Waste Partnership (Resource Cumbria) to deliver a Joint Municipal Waste Management Strategy (JMWMS)<sup>21</sup> 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.

- 3.29 The Cumbria District Councils (including from the Lake District National Park and that part of the Yorkshire Dales National Park that lies in 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 (LACW) management contract, between the County Council and Shanks Group PLC.
- 3.30 Shanks operate two MBT plants, each with a capacity of 75,000 tonnes per annum (tpa), one at Hespian Wood near Carlisle and one at Barrow-in-Furness; they commenced operation in 2012 and 2013 respectively. Household Waste Recycling Centres (HWRCs) are also managed within the contract. The management of wastes, sorted or otherwise treated at these facilities, is therefore now a commercial decision for the contract partner.
- 3.31 The MBT plants process the mixed household waste that is collected from the kerbside, plus the small amount of suitable trade waste collected by the District Waste Collection Authorities. The metal content is recovered for recycling. A Refuse Derived Fuel (RDF) product is produced by the MBT plants as the final output. Some other residues can be processed further to recover additional value, and a further fraction is landfilled. A total of 116,093.81 tonnes of household waste was processed in the two MBT plants in 2014. The RDF that is produced, is exported out of the county under current contract arrangements.
- 3.32 Table 3.7 shows the management mix for all household waste in 2014, including the respective tonnages from the MBT plants and the HWRCs.

Landfill	Material Recovery	Transfer	Treatment	Use of Waste
14%	2%	37%	46%	0%

Table 3.7: Management of Cumbria household waste 2014

source: EA WDI 2014

- 3.33 Recycling and composting source separated waste collected at the roadside remains the responsibility of the six Cumbrian District Waste Collection Authorities, who continue to develop waste minimisation initiatives and improvements in separation of wastes by households. In calendar year 2013, 49% of all LACW and 47% of household wastes were recycled or composted, well on the way to meeting the European Waste Framework Directive target of 50% by 2020, but also to the JMWMS target of 55%.

<sup>21</sup> Evidence Base document reference LD38: Joint Municipal Waste Management Strategy (2008-2020), Cumbria Strategic Waste Partnership

### Current management of other wastes

- 3.34 The Waste Data Interrogator provides considerable detail about all types of waste movements in and out of individual waste management facilities. The management mix for waste was derived from the WDI.
- 3.35 The estimated quantities of wastes that should have been managed in Cumbria in 2014, if all Cumbria arisings were provided for in the county, is shown in Table 3.8. The figures do not tally precisely with Table 3.1 due to some reassignment between streams, e.g. rubble from the LACW stream and removal of hazardous waste from CD&E streams.

Waste stream	Landfill	Material Recovery	On/In land	Transfer	Treatment	Use of waste
C&I	221,574.56	26,341.43	48,227.81	110,208.47	692,364.05	55,660.62
C&D	14,710.09	277.09	175.92	79,033.14	298,287.47	2,735.85
E	149,700.37	0	47,135.77	23,527.13	187,332.46	54,558.04
<b>TOTAL</b>	<b>385,985.02</b>	<b>26,618.52</b>	<b>95,539.50</b>	<b>212,768.74</b>	<b>1,177,983.98</b>	<b>112,954.51</b>
C&I = Commercial & Industrial; C&D = Construction & Demolition; E = Excavation						

Table 3.8: Management of key non-LACW wastes in Cumbria 2014  
source: 2015 WNA

- 3.36 Hazardous waste is analysed in considerable detail in the WNA, but is actually a sub-set of the principal waste streams: 38% being commercial and industrial waste; 21% is from organic chemical processes; 20% C&D waste; 10% municipal waste; 10% not specified; and 1% are solvents. The C&D wastes are primarily asbestos-containing. The management method required for hazardous wastes are, therefore, specific to the nature of the material; their fates are shown in Figure 3.3.
- 3.37 Management of agricultural wastes arising in Cumbria was estimated by the 2014 WNA<sup>22</sup> to be mainly (96.7%) carried out on site, primarily through land recovery, composting or other treatment, and only 3.3% (approximately 68,000 tonnes) off site. Of this total, 57,000 tonnes was probably recycled or re-used off site, leaving around 7,000 tonnes incinerated at specialised facilities and 4,000 tonnes being managed through other third party waste sites. This situation is unlikely to have changed radically in calendar year 2014, or indeed since, and the agricultural waste that did enter licensed facilities is included in the general analysis in the 2015 WNA.

<sup>22</sup> Evidence Base document reference LD267: Cumbria 2014 WNA, Table 6.3, based on the Defra 2010 survey of the number, scale and type of agricultural holdings with data reported at County or Local Authority level at 5 year intervals back to 1995

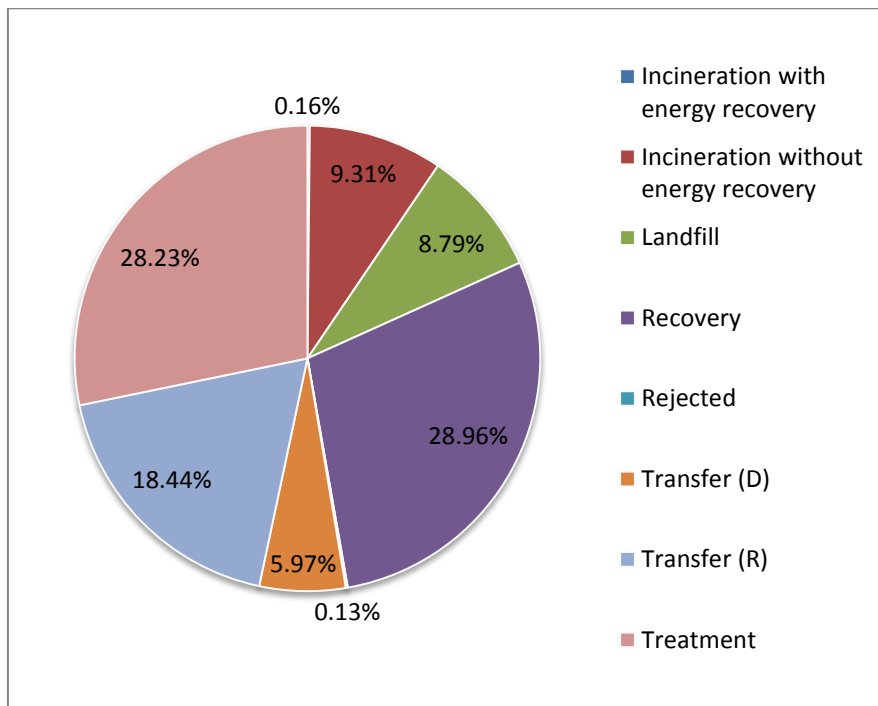


Figure 3.3: Fate of hazardous wastes arising in Cumbria in 2014  
source: EA Hazardous WDI 2014 (figures in tonnes)

3.38 There are a number of Anaerobic Digestion plants in Cumbria, processing both slurry and food crops to create electrical energy via methane gas engines and digestate to be used as fertiliser. Some of these plants serve a single farm and are small enough to be built under exemptions, and only a small number accept waste from several farms. Chapter 6 (Climate Change) addresses this type of development and Development Control policy DC7 is set out to enable such plants to be developed and to encourage the maximum beneficial use of agricultural wastes.

### Current waste capacity

3.39 The 2015 WNA includes an assessment of waste capacity for built waste management facilities in Cumbria, based on past throughputs at existing sites and defined limits in planning permissions. It also includes an assessment of available landfill capacity, which has used information from planning permissions, including any limits on infill rate, closure dates and available void space. The current landfill capacity, together with the expiry dates of the planning consents, is tabulated in Table 3.9.

3.40 Under the current planning permission, Bennett Bank will continue to accept non-inert waste until December 2017, after which, capacity will be reserved for inert waste for restoration purposes; this will cease by December 2018, when restoration should be complete. Additional inert voidspace of 850,000m<sup>3</sup> will be created at Goldmire, with landfilling due to commence during 2017. Capacity at Flusco is expected to come on stream later in the Plan period and will provide at least 240,000m<sup>3</sup>, following extraction of limestone. Further development at Roan Edge is currently subject to a planning application, which is due to be determined in 2017; if permitted, this would increase the existing voidspace to around 510,000m<sup>3</sup>.

Site	Type	Voidspace (m <sup>3</sup> )	Closure
Bennett Bank	Non-inert	84,434	2017
Hespin Wood	Non-inert	1,579,253*	2020
Lillyhall	Non-inert	943,912	2029
Flusco	Non-inert	933,497*	2032
<b>TOTAL</b>	<b>Non-inert</b>	<b>3,541,096</b>	-
Derwent Howe	Inert	557,000	2016
Roan Edge	Inert	212,000	2016 <sup>23</sup>
<b>TOTAL</b>	<b>Inert</b>	<b>769,000</b>	-

Table 3.9: Estimated landfill voidspace in Cumbria as at 31 December 2014

source: Environment Agency

\*Hespin Wood and Flusco figures corrected by operator

- 3.41 Potential losses of a Material Recovery Facility (MRF) in 2019, two composting sites in 2019 and 2021, and a C&D recycling site in 2025, all due to the expiry of temporary planning consents, were taken into account in developing the WNA model.

### Trends in sustainable waste management

- 3.42 The waste disposed into landfills in Cumbria from the combined household, industrial and commercial (HIC) stream, has fallen significantly since 2005, as shown in Figure 3.4. This stream is biodegradable (i.e. non-inert) waste and must be deposited only in non-inert landfills. Some inert waste also needs to be deposited in these landfills as both daily cover and restoration material.

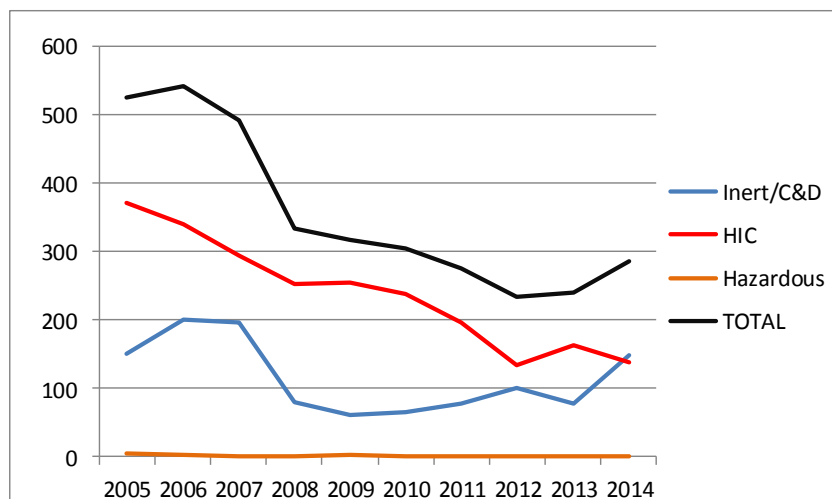


Figure 3.4: Landfill inputs to non-inert landfills 2005 to 2014 excluding restricted user<sup>24</sup> landfills (all figures in thousand tonnes)

source: EA NW Data Tables 2014 - landfill input trends

<sup>23</sup> time extension application to 2032 is under discussion

<sup>24</sup> i.e. it is not an 'open gate' landfill facility

### *LACW minimisation and recycling parameters*

- 3.43 The current JMWMS includes LACW waste minimisation and recycling targets, up to 2020; a new strategy is under consideration, and monitoring proposals for the Local Plan will pick up these changes once it is published. Initiatives by the Waste Collection and Disposal Authorities continue to develop, but certain aspects of the recent improvements in the management of household waste, such as the recovery of value through the municipal waste management contract, will continue at the current rate for the duration of the contract and, therefore, to the end of the Plan period. These rates were used in development of the 2015 WNA's "Pragmatic" case, while the LACW "Best" case drew on the European Commission revised Directive, which was proposed to amend recycling and other waste-related targets in the EU Waste Framework Directive 2008/98/EC, the Landfill Directive 1999/31/EC and the Packaging and Packaging Waste Directive 94/62/EC. Revised targets are currently proposed by the EU, as part of the Circular Economy Strategy discussed earlier.

### *C&I waste minimisation and recycling parameters*

- 3.44 In spite of the policy goals and economic drivers referred to in paragraphs 3.2 to 3.6, waste minimisation and recovery initiatives for commercial and industrial waste streams are very difficult to predict. They impact differentially on various waste streams and materials, because both the European and national waste policy target specific materials depending on their relative carbon and economic impacts. In addition, recent C&I waste minimisation initiatives have been voluntary, as opposed to the mandatory targets previously imposed. For example, "Courtauld 2025", which was launched in March 2016 and runs for 10 years, has a 20% food and drink waste reduction target, as well as a 20% target to reduce greenhouse gas emissions from food and drink production and retail, alongside a reduction in impact associated with water use in the supply chain<sup>25</sup>.
- 3.45 There is no empirical evidence yet of the overall impact on C&I arisings per unit of economic activity, although Defra<sup>26</sup> has established a methodology to use in future analysis and reporting<sup>27</sup>. The WNA concludes that it is reasonable to assume a 2% reduction per year until 2020, but in the absence of mandatory targets or a revised EU Directive on waste minimisation or the circular economy, the model assumes no resource efficiency improvements after that time. This is modelled in the WNA preferred scenario.
- 3.46 It is likely, however, that some of the recent improvements in LACW management practice are also being implemented in the C&I sectors, and that UK Government aspirations and actions set out in 2013<sup>28</sup> would lead to a decrease in C&I waste to landfill, and some increase in materials recycling and recovery. The waste industry itself is already moving towards a more resource

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<sup>25</sup> letsrecycle.com, 15 March 2016: <http://www.letsrecycle.com/news/latest-news/courtauld-4-sets-20-food-waste-reduction-target/>

<sup>26</sup> Evidence Base document reference ND129: New methodology to estimate C&I waste generation, Defra, August 2014

<sup>27</sup> <https://www.gov.uk/government/policies/reducing-and-managing-waste>

<sup>28</sup> Evidence Base document references ND84 and ND117: Defra, December 2013

efficient way of managing the materials it collects and seeks to recycle/recover value where it can. Should the EU target of a maximum of 10% landfill by 2030 be adopted, increased levels of diversion from landfill may be realised.

*Forecasting other waste arisings*

- 3.47 CD&E waste arisings were modelled on the same economic and employment growth forecasts as the other wastes, and no waste reduction or further diversion from landfill is assumed. Hazardous waste growth forecast is moderated on recent trends, with a waste reduction of 0.6% a year for the next 5 years only. Current cross border movements are assumed to continue because, given the technical and economic constraints and the low volumes, it would be unrealistic to expect the necessary infrastructure to emerge.
- 3.48 Agricultural waste arisings were assumed to remain unchanged, as no evidence to substantiate significant changes has been found. Wastewater and sewage arisings are assumed to rise with population growth, but are included in the C&I waste totals.

Reported exempt activity	Agricultural only	Agricultural and Non-agricultural	Non-agricultural only
Aerobic composting and associated pre-treatment	504	169	18
Burning waste as a fuel in a small appliance	513	230	16
Burning waste in the open	2388	662	66
Cleaning or spraying relevant waste	501	163	12
Deposit of plant tissue under a Plant Health notice	826	-	-
Deposit of sludge from dredging inland waters	1870	497	30
Sorting and de-naturing of controlled drugs for disposal	-	-	120
Spreading of waste or plant matter	1808	750	39
Storage of sludge	-	-	268
Storage of waste	347	195	48
Storage of waste in a secure place	472	245	91
Treatment of sheep dip	222	-	-
Treatment of waste wood by chipping, etc.	1066	418	30
Use of mulch	254	179	18
Use of waste for a specified purpose	1572	730	211
Use of waste in construction	1235	1289	419
Other activities	1502	970	316
<b>TOTAL number of exemptions</b>	<b>15,080</b>	<b>6,497</b>	<b>1,702</b>

Table 3.10: Overview of principal waste exemptions (number)

source: Environment Agency 2014

3.49 In addition to waste managed at licensed sites, exemptions<sup>29</sup> also play a role in managing Cumbria's waste. Information provided by the Environment Agency shows that there were over 23,000 simple waste management exemptions issued in the county in 2014; Table 3.10 provides details on reported exempt activity (by number) at sites across Cumbria. Almost two-thirds of the exemptions relate to agricultural activities only, which allow storage or disposal of wastes on the holding where the wastes arose and, therefore, do not need to be taken into account in the needs assessment. Although it is recognised that infrastructure provided at sites that have been issued with exemptions make some contribution to local waste management capacity, it is not possible to identify this accurately. However, it is assumed that this route of waste management will continue and will provide capacity equivalent to existing levels.

### **Need for additional waste management infrastructure**

3.50 Section 10 of the 2015 Waste Needs Assessment provides a summary of the capacity requirements over the Plan period. Appendix B, Tables B4 to B6 of the 2015 WNA, provide a detailed breakdown of waste growth and waste minimisation initiatives over the Plan period, and the requirements for managing waste that result from this. The needs assessment concludes that the capacity requirements identified are deliverable over the Plan period.

3.51 The key conclusions from these tables in the 2015 WNA are as follows:

- There is sufficient non-inert landfill void capacity for the Plan period under both scenarios **if all current consents were granted time extensions at the end of their current expiry dates.**
- The low inert landfill capacity remaining by 2030 under the "Pragmatic case" would be even lower **if no time extensions were 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. Should the consent not be extended, a capacity gap in the order of 57,000 tonnes would occur for treating compostable waste arising in Cumbria, increasing to up to 85,000 tonnes, if waste that is currently imported is also included.
- 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 permission was granted late 2016

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<sup>29</sup> Exemptions provide a simplified licensing structure for waste activities with limited environmental risk, occurring typically on a very small scale for specific purposes. Exemptions have to be renewed every 3 years, which also indicates that they tend to occur on a one-off basis or over a limited period.



which, when built, will provide for up to 195,000tpa, more than sufficient capacity to meet this need.

- 3.52 It should be noted that these conclusions are necessarily based on many assumptions. The parameters used for both scenarios are cautious as regards waste minimisation, and the total quantities of C&I waste in particular would be much reduced if ambitious statutory targets were to be imposed, or if economic imperatives drove genuine implementation of the circular economy for resource utilisation. However, the County Council considers that the conclusions provide a sound and evidence based direction for policy formation, whilst the inherent uncertainties underline the need for flexibility and responsiveness in the overall provision within the Plan.

#### *Landfill*

- 3.53 The 2015 WNA identifies a need for between 1.6 million and 2.5 million cubic metres of non-inert landfill capacity over the Plan period. These are approximate figures because, although reasonable predictions for the quantity of residual household waste still being landfilled by 2030 are possible, there are no reliable forecasts about how much waste minimisation measures and diversionary technologies will reduce the amounts of non-inert (i.e. biodegradable) commercial and industrial waste deposited into landfill. Investigation of cross-boundary waste exports indicates that a small proportion of Cumbria’s residual non-inert waste is currently landfilled outside the county, and some of these landfills have limited life or space. Cumbria should take responsibility for waste arising within the county, and landfill capacity should be available when required, in order to comply with national guidance<sup>30</sup> and with Strategic Policy SP2. Table 3.11 provides details of the anticipated tonnages and voidspace for the WNA’s realistic scenario, which the Plan is seeking to deliver.

Year	2015	2020	2025	2030	2015-2030
tonnes of non-inert waste to landfill	140,290	145,411	153,820	163,283	1,580,031
assumed voidspace requirement m <sup>3</sup>	140,000	145,000	154,000	163,000	1,580,000

Table 3.11: Non-inert landfill requirements in Cumbria 2015 to 2030  
source: Waste Needs Assessment 2015 (tonnes to m<sup>3</sup> conversion assumed 1:1 ratio)

- 3.54 The remaining capacity provided by the current planning permissions for the non-inert landfills in Cumbria, is likely to be sufficient to meet all scenarios modelled through the WNA, but planning permissions for some of that landfill capacity expire within the Plan period. If planning applications for time extensions for landfills with remaining available voidspace do not come forward or are not granted, additional sites or physical extensions elsewhere could be required.
- 3.55 If, however, the annual Authority Monitoring Report process and review of the WNA model shows that waste minimisation and improved recycling is sharply reducing the quantities of waste being landfilled, proposals to provide excess capacity will be discouraged in order to maintain a “close-fit” of land allocation

<sup>30</sup> PPG paragraph 007, chapter 28 Waste (ID: 28-007-20141016)

with capacity requirements<sup>31</sup>. Such an approach is required, because over-provision of permitted capacity could hinder initiatives for more sustainable waste management, and delay the completion and restoration of the existing landfills.

- 3.56 The predictions with respect to non-inert landfill requirements indicate that a flexible policy framework is required to ensure that there is not an over-provision of landfill. Under-provision, however, could place pressure on remaining landfill capacity in neighbouring authorities. Bennett Bank Landfill was granted planning permission in 2015 to revise its restoration scheme, thereby reducing landfill capacity by 200,000 m<sup>3</sup> and removing phase 7 of the approved scheme; completion is required by the end of 2017. In contrast, a time extension application at Hespín Wood has been under discussion in advance of its expiry date in 2020, and approximately 400,000m<sup>3</sup> additional capacity was suggested by the operator<sup>32</sup>, which could potentially be considered if a need was demonstrated<sup>33</sup>. It is, therefore, not considered necessary to define additional non-inert landfill capacity and no landfill sites are identified in the Site Allocations chapter.
- 3.57 A substantial proportion of inert waste can be driven up the waste hierarchy for use as an alternative aggregate. The disposal of residual inert waste should, as a first priority, be directed to landfill engineering works, mineral workings or derelict land requiring fill for agreed restoration schemes. Proposals for new or extended inert waste landfill will need to demonstrate that they will not undermine the availability of such waste material for these uses, or for non-inert landfill engineering, and do not conflict with the County Council's culverting policy as the Lead Local Flood Authority.
- 3.58 The need for inert landfill capacity during the Plan period may be affected by a number of major infrastructure proposals, if they all come to fruition, including new nuclear capacity, national grid and water supply infrastructure. A need for colliery spoil disposal could also arise if current drift mining proposals are progressed.
- 3.59 Ongoing provision for inert landfill at Roan Edge would require a time extension early in the Plan period; an application for a 15 year time extension to 2031 was submitted in October 2016. Although still awaiting supporting data, a further application is expected for a physical extension to Roan Edge, which together with the current voidspace, will provide around 510,000m<sup>3</sup> capacity. There is planning consent for inert landfill capacity at Flusco (at least 240,000m<sup>3</sup>) and at Goldmire Quarry (850,000m<sup>3</sup>); they are both reliant on mineral extraction to provide the voidspace. After some years of prior extraction and engineering preparation, Goldmire will become operational in 2017; Flusco will come on stream later in the Plan period. Thackwood landfill is no longer operational, but recent pre-application talks indicate that it may be restored with inert material, though the volume would be very small. The

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<sup>31</sup> PPG paragraph 038, chapter 28 Waste (ID: 28-038-20141016)

<sup>32</sup> Submission under Article 30 of the Town and Country Planning (Development Management Procedure Order) (England) 2010, Stephenson Halliday, 28 February 2011

<sup>33</sup> in mid-2017, planning permission was granted for a time extension to 2039 and additional capacity of 240,000m<sup>3</sup> at Hespín Wood

operator of Derwent Howe inert landfill is currently developing a scheme to cap and landscape this site, which is also no longer operational.

- 3.60 It is considered that an overly restrictive policy approach to new inert landfill should be avoided, whilst ensuring that inert landfill capacity to meet specific needs, if and when they arise, do not undermine the waste hierarchy. It is also important to recognise the role that non-inert landfill plays in managing inert waste, this is clear when looking at how inert waste to landfill was disposed of in 2014, which indicated that just 10% went to inert landfill sites with the remaining going to non-inert sites. In addition, the Environment Agency estimate that 25% of the capacity of non-inert sites will be taken up by inert waste; therefore, the capacity needs for inert waste disposal should not be considered in isolation. Table 3.12 provides details of the anticipated tonnages and voidspace for the WNA’s realistic scenario, which the Plan is seeking to deliver.

Year	2015	2020	2025	2030	2015-2030
tonnes of inert waste to landfill	167,646	184,815	257,262	221,743	3,365,966
assumed voidspace requirement m <sup>3</sup>	112,000	123,000	172,000	148,000	2,244,000

Table 3.12: Inert landfill requirements in Cumbria 2015 to 2030  
source: Waste Needs Assessment 2015 (tonnes to m<sup>3</sup> conversion assumed 1.5:1 ratio)

#### *Mixed recycling*

- 3.61 The 2014 WNA reported that Cumbria Waste Management Ltd (CWM) are already managing C&I waste in existing facilities, alongside LACW; therefore, it is considered that these facilities can meet this shortfall without the need for provision of additional capacity. An overall “excess” capacity of around 170,000tpa in recycling capacity would remain by 2030 for both C&I and LACW, even under the “Best case” scenario with maximum recycling.
- 3.62 Experience would indicate that an additional number of small sites or extensions to existing small sites may be sought, particularly in areas where there are already a number of mixed waste recycling or skip hire operators. These “Broad Areas” are discussed in paragraphs 3.80 to 3.83.

#### *Composting*

- 3.63 The need for composting sites identified in paragraph 3.48, arises from the potential closure of one 25,000tpa composting facility adjacent to the Thackwood landfill site, and one 75,000tpa facility that is adjacent to Hespian Wood landfill. The temporary planning consent for the latter development is directly linked to the continued operation of the Hespian Wood landfill site, which has a permission end date of 2020, and would automatically be extended if a time extension for the landfill site were to be granted<sup>34</sup>. If it were granted, no further composting sites would be required in the Plan period. If not, one additional site of 85,000tpa capacity would be sufficient.

<sup>34</sup> in mid-2017, planning permission was granted for a time extension at Hespian Wood, to 2039; therefore, the adjacent composting facility has also received a time extension

### *Thermal treatment and energy from waste*

- 3.64 The municipal waste contract currently produces both RDF and Solid Recovered Fuel (SRF) as part of the solution to manage Cumbria's LACW. At present, there is no infrastructure in Cumbria to utilise this fuel, although sites for such plants have been discussed with its potential users. The allocation of sites for Energy from Waste plants to utilise the RDF arising from Cumbria's municipal waste stream, is a matter to be considered in this Local Plan. The destination of the RDF is, however, a decision for the municipal waste management contract holder. It is also relevant that Shanks obtained planning consent for a gasification plant in Derbyshire in 2013, which would create electricity from RDF, and has secured funding for its construction to commence<sup>35</sup>; it is due to open in early 2017.
- 3.65 The relative advantages of exporting this waste or developing new facilities in the UK are not clearly defined, as was identified by a Parliamentary Committee of the Environment, Food and Rural Affairs Committee. The Committee published their Fourth Report on waste management in England on 15 October 2014<sup>36</sup>, which included recommendations to Defra, based on the evidence presented to the Committee. One of the recommendations was that a study be undertaken on this issue. Over-provision of Energy from Waste facilities is likely to frustrate the movement of waste up the waste hierarchy, as facilities seek feedstock to support the viability of the plant; whilst on the other hand, export of RDF is contrary to the proximity principle.
- 3.66 The WNA concentrates on waste managed and is not looking at providing a specific range of facilities to increase recycling/recovery rates, but is leaving this up to the industry to decide, dependant on market response. However, the WNA does recognise the need for thermal treatment for C&I waste, and this could feasibly be through a site handling both C&I and LACW. If 75,000tpa is considered a viable plant size, a need for one plant in Cumbria during the Plan period would be reasonably likely. As technology develops further, smaller plants may be feasible, enabling a number of smaller facilities to develop, possibly with specific manufacturing processes dealing with their own waste on site. For example, First Milk's creamery site in Aspatria, which has recently commissioned plant that turns cheese-making residues into bio-methane.
- 3.67 Theoretically, any plant developed to recover energy from RDF from the LACW stream could also be used to treat commercial and industrial waste. However, this could not be assumed or planned for, because these would be market led facilities, neither is this Plan able to predict which technologies are likely to develop or be viable in the Cumbrian context. It is, therefore, considered that this Plan should provide for two thermal treatment developments, whilst also providing a positive framework for developments on these or other suitable sites for both thermal and non-thermal Energy from Waste plants, such as anaerobic digesters or gasification plants.

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<sup>35</sup> <http://www.shanksmunicipal.co.uk/news/shanks-successfully-secures-funding-for-27-year-derby-city-and-derbyshire-ppp-contract>

<sup>36</sup> <http://www.publications.parliament.uk/pa/cm201415/cmselect/cmenvfru/241/24102.htm>

### *Household Waste Recycling Centres*

- 3.68 A need for additional HWRC capacity has been identified, due to the planned closure of sites at Kendal, Workington and Frizington.

### *Hazardous waste*

- 3.69 The remaining landfill site taking hazardous waste in Cumbria has decreased the capacity of its cell; this is due to falling input volumes, which meant that the cell was not keeping pace with the surrounding cells. The WNA does not identify a capacity gap for hazardous waste management facilities, due to focusing on waste managed rather than arising, and the recognition that such waste is currently exported outside the area for management. If a gap in provision of hazardous waste landfill capacity in the county is identified during the Plan period, unless the industry brings forward a new site, it is unlikely this need will be met locally. It may be feasible for a sub-regional facility to be developed, but due to the geography of the Plan area, it may not in practice be feasible to build a facility in the county. Cumbria is a net exporter of hazardous waste, but the quantities of each type of material are small. Should the waste industry conclude that developing such a facility in the Plan area would be economically viable, each proposal would be considered on its own merits and determined using the appropriate Development Control policies.

### *Agricultural and sewage waste*

- 3.70 The 2014 WNA did not identify any current or predicted gaps in provision for agricultural waste. Data is no longer specifically collected on agricultural waste by the Environment Agency; thus all arisings that leave farms and enter the Waste Data system, are recorded and managed as C&I waste. Any requirement would, therefore, be addressed by those facilities in place to deal with the C&I waste stream.
- 3.71 The WNA did not identify any significant gaps in provision for sewage waste (wastewater treatment). United Utilities (UU), the statutory undertaker for wastewater in Cumbria, confirms that their latest 5-year Asset Management Programme (AMP6)<sup>37</sup> identifies the need for a new wastewater treatment works (WwTW) as part of a major capital scheme to upgrade the West Cumbria water supply network. The entire scheme gained planning permission in November 2016, and the WwTW at Bridekirk will connect a new clean water transfer main from Thirlmere and a new treated water transfer main to an existing service reservoir. However, there will be associated decommissioning of a number of WwTWs and pumping stations, so the amount of wastewater needing treatment will not increase significantly. Capacity requirements will be kept under review, but currently, all requirements are fulfilled.

### **Strategic policy for waste**

- 3.72 Strategic Objectives 3 and 4 of this Local Plan, express the County Council's aim to manage Cumbria's wastes at the highest achievable level within the waste hierarchy, as near to where it is produced, without endangering either

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<sup>37</sup> Report and Financial Statements for the year ended 31 March 2014, United Utilities, June 2014

people's health or the environment. The 2015 WNA indicates that, whilst waste is exported from Cumbria, the quantities imported are not disproportionate, and, excluding the considerable imports of radioactive waste and net exports of hazardous waste, Cumbria is close to net self-sufficiency in waste management.

- 3.73 National planning policy<sup>38</sup> makes it clear that while each waste planning authority should aim to manage all its own waste, the proximity principle does not require them to deal solely with such waste. Some cross boundary movements may enable more efficient use of facilities, and prevent local over-provision, and the geography of Cumbria does mean that cross border movements may involve fewer "waste road miles" to a suitable and viable management facility, rather than transferring waste to a facility elsewhere in Cumbria. The cost of transport itself is one of the factors affecting commercial decisions about where to manage wastes; these are decisions that are not directly influenced by the planning system. Policy SP2 states that sufficient sites will be allocated to meet the objectively identified needs for additional facilities; these are set out in site allocations policy SAP2. However, the County Council will not be developing these facilities themselves. Rather, the allocations are to indicate to operators where the most suitable locations are, but it is a commercial decision on whether the allocation is taken up, even if an operator put the site forward for inclusion in the Plan.
- 3.74 Centralised facilities, taking waste from all parts of Cumbria to achieve economies of scale, are less likely to be feasible than in many waste planning authorities, due to the low population density, the dispersed urban settlement pattern and the presence of the Lake District National Park in the centre of the county. This is particularly true for hazardous waste, of which only small quantities arise in Cumbria, and for which specialised facilities are often required.
- 3.75 Strategic planning policy SP2 is, therefore, founded on the goal of providing for management of all wastes arising in Cumbria, as far as practicable in a market-led industry, whilst accepting that limited cross boundary movements of waste will occur. Proposals to import significant volumes of waste would be acceptable only if local social, environmental and economic benefits demonstrably outweigh other sustainability criteria. Note that policy SP2 does not cover radioactive wastes (see chapter 4).

#### **POLICY SP2 Provision for waste**

Provision will be made for the management of all of Cumbria's wastes within the county, with the acceptance of limited cross boundary movements (net self-sufficiency). This will be achieved by allocating sufficient sites to meet objectively identified needs for additional facilities.

Any proposals to manage significant volumes of wastes from outside the county would have to demonstrate that the local, social, environmental and economic benefits outweigh other sustainability criteria.

<sup>38</sup> PPG paragraph 007, chapter 28 Waste (ID: 28-007-20141016)

These other criteria include the impacts of the additional "waste miles" and the principles of managing waste as close as possible to its source, with each community taking responsibility for its own wastes and taking account of the nearest appropriate facility.

- 3.76 Strategic Policy SP3 builds on the principles in policy SP2, in order to provide waste infrastructure for current and future needs, as identified by the WNA. Recognising that not all sites allocated will be developed, and to ensure that a rigid cap is not imposed on development proposals<sup>39</sup>, it is proposed to identify seven additional sites for waste management facilities; these sites are allocated in policy SAP2. Although the WNA 2015 does not identify specific types of built facility required, as the assessment is based on waste managed, it does identify the potential for EfW facilities and HWRCs. In addition, it recognises that the need for facilities will be industry led; therefore, the Plan's approach to identifying sites has been to allow sufficient land to come forward that offers flexibility in both the size and facility type. This approach is considered sufficiently flexible to meet expected needs over the Plan period, as some sites may be lost to other developments or may prove to be unsuitable on further investigation. An additional site for composting is not proposed at this time as the need is unclear, and would only be required should existing sites not receive a time extension. Any such proposals would be addressed through Development Control Policies, in order to allow flexibility and responsiveness to demand. This approach has been taken to reflect the way that waste is currently managed across the county, largely due to the geographical constraints of the Lake District National Park.
- 3.77 Provision for alternative sites for HWRC's is proposed where existing sites are due for closure and replacement is required; these are allocated in policy SAP1. Broad Areas suitable for waste management are also proposed, as supported by PPG<sup>40</sup> and discussed in paragraphs 3.62 and 3.80 to 3.83 of this Local Plan; a non-exhaustive list of the Broad Areas is set out in Policy SAP2.
- 3.78 Policy SP3 does not quantify the need for additional landfill capacity, but provides strategic criteria by which proposals for additional inert or non-inert landfill capacity would be considered. It should be noted that needs for landfill capacity or site allocations will be monitored at regular intervals during the Plan period, and made public through the Authority Monitoring Report or revised Waste Needs Assessment. Policy SP3 does not cover radioactive wastes.

<sup>39</sup> PPG paragraph 038, chapter 28 Waste (ID: 28-038-20141016)

<sup>40</sup> PPG paragraph 040, chapter 28 Waste (ID: 28-040-20141016)

## **POLICY SP3 Waste capacity**

### **Waste management facilities**

In order to provide an integrated network and to meet any waste capacity gaps that are predicted to arise during the Plan period, the Plan identifies:

- 7 sites of between 2 and 4ha for additional waste recycling and treatment facilities (these could provide for commercial and industrial waste or municipal waste);
- Broad Areas where any of a number of sites may be suitable for waste management;
- alternative sites for those Household Waste Recycling Centres (HWRC) that are required to be replaced.

Proposals on unallocated sites, where opportunities arise that were not anticipated, will be considered if they conform to the other, relevant policies in this Plan.

Preference will be given to sites that contribute to an integrated network of waste facilities by accommodating several types of facility, or by being well located in relation to the sources, or to the destination of, the waste stream being managed.

The need for provision for construction and demolition, or excavation, waste arising from major infrastructure projects will be kept under review and proposals considered against relevant policies in this Plan.

### **Landfill**

Time extensions for existing landfill facilities will be considered favourably if they are necessary:

- to meet a capacity need identified in this Plan; or
- to achieve acceptable restoration contours; or
- to maintain an integrated network of a range of appropriate and necessary waste management facilities across the county.

Proposals for additional inert or non-inert landfill capacity will be considered if they are necessary to meet a capacity need identified in this Plan, or if it can be demonstrated that there is a need for the development and that it would not undermine the waste hierarchy.

- 3.79 As part of the County Council's overall waste strategy, preference will be given to sites that contribute to an integrated network of waste facilities by accommodating several types of facility, or by being well located in relation to the sources, or to the destination of, the waste stream being managed. The delivery of new waste management facilities, now that the primary LACW waste management facilities are in place, will be market-led and dependent on proposals from the private sector. These may be 'merchant' facilities, provided by waste management companies, or 'in-house' facilities, provided by commercial or industrial waste producers or waste users. Provision of the strategy to ensure an integrated network of suitable sites, in places that meet the proximity principle and other sustainability criteria, is the role of the County Council. The discussions about waste streams, facilities, management and reduction set out in this chapter, are reflected in the Waste Strategy below.



### **Box 3.1**

#### **Waste Strategy**

- encourage private sector investment in waste management facilities, which will make a significant contribution to the county's economy and aid regeneration initiatives;
- require demonstration of significant enhancement of environmental assets and local amenity, associated with waste management developments;
- encourage initiatives that will change behaviours in order to meet national and local targets for recycling, composting, recovery of value and for minimising waste sent to landfill;
- ensure that the required waste management facilities are provided in the right locations and at the right time;
- require waste to be managed near to where it is produced, as far as practicable, bearing in mind Cumbria's relatively small and dispersed pattern of population;
- require waste to be managed in environmentally sensitive ways, in accordance with the waste hierarchy and, wherever possible, with the option of rail or waterborne transport being available.

#### **Broad Areas and site locational criteria for waste management developments**

- 3.80 Proposals on sites that have not been allocated are likely, and may be appropriate for a number of reasons. Planning policy<sup>41</sup> makes it clear that unallocated sites may be used where opportunities arise that were not anticipated, potentially due to technological or land ownership changes, or for new entrants into the market. In addition, smaller scale waste management developments may be proposed in industrial areas where other waste uses already exist, where waste arises from existing industries or where waste could be used as a resource. This does not imply that waste management proposals on sites that have not been allocated in this Plan would be acceptable on all commercial or industrial estates throughout Cumbria, but some will clearly be suitable for certain types of facility.
- 3.81 Policy DC9 (Criteria for waste management facilities) lists suitable locations and key criteria for the principal types of facility, to give developers some indication of potentially acceptable proposals. There are also some employment areas containing existing waste management facilities, or where the key criteria above apply, and some synergies may be achieved by locating new provision in the same areas if sites become available. Of course, any such proposals will be judged not just on the key criteria set out in DC9, but will also have to conform to all other policies in the Plan that are relevant to that proposal, e.g. environmental, cumulative or flood risk policies. Detailed consideration will include proximity to residential areas, proximity to waste source, proximity to environmental assets, visual impact, relation to transport network, relation to groundwater protection zones, type of waste facility, co-

<sup>41</sup> PPG paragraph 046, chapter 28 Waste (ID: 28-046-20141016)

location with other waste facilities, etc. – this is not an exhaustive list, as each proposal will fall under different circumstances.

3.82 The County Council considers that the following estates have potential to support further waste provision, and can be considered as Broad Areas, where any of a number of individual sites would be suitable for waste management<sup>42</sup> if the proposals conform to the other relevant policies of this Plan. The Broad Areas below are shown on the Policies Map Part 1:

- BRO1 - Lillyhall Industrial Estate, Workington
- BRO2 - Sowerby Wood Estate, Barrow
- BRO3 - Park Road Estate, Barrow
- BRO4 - Gilwilly Industrial Estate, Penrith
- BRO5 - Kingmoor Park Rockcliffe Estate, Carlisle.

3.83 The above list of Broad Areas is not exhaustive, and opportunities for additional or improved waste provision may exist on other employment or industrial estates, if they are required. Together with the provision in SP3, site allocations in chapter 18 and the positive approach to development control described in chapter 14, it is considered that suitable sites and areas for the provision of waste management facilities have been identified in appropriate locations, as required by planning guidance<sup>43</sup>.

3.84 The implementation chapter of this Plan explains how monitoring and review will enable the County Council to ensure that provision responds to future changes in waste growth and management practice if they diverge from the ranges predicted by the 2015 Waste Needs Assessment.

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<sup>42</sup> PPG paragraph 040, chapter 28 Waste (ID: 28-040-20141016)

<sup>43</sup> PPG paragraph 011, chapter 28 Waste (ID: 28-011-20141016)

## 4. RADIOACTIVE WASTES

4.1 This chapter addresses only radioactive waste; all other waste streams are addressed in chapter 3 of this Local Plan.

### Background

4.2 Radioactive wastes are produced in the UK as a result of: the generation of electricity in nuclear power stations and from the associated production and processing of the nuclear fuel (including decommissioning of plant); from the use of radioactive materials in industry; from the extraction and processing of minerals, which may include some naturally occurring radioactive materials (NORM); from medicine; from academic research; and from military nuclear programmes (such as the nuclear-powered fleet of submarines).

4.3 Radioactive waste is divided into three categories according to how much radioactivity it contains, in terms of becquerels per gram, and the heat that this radioactivity produces. The categories identified<sup>44</sup> are: High (HLW), Intermediate (ILW) and Low Level Waste (LLW). Very Low Level Waste (VLLW) is a sub-category of LLW, and together they are often termed 'lower activity wastes'. HLW and ILW together, are often termed 'higher activity wastes'.

- **High Level Waste** – heat-generating waste with radioactivity levels exceeding the upper boundaries for Low Level Waste that has arisen primarily from the reprocessing of spent nuclear fuel. The temperature of HLW may rise significantly and as a result, this factor has to be taken into account when designing storage or disposal facilities. HLW only arises in liquid form, as a by-product during the reprocessing of spent fuel from nuclear reactors; it is still categorised as HLW in its conditioned solid form.
- **Intermediate Level Waste** - waste with radioactivity levels exceeding the upper boundaries for Low Level Waste, but which does not need heat generation to be taken into account in the design of storage or disposal facilities. ILW may be solid, such as graphite or metals, or in the form of sludges and effluents; it arises mainly from the reprocessing of spent fuel, and from general operations, maintenance and decommissioning of radioactive plant.
- **Low Level Waste** – waste having a radioactive content not exceeding 4 gigabecquerels/tonne (4,000 Bq/g) of alpha radiation or 12 GBq/te (12,000 Bq/g) of beta/gamma radiation. LLW may be solid or in the form of sludges and effluents; waste types typically include soil, rubble, building materials, such as steel framework and pipework, contaminated equipment and protective clothing from facilities where radioactive materials are handled. Small volumes of LLW are also produced by laboratories and hospitals.
  - **Very Low Level Waste** - a sub-category of LLW.

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<sup>44</sup> Evidence Base document reference ND63: Strategy for the management of solid low level radioactive waste from the non-nuclear industry in the United Kingdom, Part 1 anthropogenic radionuclides, DECC, March 2012

#### 4.4 VLLW can be further divided into:

- *Low Volume VLLW (dustbin loads)* – small volumes of waste that can be safely disposed of with municipal, commercial or industrial waste at any landfill site. Each 0.1 cubic metre of this waste contains less than 400 kilobecquerels (400,000 Bq) of total activity, or a single item contains less than 40 kBq (40,000 Bq) of total activity. There are additional limits for wastes containing carbon-14 and tritium. It is generated by ‘small users’, such as hospitals, universities and laboratories.
- *High Volume VLLW (bulk disposals)* – higher volumes of waste that can be safely disposed of with municipal, commercial or industrial waste, but only at specified landfill sites and for a specified amount. This waste has a maximum concentration of 4,000,000 Bq/tonne (4 Bq/g), and there is an additional limit for wastes containing tritium. It is mostly produced at nuclear licensed sites.

Further information about becquerels and alpha, beta and gamma radiation can be found in the Glossary.

- 4.5 The Department of Energy and Climate Change (DECC, which was extant until July 2016) and the Nuclear Decommissioning Authority (NDA) periodically publish an inventory of radioactive waste in the UK. The 2013 UK Radioactive Waste Inventory is the most recent public record of information on the sources, quantities and properties of LLW, ILW and HLW in the UK<sup>45</sup>. As of 1 April 2013, the Inventory contains details of over one thousand individual waste streams that have been reported by organisations responsible for their management.
- 4.6 The Inventory does not include liquid and gaseous wastes containing very low concentrations of radioactivity, which are routinely discharged to the environment within authorised limits. Nor does it include small quantities of solid wastes with very low concentrations of radioactivity, typically from hospitals, universities and the non-nuclear industry (collectively termed ‘small users’) that can be disposed of with domestic refuse to landfill, either directly or after incineration.
- 4.7 Also excluded is land contaminated by radioactivity and NORM wastes. The latter arise not just from the extraction and processing of minerals, but also from the oil and gas industries, where, for example, they can accumulate as scale on pipework. Waste estimates for any new nuclear power stations that may be built, are also not projected in the Inventory.
- 4.8 The total volume of radioactive waste that exists or is forecast to arise in the UK, from existing facilities, is about 4.5 million cubic metres (4.9 million tonnes)<sup>46</sup>; this volume would fill Wembley stadium about four times over. A further 1 million cubic metres of radioactive waste has already been disposed. Figure 4.1, and its associated table, shows the reported volumes of each waste type, and a breakdown of their percentages of the total volume, for existing and estimated future arisings. The volumes estimated for any future waste arisings, between 2013 and 2120, reflect current (as of 1 April 2013)

<sup>45</sup> UK RWI 2016 was published in March 2017, too late to be considered in the Local Plan

<sup>46</sup> UK RWI 2013, Waste Quantities from all Sources, section 2.1, DECC & NDA, February 2014

waste management practices; therefore, there will be opportunities, through the application of the waste hierarchy, to reduce the actual waste arisings in the future.

- 4.9 Only about 5% of the total volume of radioactive waste has already been produced, existing in either an untreated or partly treated state, whilst some wastes are conditioned directly into containers for long-term management. Of the other 95% (4.3 million cubic metres), the majority will arise when existing nuclear facilities, including reprocessing plants and nuclear reactors, are shut down and dismantled. This waste is the legacy of past and current civil and military nuclear programmes.

Total cubic metres	
VLLW	2,800,000
LLW	1,400,000
ILW	290,000
HLW	1,100
<b>Total</b>	<b>4,500,000</b>

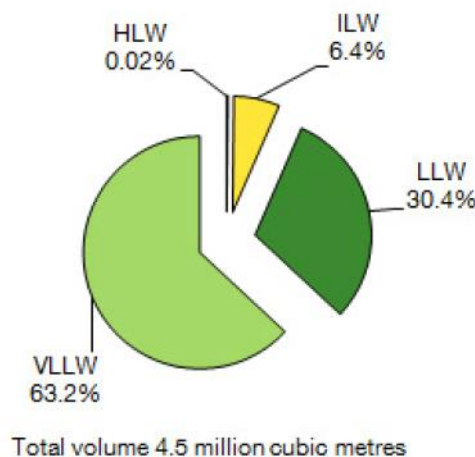


Figure 4.1: Total volume reported by waste type  
source: UK Radioactive Waste Inventory 2013, DECC & NDA, Feb 2014

- 4.10 About 94% (4.2 million cubic metres) of the radioactive waste total volume (existing and future arisings) is categorised as LLW and VLLW. Of this, around 3.9 million cubic metres will arise from the dismantling and demolition of nuclear facilities. About 6% (290,000 cubic metres) of the total volume is categorised as ILW, whilst less than 0.1% (1,100 cubic metres) is in the HLW category. Although the volume of HLW is relatively small, it contains about 95% of the radioactivity in the total volume; LLW contains less than 0.01% of the radioactivity. These percentage values will change gradually over time, as radioactivity decays. Figure 2 indicates the percentage of total waste arisings (existing and future estimated) that each activity will generate; these figures are from existing facilities only.

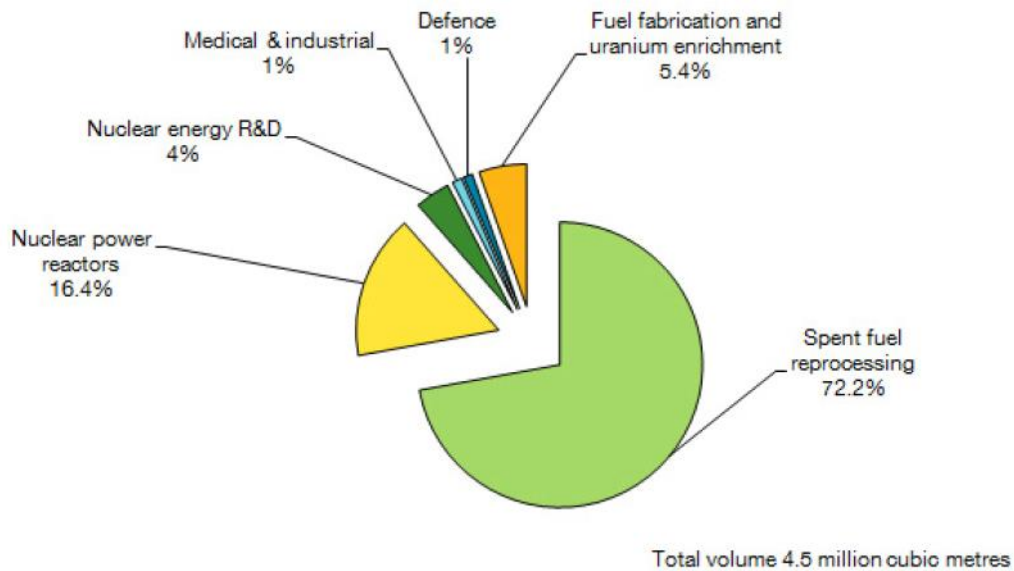


Figure 4.2: Waste volumes from each activity at existing facilities  
 source: UK Radioactive Waste Inventory 2013, DECC & NDA, Feb 2014

Note: spent fuel reprocessing includes all wastes from Sellafield, where there are large waste volumes from legacy defence programmes in addition to those from commercial fuel reprocessing.

### Radioactive waste in Cumbria

- 4.11 The county hosts a significant number of nuclear industry and non-nuclear industry sites (see Table 4.1); they variously produce, treat, manage, store and/or dispose of radioactive wastes (see Glossary). 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 in the county.
- 4.12 At present, the full range of radioactive wastes (HLW, ILW, LLW, VLLW), 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, which is not disposed of 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 for incineration. In the 2014/15 financial year, over 1,000m<sup>3</sup> of LLW and VLLW arising within Cumbria was managed in this way; for the same year, approximately 600m<sup>3</sup> of LLW was imported from outside Cumbria to the Repository for storage, pending final disposal. In addition, around 11,000 m<sup>3</sup> of LLW arising outside Cumbria, was diverted from the LLWR to suitable treatment and alternate disposal facilities.
- 4.13 In accordance with national policy<sup>47</sup>, it is expected that communities must take appropriate responsibility for managing their own wastes and must ensure that there is provision for its sustainable management, which is then discussed in

<sup>47</sup> PPG paragraph 004, chapter 28 Waste (ID: 28-004-20141016)

their Local Plans. It is not expected that all Waste Planning Authorities need to host their own radioactive waste management facilities, and certainly not for all activity levels, but, as with conventional wastes, there should be an understanding of what is arising and where it goes; there should not be a default position of exporting these wastes to existing facilities in West Cumbria.

Table 4.1: Sites and organisations associated with radioactive waste in Cumbria

Site	Description
Sellafield nuclear licensed site (including Windscale)	This is the only site in the UK that produces HLW and it is also treated and stored here. Foreign spent fuel is sent to Sellafield for reprocessing and the products are returned to its country of origin. ILW arises, is treated and stored on site. Some ILW from across the UK is also stored here. LLW and VLLW arise on site. Some of the lower activity LLW and VLLW is disposed into the onsite landfill; some is sent to the LLWR; some is managed by sending it for treatment in the UK and abroad; some is sent to landfill or for incineration outside the county.
Sellafield National Nuclear Laboratory	LLW is produced in the Laboratory during research. Depending on its activity level, it is managed by: consignment to the LLWR; sent for treatment in the UK and abroad; sent to landfill or incinerated at facilities outside the county.
Low Level Waste Repository	ILW is being generated during the decommissioning of former MOD magazines contaminated with plutonium – this will be safely retrieved and sent to Sellafield for storage. The currently operational vault (Vault 9), and subsequent vaults 9a, 10 and 11, have planning permission for the disposal of LLW until 2045. LLW generated onsite is either stored or disposed in the vault or sent for treatment, incineration or landfill outside the county.
Eskmeals test range	MoD LLW was produced from test firing and managed by consignment to the LLWR. No volume is recorded against the site in the 2013 Radioactive Waste Inventory.
Studsvik Ltd <sup>48</sup>	UK This company treats metals that are contaminated by LLW. Some LLW is managed by sending to the parent company in Sweden. Contaminated metals are also sent from the Sellafield site to other operators in Germany, which have more extensive facilities. Classed as 'out of scope', metal is then entered into the metal market. Secondary waste arising from treatment of metals at this facility, is either sent to the LLWR or outside the county to landfill and for incineration.
Lillyhall Landfill	The landfill has an Environmental Permit to dispose of VLLW and planning permission until 2029.
Furness General Hospital	The three hospitals in Cumbria use a range of radioactive isotopes, such as technetium, iodine and carbon-14, for diagnostic and therapeutic applications. The majority of the arising radioactive waste substances are liquid, with lesser amounts of solid waste and minimal gaseous waste. Solid waste is usually in the form of syringes, needles, swabs, vials and gloves. The Environment Agency regulates disposal of these wastes; liquids are mainly disposed of in wastewater, solids are sent for incineration, with the ash residues being disposed of in appropriately permitted landfill.
West Cumberland Hospital	
Cumberland Infirmary	
BAE Systems Marine Ltd	Very low volumes of LLW arise here as a result of building and commissioning reactor plant in the UK's nuclear-powered submarine fleet. Depending on its activity level, it is sent to landfill or incinerated. The 2013 Radioactive Waste Inventory records one waste package here.

<sup>48</sup> The facility was sold to EDF Group in April 2016, and renamed Cyclife UK Ltd.

Kingmoor Park Properties Ltd	LLW was produced here as a result of industrial processes. Depending on its activity level, it was managed by consignment to the LLWR, sent to landfill or incinerated. Although the site has now been remediated, the Environment Agency still record a Permit, but there is no volume recorded in the UKRWI.
International Nuclear Services Ltd	This company, a wholly owned subsidiary of the NDA, manages the transport, using its own fleet of ships, to deliver foreign spent fuel to Sellafield for reprocessing and to then return the products to the country of origin. INS use both Barrow Port and the Port of Workington.
Direct Rail Services	DRS is a wholly owned subsidiary of the Nuclear Decommissioning Authority, established in 1995 as a supplier of rail transport and associated services to the nuclear industry.

### *Volumes of radioactive waste*

- 4.14 When considering the existing, stored radioactive waste at sites in Cumbria, it is difficult to separate those arisings from within Cumbria and those from other parts of the UK, except for HLW, which only arises at Sellafield. The 2013 Radioactive Waste Inventory<sup>49</sup> identifies the volumes of existing, stored radioactive waste:

Sellafield: 1,770m<sup>3</sup> HLW (100% of UK total), in 5,626 packages  
69,600m<sup>3</sup> ILW (73% of UK total), conditioned and unconditioned<sup>50</sup>  
3,450m<sup>3</sup> LLW (5% of UK total)  
1,080m<sup>3</sup> VLLW (92% of UK total)

LLWR: 33.9m<sup>3</sup> ILW (0.04% of UK total), stored in magazines  
32,800m<sup>3</sup> LLW (49% of UK total), stored in Vaults 8 and 9

- 4.15 With regard to future waste arisings, the Inventory forecast for HLW at Sellafield actually shows that there will be a fall in volume from that recorded at 1 April 2013. This is because HLW is first stored as a liquid, which later undergoes an evaporation process before vitrification into glass blocks; these blocks are roughly one-third of the volume of the original liquid. The process is due to finish around 2030.
- 4.16 The forecast future arisings of ILW in the UK are about 190,000m<sup>3</sup>, of which 112,000m<sup>3</sup> (about 59%) is from Sellafield; this is mostly from decommissioning of facilities, but some is from operational activities. A further 491m<sup>3</sup> (about 0.3%) of ILW is forecast to arise from the LLWR, during decommissioning of the magazines. Other nuclear licensed sites in the UK either have or are preparing their own ILW stores, but it is likely that some ILW will continue to be sent to Sellafield for storage.
- 4.17 The forecast future arisings of LLW in the UK are about 1,300,000m<sup>3</sup>, of which 291,000m<sup>3</sup> (about 22%) is from Sellafield; of this amount, the split is roughly 60% from decommissioning and 40% from operations.
- 4.18 The forecast future arisings of VLLW in the UK are about 2,840,000m<sup>3</sup>, of which 2,760,000m<sup>3</sup> (about 97%) is attributable to waste from the

<sup>49</sup> United Kingdom Radioactive Waste & Materials Inventory, 1 April 2013, DECC and NDA

<sup>50</sup> The UK total number of conditioned ILW packages is 54,129, of which 47,569 (88%) are at Sellafield



decommissioning of reprocessing and associated plants, waste storage and treatment plants, and site service facilities at Sellafield. However, there is a large uncertainty in potential radioactive waste arisings from decommissioning, and current expectations are that about 70% of this material, which comprises concrete, brick and metal from building structures, may be out of scope of regulatory control because it would fall below the defined activity levels for 'radioactive waste'.

#### *Capacity to manage the volumes of radioactive waste*

- 4.19 Unlike conventional wastes (discussed in chapter 3), the County Council cannot aim for net sufficiency in the management of radioactive wastes, other than for HLW; this arises only at Sellafield, from the reprocessing of foreign and domestic spent fuel, and is repatriated or safely stored on site, awaiting a disposal route. It is planned to export high level vitrified waste to a Geological Disposal Facility circa 2089. Assuming all HLW from overseas spent fuel has been exported, a total of around 7,500 HLW containers are expected to be stored in an engineered facility on the Sellafield site; storage capacity in this Vitrified Product Store is 7,960 containers.
- 4.20 The majority of the ILW safely stored at Sellafield is generated internally, with additional, smaller volumes of wastes from Harwell and Winfrith; altogether over the Plan period, it is anticipated that these will amount to approximately 17,000m<sup>3</sup>. There may also be a few hundred cubic metres of waste generated during the decommissioning of storage vaults at LLWR, and the potential for around 1,000m<sup>3</sup> of plutonium contaminated material (PCM) generated at Aldermaston. There are a range of engineered ILW stores at Sellafield, designed specifically for the different waste types (e.g. PCM, beta gamma) and packaging (e.g. drums, concrete boxes); both the current and future planned stores have adequate capacity for ILW management until a disposal route is available. It is planned to export ILW to a Geological Disposal Facility circa 2089.
- 4.21 Sellafield currently has the capacity to manage all of its LLW arisings, which are forecast to be around 80,000m<sup>3</sup>. On site capabilities include handling, segregation and measurement; metals recycling; and a supercompaction plant. Off-site capabilities include metals recycling (both within and outside the county), incineration (outside the county) and disposal to the LLWR. The Repository has planning permission for disposal of LLW until 2045, in the current vaults (8, 9) as well as future vaults (9a, 10, 11); excluding the waste already emplaced in vaults 8 and 9, this provides an overall capacity of around 263,000m<sup>3</sup>. Imports of LLW into the county over the Plan period are estimated to be around 135,000m<sup>3</sup>; exports are estimated to be approximately 37,800m<sup>3</sup>. This figure is based on extrapolation of current volumes of wastes transferred from Sellafield to alternative routes such as incineration, metal decontamination/melting and VLLW disposal. Therefore, there is sufficient capacity at the Repository over the Plan period.
- 4.22 Sellafield Ltd anticipate generation of some 96,000m<sup>3</sup> of VLLW over the Plan period; two thirds of this volume (61,000m<sup>3</sup>) is planned to be disposed of to its on-site landfill facility, Calder Landfill Extension Segregated Area (CLESA). The remaining 35,000m<sup>3</sup> is expected to be consigned as VLLW for disposal at

an authorised landfill, which is likely to be outside of the county. The CLESA facility at Sellafield, which can only accept the site's own VLLW, has a total capacity of 120,000m<sup>3</sup> and a remaining capacity of 63,000m<sup>3</sup>. It is estimated that the CLESA will be full by 2025, but it is planned that a successor will be developed.

- 4.23 Large volumes of VLLW arise annually at nuclear sites, which are generally sent for disposal to permitted landfill, if suitable, at the earliest opportunity after they are generated. For example, in 2015/16 6,092m<sup>3</sup> VLLW from waste producers across the UK was disposed to suitably permitted landfill sites and, additionally, 3,736m<sup>3</sup> was disposed by Sellafield to the CLESA. There is one permitted commercial landfill site in the county that is able to accept VLLW – the FCC Environment site at Lillyhall. The planning permission allows disposal of VLLW at the site until 2029, with a limit of 26,000m<sup>3</sup> annually; to date, none has been disposed of to Lillyhall. It is difficult to forecast the volume of VLLW that might be imported into the county during the Plan period, since VLLW would only be imported if it was to be disposed of to the Lillyhall facility. It is considered that there is sufficient capacity to manage or dispose of VLLW in the county over the Plan period.
- 4.24 Paragraph 17.7 considers the implementation and monitoring framework for the Local Plan, and expects that one of the main documents to be used to provide evidence on the Plan's performance will be the UK Radioactive Waste Inventory, which is updated every 3 years. The annual Authority Monitoring Report will also provide an opportunity to monitor radioactive waste facilities, their capacity to manage the wastes and progress. The monitoring framework will include triggers concerning radioactive waste, which would indicate when a full or partial review of the Plan may be required.

### **Planning for radioactive waste management**

- 4.25 It is essential that all radioactive wastes and materials are safely and appropriately managed in ways that pose no unacceptable risks to people or the environment, now or in the future. How radioactive waste is dealt with depends to a large extent on how radioactive it is. Wastes are treated after they arise, to render them suitable for onward treatment, storage and/or disposal (either to reduce their volume and so minimise the requirements for storage or to condition them to be suitable for packaging), and to reduce the dose<sup>51</sup> from them. Techniques include: compaction or incineration (for solid wastes); evaporation or filtration (for liquid wastes); grouting or vitrification (for higher activity wastes).
- 4.26 There are a number of organisations who regulate radioactive waste and the sites where it arises.

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<sup>51</sup> Radiation dose is a measurement of how much energy is deposited into a material from a source of radiation; it is measured in units called Gray (Gy) for absorbed dose and Sievert (Sv) for effective dose

Office for Nuclear Regulation	ONR	<ul style="list-style-type: none"> <li>- regulate nuclear licenced sites</li> <li>- regulate adherence to licence conditions</li> <li>- regulate radioactive waste storage</li> </ul>
Environment Agency Scottish Environment Protection Agency Natural Resources Wales	EA SEPA NRW	<ul style="list-style-type: none"> <li>- regulate nuclear and non-nuclear industry sites</li> <li>- regulate adherence to site permits</li> <li>- regulate radioactive waste disposal</li> </ul>
Nuclear Decommissioning Authority	NDA	<ul style="list-style-type: none"> <li>- implement Government policy on the long term management of radioactive waste</li> <li>- implement Government policy on the decommissioning and clean-up of the UK nuclear legacy</li> <li>- ensure that wastes are safely managed</li> <li>- develop the LLW Strategy on behalf of Government</li> <li>- own assets of a number of the UK's nuclear sites</li> </ul>
Cumbria County Council	CCC	<ul style="list-style-type: none"> <li>- regulate land use</li> <li>- prepare planning policies to ensure the sustainable management of radioactive wastes</li> <li>- determine all planning applications associated with radioactive waste in Cumbria</li> </ul>

Table 4.2: Key regulatory and policy organisations

- 4.27 There are a range of national policy frameworks and documents for the management of ‘conventional’ waste (NPPF, Planning Practice Guidance, Waste Management Plan for England, etc.), but there is no national *planning* policy or guidance on radioactive waste management. Many of the principles within the national policy documents can, of course, be applied to radioactive waste; for example, sustainability, the waste hierarchy, the proximity principle, community engagement and the Duty to Co-operate.
- 4.28 During the Inquiry into the construction of new landfill void for wastes, including LLW, at the East Northamptonshire Resource Management Facility (ENRMF), the Planning Inspector concluded that there is no distinction between national planning policies and other national policies, so the latter must also apply to Waste Planning Authorities. This conclusion was endorsed by the Secretary of State. Hence an interpretation of the spatial planning implications of other national policies and strategies, relating to radioactive waste, is required to develop the policies in this Local Plan.
- 4.29 Therefore, the NDA Strategy<sup>52</sup> should be taken into account in the preparation of Local Plans when considering the full range of radioactive wastes. This document states that strategic decisions about radioactive waste management should be informed by the key principles:
- risk reduction, through flexible approaches to long-term waste management, is a priority;
  - centralised and multi-site approaches should be considered;

<sup>52</sup> Evidence Base document reference ND151: NDA Strategy III, April 2016

- waste should be minimised; and
- the waste hierarchy should be used as a framework for decision-making.

4.30 There are further national policy and strategy documents, for particular waste types, that need to be considered during Local Plan preparation. For higher activity wastes, these include the White Papers on Managing Radioactive Waste Safely<sup>53</sup> and on Implementing Geological Disposal<sup>54</sup>, as well as the framework for treatment of such wastes<sup>55</sup>. For lower activity wastes, these include the UK Government's policy statement<sup>56</sup> on LLW management, as well as the strategies for non-nuclear industry wastes<sup>57</sup> and for NORM wastes<sup>58</sup>. In February 2016, DECC published a revised UK Strategy for the Management of Solid Low Level Waste from the Nuclear Industry<sup>59</sup>, which promotes the diversion of significant volumes of LLW from the Low Level Waste Repository and the development and use of alternative treatment and disposal routes.

#### *Transparent decision making*

4.31 With regard to the radioactive waste industry, the County Council is a key stakeholder and undertakes proactive engagement in the process of life time planning at the nuclear sites in Cumbria. Through its waste planning responsibilities, the Council is also a regulator and it is important to properly understand how developments on these sites will impact on Cumbrian communities, in order to develop and support appropriate and timely waste management strategies.

4.32 There are a number of ways that the nuclear industry arrives at decisions on waste transport, treatment, management, storage, disposal, etc. In the UK, formal and robust waste management decision making and optioneering is a regulatory expectation; it is part of the requirement for demonstration of Best Available Technique (BAT) in England and Wales, and Best Practicable Environmental Options (BPEO)/Best Practicable Management (BPM) in Scotland – see Glossary for further explanation. These reviews consider a range of factors including safety and security, environmental impact, technical feasibility, community impacts and financial costs. The National Waste Programme team at LLWR Ltd has produced a series of National Strategic BATs and guides for waste practitioners involved in decision making. In addition to the above, for the NDA estate, where investment is required for the execution of a waste management option, the NDA expects the Site License Companies to undertake appropriate optioneering supported by business

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<sup>53</sup> Evidence Base document reference LD44: Managing Radioactive Waste Safely: a framework for implementing geological disposal, DEFRA, June 2008

<sup>54</sup> Evidence Base document reference ND139: Implementing Geological Disposal, DECC, 24 July 2014

<sup>55</sup> Evidence Base document reference ND180: Higher Activity Waste Treatment Framework, NDA, October 2015

<sup>56</sup> Evidence Base document reference LD42: Policy for the long term management of solid low level radioactive waste in the UK, DEFRA, March 2007

<sup>57</sup> Evidence Base document reference ND63: Strategy for the management of solid low level radioactive waste from the non-nuclear industry in the United Kingdom, Part 1 anthropogenic radionuclides, DECC, March 2012

<sup>58</sup> Evidence Base document reference ND142: Strategy for the management of Naturally Occurring Radioactive Material (NORM) waste in the United Kingdom, DECC, July 2014

<sup>59</sup> Evidence Base document reference ND150: UK Strategy for the Management of Solid Low Level Radioactive Waste from the Nuclear Industry, DECC, February 2016

cases as needed, and this would be carried out under the NDA's Value Framework process.

- 4.33 Policy SP4 has been drafted to ensure that whoever undertakes the optioneering process, for new or extended radioactive waste facilities, they demonstrate that they have considered the three principles (sustainable development, precaution and proximity) and also the waste hierarchy. In the Council's past experience, there have been instances where these criteria are not given enough weight or are decided before a project is made public by an operator, and presented as a *fait accompli*. Policy SP4 is designed to ensure that when considering planning applications for facilities concerning radioactive waste, the County Council can clearly see how these principles have been considered; it is not intended that the Council uses the policy to demand that a project be undertaken in a certain way or that one principle is of greater weight than another.
- 4.34 Proposals for the management of radioactive waste should also comply with national strategies for waste management and for radioactive waste management specifically, in the latter case including those produced by the Nuclear Decommissioning Authority. The County Council would expect to see documentary evidence of how the optioneering process was undertaken, comprehensively setting out constraints, assumptions made and all options considered (as set out in policy SP4). The data arising from any such process will be used to demonstrate the detailed requirements set out in policy SP5 (Development criteria for low level radioactive waste sites) and SP6 (Higher activity radioactive wastes treatment, management and storage).

#### **POLICY SP4 Transparent decision making**

Proposals for radioactive waste facilities will need to demonstrate how the development complies with:

- the principles of sustainable development;
- the waste hierarchy;
- the precautionary principle;
- the proximity principle; and
- the national strategy for managing radioactive wastes.

#### **Lower activity wastes**

##### *Strategy and development principles*

- 4.35 Certainly since 2010 when the first solid UK LLW management strategy was published, there has been increased use of waste treatment techniques, either to divert such waste from disposal or to decrease the volume of waste requiring disposal. Techniques include more efficient segregation, decontamination, recycling, melting, compaction and incineration. NDA Strategy III, explains that 85% of LLW arising since the previous Strategy (2011) has been diverted from the Repository, through a wide range of environmentally sustainable options such as waste prevention, re-use and recycling. However, there will always be a need for disposal.

- 4.36 The regulatory framework allows for disposal of LLW at near surface facilities. LLW covers a wide range of radioactivity levels, the minority of which, at the higher end, requires highly engineered containment facilities, such as the Low Level Waste Repository (LLWR) near Drigg. The majority of LLW, at the lower end, usually does not require the level of engineering and containment provided by the LLWR, and could be disposed of via alternative routes, such as disposal to specified, permitted non-inert landfill. Within Cumbria, Lillyhall landfill has an Environmental Permit to accept VLLW (it also has planning permission to operate until 2029). Outside Cumbria, the ENRMF at Kings Cliffe, Northamptonshire, can accept LLW up to a limit of 200 Bq/g and hazardous waste (planning permission to 2026); Clifton Marsh landfill in Lancashire can accept LLW up to a limit of 200 Bq/g (planning permission to 2035).
- 4.37 The UK's solid LLW sent to the LLWR in Cumbria, was historically disposed of into seven trenches, and then into an engineered vault (vault 8). The currently operational vault (vault 9) and subsequent vaults (9a, 10 and 11), gained planning permission in July 2016 for the disposal of LLW until 2045. The Environmental Safety Case and Environmental Permit (awarded November 2015) for the Repository demonstrate that, at present, this site does have the potential capacity to meet the projected future needs for LLW arisings; however, the lifetime of the LLWR has been, and could continue to be, extended by using other disposal routes for LLW.
- 4.38 This Local Plan supports the national policy direction on radioactive waste management. The LLWR should continue to fulfil a strategic role as one component of the UK's radioactive waste management capability for LLW.
- 4.39 Lillyhall landfill has planning permission to accept waste until 2029. The Environmental Permit issued by the Environment Agency, which is volume rather than time limited, allows disposal of VLLW to the site. By virtue of the fact that once Lillyhall landfill is closed there will be no viable disposal route, the provisions of the Permit will be tied to the end of that planning permission.
- 4.40 It is anticipated that the majority of the radioactive waste material sent to Lillyhall will be sourced from decommissioning and demolition works at Sellafield; it lies 25km south of Lillyhall landfill and, therefore, broadly complies with development plan policies relating to reducing waste road miles. Lillyhall's Permit allows it to accept VLLW from anywhere in the UK where BAT has been demonstrated. It is likely that VLLW from decommissioning activity at Chapelcross nuclear licensed site, which lies around 80km across the border in Scotland, will be sent to Lillyhall. It is anticipated that Lillyhall landfill will provide a medium term solution to the disposal of VLLW, but as this is a commercially run facility, there is no guarantee that the operator will wish to continue if it does not remain financially viable.
- 4.41 The Sellafield site has its own facility on site (the Calder Landfill Extension Segregated Area - CLESA) for the disposal of some lower activity LLW; there is a radioactivity limit of 37 Bq/g, of which half can be alpha activity, and there are limits on conventional and hazardous waste types that can be disposed of to CLESA, regardless of contamination. The CLESA has a remaining capacity of approximately 70,000m<sup>3</sup>, so it is expected to be full around 2025. Sellafield

Ltd is, therefore, already carrying out feasibility studies into where CLESA-2 may be located<sup>60</sup>.

- 4.42 Sellafield Ltd is also working on a Development of Sellafield Decommissioning Strategy, which will set out a critical path of what activities have to occur when and where, in order to carry out an effective and efficient decommissioning programme. The site currently has many spatial constraints, so the strategy will look at all the NDA-owned land adjacent to Sellafield, for its potential to accommodate the temporary storage of non-radioactive inert wastes arising solely from the Sellafield site, subject to any covenants or special provisions that would restrict this suggested use of the land. Non-radioactive inert wastes are generated from the construction, demolition or excavation activities on Sellafield, which fall under the legal definition of waste; they would be retained for restoration purposes on the Sellafield complex, rather than importing large volumes of inert wastes for this purpose, in the future.
- 4.43 The Local Plan identifies site CO32, land adjacent to Sellafield, in Policy SAP3 (see chapter 18). This has been allocated to take account of the likely needs identified in paragraphs 4.41 and 4.42, to provide the opportunity for use of this land, in the event that Sellafield Ltd has demonstrated, after rigorous assessment, that it is not feasible to use land within the Sellafield site (allocation CO36), in accordance with Policy SP4, or that it is not feasible to utilise an existing disposal route.

#### *Policy*

- 4.44 The County Council must provide robust but flexible policies that promote sustainable economic growth, which provides a framework for the nuclear industry to continue its work in reducing LLW arisings and diverting such wastes from the LLWR and into more sustainable management options.
- 4.45 As discussed in paragraphs 4.29 and 4.30, there are a number of national policy documents for managing the wide range of LLW waste types, chemical properties and radioactivity levels. One aspect of national policy, is for LLW to be managed and/or disposed of in a manner that satisfies the waste hierarchy and enables waste to be disposed of in one of the nearest appropriate installations. The re-use or recycling of waste must not, however, contribute to a net increase in waste, or an increase in waste with more damaging long-term and cumulative impacts. The use of the proximity principle may, of course, not be the deciding factor in, for example, centralised facilities.
- 4.46 Cumbria County Council's preferred approach, is that decommissioning wastes should be managed on the site where they arise unless a rigorous assessment demonstrates that this is not practicable. In those circumstances, a similarly rigorous assessment should be carried out for land adjacent to the nuclear site, before new and more distant sites are considered, with priority given to licenced nuclear sites. The County Council recognises that the nuclear industry operators will undertake that rigorous assessment, in the form of the optioneering process to assess the available management options for radioactive waste, which is then reviewed by the regulators. Also part of the

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<sup>60</sup> Evidence Base document reference LD214: Review of Potential Suitability for Disposal of LLW/VLLW on or Near to the Sellafield Site, Sellafield Ltd., February 2013

rigorous assessment, the Council would wish to see clear evidence of how those management decisions have been formulated, in order for the Council to safeguard, through planning decisions, the interests of Cumbria's communities and environmental assets.

- 4.47 In addition to the priorities set out above, proposals for the treatment, management, storage and/or disposal of LLW must demonstrate that the proposal satisfies national requirements (including relevant guidance, strategies and policies) and supports sustainable development (including sustainable transport movements, such as improved rail infrastructure). Development proposals should also be accompanied by a strategy that demonstrates the long-term integrity of the site; this may include considerations such as ground stability or coastal erosion.
- 4.48 Where a proposal for disposal involves co-location at a waste site with an existing planning permission, the disposal of LLW should not prejudice the existing waste use, unless it can be clearly demonstrated that the existing use is no longer required at that location. Determination of proposals for radioactive waste disposal will be made in line with Policy SP5 and other relevant Local Plan policies. It will also be necessary to consult with the relevant regulators, as any LLW site would require a valid Environmental Safety Case and permit from them, in addition to valid planning permission.

#### **POLICY SP5 Development criteria for low level radioactive waste sites**

Any proposal for new facilities for the treatment, management, storage and/or disposal of low level radioactive waste, must demonstrate that:

- it conforms to national policies and strategies for LLW;
- it conforms to the other relevant policies of this Local Plan;
- it represents the most appropriate option;
- it is in line with the principle that communities take more responsibility for their own waste, enabling the waste to be managed in the nearest appropriate installations to its point of arising, the preference being on existing nuclear licensed sites;
- it complies with the principles of sustainable waste management - in doing so, it should identify the intended catchment area;
- any significantly adverse impacts will be mitigated to an acceptable level;
- a feasible strategy is in place in relation to the long-term integrity of the site;
- it will not prejudice the existing use where the proposal involves co-location on an operational waste disposal site.

#### **Higher activity wastes**

- 4.49 The NDA has made significant progress in defining the site decommissioning and remediation task across its estate, but continues to face significant challenges in the future – notably at the Sellafield site. Risk reduction and stabilisation of the most hazardous wastes will continue to be a high priority. Sufficient funding will be needed to ensure risk reduction in a timescale



acceptable to safety and environmental regulators, as well as to host communities.

- 4.50 Higher activity wastes require storage in secure containers, with thick concrete walls to shield the high radiation. There is ongoing progress by the NDA, in developing safe and secure waste management and storage facilities across the estate, prior to their geological disposal.
- 4.51 HLW is in storage at Sellafield. It is conditioned by initially storing it in a liquid form, known as Highly Active Liquor (HAL), then it undergoes an evaporation process, before vitrification into glass blocks within stainless steel canisters.
- 4.52 ILW is also in storage at Sellafield. This ILW includes a range of materials arising from current and historic operations, which need to be retrieved, processed, managed and stored on site. Waste that is ready for storage is placed in stainless steel drums; in some cases, these are then grouted with cement. Drums are held in specially engineered drum stores for safe storage. New 'interim' storage facilities in the UK should have a design life of 100 years.
- 4.53 As outlined in paragraphs 4.14 to 4.18, the Radioactive Waste Inventory provides estimated volumes of future waste arisings at Sellafield. Given the potential for further processing and technical developments, as well as the reclassification of wastes, some caution is required in giving absolute confidence to these figures.

#### *Strategy and development principles*

- 4.54 The Managing Radioactive Waste Safely (MRWS) policy of the UK Government and devolved administrations for Wales and Northern Ireland, was published in 2008<sup>61</sup>, setting out a framework to provide a disposal facility in the UK for HLW and ILW by deep geological disposal. The concept of a Geological Disposal Facility (GDF) had been discussed for some years, but progress towards underground research and development is at an early stage. A GDF is an engineered containment facility, deep inside a suitable rock formation at a depth of 200 to 1,000 metres.
- 4.55 The West Cumbria MRWS Partnership was set up in 2011 by Allerdale Borough Council, Copeland Borough Council and Cumbria County Council, in order to consider whether or not to volunteer to host a GDF in the county. Its role was an advisory one, of fact-finding and research gathering, on the issues that would be involved in moving to the next stage of the MRWS process. On 30 January 2013 the Councils made their decisions; both Copeland and Allerdale Borough Council decided to continue to participate in the process.
- 4.56 At its Cabinet meeting that day, Cumbria County Council's resolution was that "Cabinet decide not to participate in stage 4, thereby excluding Allerdale and Copeland areas of Cumbria from further consideration in the MRWS process, and to encourage the Government to make the necessary investment to improve surface storage facilities at Sellafield (taking account of the findings of

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<sup>61</sup> Evidence Base document reference LD44: Managing Radioactive Waste Safely: a framework for implementing geological disposal, DEFRA, June 2008

the National Audit Office report HC 630 dated 7 November 2012)”. This resolution brought the MRWS process to an end, as subsequently confirmed by the Secretary of State. One of the key reasons for the Council’s resolution, was continuing concern over there being no regulatory right for a County Council, in a two tier authority area, to bring the process to an end if there were concerns in the future.

- 4.57 After the MRWS process ended in 2013, Government published a new White Paper in July 2014 – Implementing Geological Disposal<sup>62</sup>; this details a renewed approach to implementing a GDF in the UK, alongside ongoing interim storage and supporting research. To identify potential sites where a GDF could be located, Government favours a voluntarist approach, based on working with communities that are willing to participate in the siting process. Short term work includes undertaking a national geological screening exercise, in order to relate current geological knowledge to the safety case for a GDF, and engagement with experts and stakeholders to develop the detail of community representation mechanisms in the siting process. The development of a GDF in England was made a ‘Nationally Significant Infrastructure Project’ in early 2015, and a National Policy Statement is currently in draft. Following the short term work, there will be a period of 15 to 20 years when site investigation could occur, but construction of a GDF is not likely to start until after 2030.
- 4.58 It is important to keep a watching brief on the progress of the White Paper, in order to assess any implications for the county. Although the White Paper states that all councils should have a voice in decision-making, it excludes all County and District Councils in two tier authority areas from implementing a veto in relation to a GDF (section 7.9, page 43). As Waste Planning Authority, any applications associated with new or existing surface storage facilities for higher activity wastes at Sellafield, would be considered by the County Council; these types of application could arise within the Local Plan period. Furthermore, if one or more communities outside Cumbria volunteered to host a GDF, there would be implications for the movement of the wastes currently stored at Sellafield; however, this is very unlikely to occur within the Plan period.

#### *Policy*

- 4.59 Closer and better partnership working with Cumbria County Council will be essential to ensure continued public confidence in Sellafield site operations and the effective management of change that is expected at the site over the next 15 years, particularly as reprocessing operations wind down. The Council must fulfil their objective to promote sustainable economic growth, through robust but flexible Local Plan policies for higher activity radioactive wastes.
- 4.60 The policy on higher activity wastes has to be flexible enough to cater for foreign spent fuel that is sent to Sellafield for reprocessing, the products of which are then returned to its country of origin. The policy must also allow the import of some ILW that arises from outside the county, for which there are no

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<sup>62</sup> Evidence Base document reference ND139: Implementing Geological Disposal, DECC, 24 July 2014

suitable, alternative storage options. As set out in policy SP6, any development proposals should minimise impacts and should not prejudice site remediation. There also needs to be flexibility with regard to those low level wastes for which current disposal facilities are not suitable, as they will have to be managed through the routes for higher activity waste.

- 4.61 The policy also has to be flexible enough to cater for any operational waste that may arise if a new nuclear power station is built at Moorside<sup>63</sup>. The Government held a consultation in 2014/2015, which identified Sellafield as one of five UK nuclear facilities that were considered to be potential sites for interim storage of ILW from decommissioned nuclear-powered submarines. In July 2016, the MoD announced that Capenhurst Nuclear Services, at Capenhurst in Cheshire, had been selected as the MoD's preferred storage site, with AWE Aldermaston in Berkshire chosen as the fall back site; therefore, it is not anticipated that this particular waste stream will be sent to Sellafield.

#### **POLICY SP6 Higher activity radioactive wastes treatment, management and storage**

Development proposals for the treatment, management and storage of higher activity radioactive waste arising within the county will need to demonstrate:

- that it conforms to national policies and strategies for HAW; and
- compliance with national and international standards and best practice for environment, safety and security; and
- the reasons why possible alternative methods (for dealing with the waste) have been rejected; and
- that any adverse impacts have been adequately mitigated or compensated for.

Development proposals for the treatment, management and/or storage of waste that arises from outside Cumbria, will need to demonstrate that:

- alternative locations, at or closer to where these wastes arise, have only been rejected following rigorous assessment; and
- all practicable measures are taken to minimise the adverse effects of development and associated infrastructure; and
- acceptable measures are in place to secure decommissioning and site restoration.

#### **Locations for radioactive waste sites**

- 4.62 Sites for facilities for radioactive waste treatment, management, storage and/or disposal, have been specifically identified in this Local Plan – see chapter 18. Sites identified will include those existing waste management facilities that should be safeguarded throughout the Plan period (to 2030), as

<sup>63</sup> It should be noted that any operator of a nuclear power station is responsible for dealing with any waste that it produces and ensuring that the site is decommissioned and remediated in accordance with relevant legal and licensing requirements

well as land adjacent to Sellafield (allocation CO32), which is owned by the NDA and may be used for the management, storage and/or disposal of appropriate radioactive and conventional wastes.

## 5. MINERALS

### Policy context

- 5.1 Minerals are essential to support sustainable economic growth and our quality of life. It is, therefore, important that there is a sufficient supply of materials to provide the infrastructure, buildings, energy and goods that the county needs. National policy<sup>64</sup> sets out the duties of Mineral Planning Authorities in preparing a Local Plan and in planning for a steady and adequate supply of minerals. Strategic Objectives 5, 6 and 7 reflect national policy, and this chapter sets out the mineral resources available in Cumbria, the need for extraction of those resources, and the Strategic Policies proposed to achieve the objectives of the Local Plan.
- 5.2 Some minerals, such as oil, gas and coal, (hydrocarbons) are used to produce energy, whilst others do not have that capability. Non-energy minerals are currently of greater significance for the economy of Cumbria than energy minerals, but the potential pressure for unconventional hydrocarbon development, and current interest in coal development, mean that these are an important element of the Local Plan. These are considered within this chapter, in paragraphs 5.89 to 5.119. Peat can be used to produce energy, but in the UK is used to make composts and soil improvers, and is treated in this Plan as a non-energy mineral.

### Non-energy minerals

- 5.3 There are several types of mineral that are not used to produce energy:
- *aggregates* - minerals that are used primarily to support the construction industry; in Cumbria, these include both land won and marine dredged sand and gravel, and crushed rock;
  - *industrial* - minerals that are necessary to support industrial and manufacturing processes and other non-aggregate uses; in Cumbria, these include brick-making mudstones, industrial grade limestone, gypsum and peat. These are considered in paragraphs 5.62 to 5.76;
  - *building stones* – minerals used for building and roofing; in Cumbria, these include limestone, sandstone and slate, and are discussed in paragraphs 5.77 to 5.83.

### Aggregates

- 5.4 Cumbria is self-sufficient in aggregates and also supplies other markets, especially in the North West and the North East. 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.
- 5.5 There are 10 operating sand and gravel quarries within Cumbria, outside of the Lake District National Park (LDNP), 17 operating building stone quarries, of

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<sup>64</sup> NPPF paragraph 143 and 145

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 (see Appendix 3 for maps and lists of each type of quarry).

- 5.6 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. A further resource is provided by marine dredged aggregates that are landed at Barrow Port, with small amounts arising as a result of channel maintenance activities at some Cumbrian harbours.

#### *The Managed Aggregate Supply System*

- 5.7 The national Managed Aggregates Supply System (MASS) has enabled sustainable supplies of these essential construction materials to be maintained since the 1970's. Originally founded on national estimates of need for aggregates, which were apportioned to regions, the system was amended when the NPPF was introduced in 2012. MASS<sup>65</sup> is undertaken through national, sub-national and local partners working together to deliver a steady and adequate supply of aggregates:

- at the local level, mineral planning authorities prepare Local Aggregate Assessments (LAA), to assess the demand for and supply of aggregates in their area;
- at the sub-national level, mineral planning authorities belong to and are supported by Aggregate Working Parties, who produce data on aggregates covering specific geographical areas; Cumbria and the Lake District National Park are members of the North West Aggregates Working Party (NW AWP). The NW AWP publishes a regional Annual Monitoring Survey, and also sets an annual aggregate production apportionment for each sub-region in order to maintain production of an adequate proportion of the region's aggregate needs;
- at the national level, the National Aggregate Co-ordinating Group monitors the overall provision of aggregates in England.

- 5.8 As required by national policy<sup>66</sup>, Cumbria County Council prepared its third LAA<sup>67</sup> in 2015, jointly with the Lake District National Park Authority. The LAA was based on sales and reserves data for the calendar year 2014, collected from mineral operators in Cumbria. This data is confidential and can only be used in aggregated formats that do not disclose the sales and markets of individual operators. The LAA also took account of comments made by the NW AWP Secretariat and its wider membership.

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<sup>65</sup> PPG paragraph 060, chapter 27 Minerals (ID: 27-060-20140306)

<sup>66</sup> NPPF paragraph 145

<sup>67</sup> Evidence Base document references LD297 and LD298: Cumbria and LDNPA LAA - 20154 Data, Overview and Supporting Data, October 2015

- 5.9 A key tool that underpins the working of the MASS is the aggregate landbank, which is derived by dividing the total permitted reserve of an aggregate by average annual sales. NPPF paragraph 145 requires mineral planning authorities to plan for a steady and adequate supply of aggregates by maintaining landbanks based on a 10-year rolling average of annual sales, but also on “local information”<sup>68</sup>, and an assessment of all supply options (including marine dredged, secondary and recycled sources).

*Policy alternatives considered*

- 5.10 A number of alternative policy approaches with respect to aggregate provision, sub-regional apportionment, landbanks and safeguarding were considered as part of the Cumbria MWDF Core Strategy that was adopted in 2009, and these have been reconsidered in the light of the current policy context, and the updated and more robust evidence base provided by the LAA.
- 5.11 One key issue, addressed in paragraphs 5.21 to 5.26, is on what basis to calculate the aggregate landbanks: on the 10-year rolling average sales for Cumbria, as required by the NPPF; on the latest sales figures; or by using the sub-regional annual apportionments set by the NW AWP, which carries forward the apportionment in the, now revoked, NW Regional Spatial Strategy (NWRSS).
- 5.12 A subsidiary issue relates to the possibility of separate and distinct landbanks, either for types or qualities of aggregate, or for localities within Cumbria, and is considered in paragraphs 5.25 to 5.26 and 5.48 to 5.56.
- 5.13 The Plan has also had to consider whether to provide strategic locational policy guidance for certain minerals that are important for particular industries or purposes. Discussion of these choices, and the preferred options, are included in this chapter where appropriate.
- 5.14 The production of a Local Plan, which incorporates Development Control and Site Allocations policies into a single document, offered alternative approaches to clarify and simplify the overall suite of policies. This chapter of the Plan considers provision for minerals extraction, and safeguarding and consultation areas, plus the need for a strategic locational policy for specific minerals, whilst site allocations conforming to those strategic policies are addressed in chapter 18.

*Aggregate reserves, landbanks and requirements*

- 5.15 The following section draws on the 2015 LAA, updated with further information available as at December 2016, under the following headings:
- Current permitted reserves of aggregate in Cumbria;
  - Alternative (secondary and recycled) and marine dredged aggregates;
  - Potential re-assessment of reserves;
  - Expiry dates of planning permissions for existing quarries;
  - Potential additional areas of working;

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<sup>68</sup> PPG paragraph 064, chapter 27 Minerals (ID: 27-064-20140306)

- Aggregate requirements for potential major development projects;
- Local supply patterns and availability issues.

*Current permitted reserves of aggregate in Cumbria*

5.16 Table 5.1 shows annual aggregate sales from Cumbria from 2001 to 2014, together with the averages for the last 10 years and the last 3 years. It is clear that sales of all aggregates have fallen since 2001, with reasonable consistency, and with an additional dip around 2009 that reflects the influence of the recession. The Mineral Products Association (MPA) state in their sales figures<sup>69</sup> that the sector is continuing to contribute to economic recovery, with all construction materials experiencing market growth in the first quarter of 2015. In comparison to the final quarter of 2014, all sales were up - sand and gravel by 3.6%, crushed rock by 2.2%, ready-mixed concrete by 1.3% and asphalt by 1.2%. However, even with these growth trends, MPA says that markets would not regain pre-recession levels until after 2020; asphalt was down 15%, aggregates down 25% and concrete down 30% on their peak sales levels. This is in line with evidence provided by the Competition Commission, who state that the demand for aggregates, cement and ready mix concrete declined by about a third over the period of the UK recession (2007 to 2009), and, although there was upturn during 2013, demand has still not recovered to its pre-recession levels<sup>70</sup>.

Survey year	Limestone	Sandstone and igneous (excluding HSA)	High spec roadstone (HSA)	All crushed rock	Sand and gravel	Marine dredged	Secondary and recycled aggregates
2001	3.0	1.1		4.1	0.7	0.03	-
2002	2.9	1.1		4.0	0.9	0.04	-
2003	2.6	1.1		3.7	1.0	0.04	-
2004	2.8	1.1		3.9	0.8	0.02	-
start of the period for 10-year averages							
2005	2.6	0.36	0.74	3.7	0.7	0.02	-
2006	2.7	0.27	0.69	3.66	0.79	0.02	-
2007	2.8	0.53	0.70	4.03	0.87	0.01	-
2008	2.7	0.40	0.75	3.85	0.77	0.02	-
2009	1.91	0.38	0.78	3.07	0.52	0.02	-
2010	2.46	0.41	0.59	3.46	0.53	0.02	-
2011	1.84	0.37	0.60	2.81	0.46	0.012	0.294
2012	2.03	0.37	0.55	2.95	0.46	0.01	0.212
2013	1.62	0.37	0.41	2.4	0.48	0.012	0.202
2014	1.90	0.30	0.38	2.58	0.68	0.022	0.306
3-year average	1.85	0.35	0.45	2.64	0.54	0.015	0.24
10-year average	2.265	0.38	0.62	3.26	0.63	0.016	-

Table 5.1: Aggregate sales from Cumbria (million tonnes)  
source: Cumbria and LDNPA LAA - 2014 Data - Supporting information

<sup>69</sup> Mineral Products Today magazine issue 11, Mineral Products Association, summer 2015

<sup>70</sup> Evidence Base document reference ND127: Aggregates, cement and ready mix concrete market investigation: Final Report, Competition Commission, 14 January 2014



- 5.17 Cumbria's annual apportionment for sand and gravel was set by the NW AWP at 880,000tpa, and for crushed rock at 4.02 million tpa (Mtpa). These are significantly higher than the 10-year rolling averages for 2005 to 2014, shown in Table 5.1 (630,000tpa for sand and gravel; 3.26Mtpa for crushed rock), and were also only met for two year's sand and gravel and one year's crushed rock sales figures from 2001 to 2004. The apportionment system has not really worked for the sub-region of Cumbria, probably because the majority of sales have been within Cumbria itself, with exports primarily within the North West region or the neighbouring North East. The exception to this are the High/Very High Specification Aggregates (HSA/VHSA), which have a national market.
- 5.18 Table 5.2 below, shows the aggregate reserves at the end of 2014 and the landbanks corresponding to different sales estimates. National policy requires landbanks of at least 10 years for crushed rock and at least 7 years for sand and gravel (calculated on 10-year rolling averages and other relevant local data) to be maintained throughout the Plan period. Therefore, at the end of the Plan period in 2030, the landbank must still 'last' until 2040 for crushed rock, and, for sand and gravel, 2037.

	Limestone	All sandstone & igneous	All crushed rock	Land won sand and gravel
<b>Reserves at end 2014 (million tonnes)</b>	<b>96.26</b>	<b>40.80</b>	<b>137.06</b>	<b>9.20</b>
<b>10-year average sales to 2014 (thousand tonnes)</b>	2.26	1.00	3.26	0.63
landbank (in years)	42.59	40.80	42.04	14.60
landbank end	mid 2057	mid 2055	early 2056	late 2029
<b>NW AWP apportionment (thousand tonnes)</b>			4.02	0.88
landbank (in years)			34.10	10.45
landbank end			early 2048	late 2024
<b>3-year average sales to 2014 (thousand tonnes)</b>	1.85	0.80	2.65	0.54
landbank (in years)	52.03	51.00	51.72	17.04
landbank end	early 2067	end 2066	late 2066	early 2032

Table 5.2: Aggregate landbanks in Cumbria at the end of 2014  
source: Cumbria and LDNPA LAA - 2014 Data - Supporting information

- 5.19 The Cumbria Local Aggregates Assessment (LAA) provides an annual assessment of the demand for, and supply of, aggregates. Chapter 3 of the 2015 LAA discusses options for forecasting future demand; the options presented were based on different ways of looking at past sales and forecasting future demands based on those past sales. Tables 5.3 to 5.5 provide a summary of the requirements based on the options considered. However, it should be noted that the LAA will be updated annually and these figures are likely to change in the future, in accordance with market demand

and permitted reserves. Any planning application should be based on the most up-to-date LAA and not the figures presented here.

Scenario	Sales Levels (Million tonnes - Mt)	Landbank (years)	Landbank end date	Tonnage required to maintain at least a 7-year landbank (Mt)
1: 10 year rolling average	0.63	14.60	2029	5.3
2: stabilise at 2014 sales	0.70	13.53	2028	6.4
3: rise in pre-recession average sales	0.80	11.50	2026	9.2

Table 5.3: Requirements for Sand and Gravel  
source: Cumbria Local Aggregates Assessment, 2015

Scenario	Sales Levels (Mt)	Landbank (years)	Landbank end date	Tonnage required to maintain at least a 10-year landbank (Mt)
1: 10 year rolling average	2.26	42.59	2057	0
2: stabilise at 2014 sales	1.90	50.66	2065	0
3: rise in pre-recession average sales	2.75	35.00	2050	0
4: rise to highest pre-recession sales	3.00	32.09	2047	0

Table 5.4: Requirements for Limestone  
source: Cumbria Local Aggregates Assessment, 2015

Scenario	Sales Levels (Mt)	Landbank (years)	Landbank end date	Tonnage required to maintain at least a 10-year landbank (Mt)
1: 10 year rolling average	0.62	17.71	2032	<1.0
2: stabilise at 2014 sales	0.38	28.90	2043	0
3: rise in pre-recession average sales	0.73	15.04	2030	1.0
4: rise to highest pre-recession sales	0.80	13.73	2028	3.0

Table 5.5: Requirements for High/Very High Specification Aggregates  
source: Cumbria Local Aggregates Assessment, 2015

- 5.20 The need for aggregates will not disappear. The County Council cannot enter into any pre-determination of what may happen if planning applications are submitted for extensions of time at those quarries that still have reserves left once they reach the end date of their permission (the majority of hard rock quarries until 2042, with those for sand and gravel often much shorter). However, the calculations for landbanks are based on the assumption that sustainable development is better achieved by extraction continuing at an existing quarry, than for a new quarry on greenfield land.
- 5.21 Permitted reserves of **limestone** at the end of 2014 were, on the basis of the information in Tables 5.1 and 5.2, more than adequate. The reserve is predicted to be exhausted in 2057, with a 27-year landbank remaining at the end of the Local Plan period in 2030. On the basis of recent trends, i.e. the 3-year rolling average sales, the landbank would be exhausted much later, in 2068; however, it is assumed that sales will pick up and the landbank is very unlikely to last that long. Permitted reserves of all **sandstone and igneous rock** at the end of 2014 were also more than adequate, with a 25-year landbank remaining at the end of the Local Plan period in 2030, on the basis of 10-year average sales figures.
- 5.22 The NW AWP sub-regional apportionment figure refers to **all crushed rock**, not just limestone, and the crushed rock landbank of 34.10 years, calculated on the AWP apportionment, would end in 2048 as opposed to 2056 under the 10-year rolling average sales. Either would be adequate, and, if trends continue as in the 3-year rolling average, overall crushed rock reserves could last until 2066. Significant re-assessment of reserves, as discussed in paragraphs 5.32 to 5.34, could reduce these figures and will be kept under review.
- 5.23 The end date for the **sand and gravel** landbank based on 10-year rolling average sales and reserves at the end of 2014 was late 2029, whereas the landbank calculated on the basis of the NW AWP apportionment would end in 2024. The 3-year rolling average sales (2012-2014) figure is showing a rising trend in sales, following 5 years of low sales; therefore, further provision in the Local Plan for sand and gravel extraction will be required.
- 5.24 The 4-yearly survey<sup>71</sup> collated by British Geological Survey, shows that Cumbria does help to meet the mineral needs of other parts of the region. However, much of the NW region's shortfall is met from other regions; for example, quarries in Derbyshire and north Wales supply Greater Manchester due to their proximity, whilst half of Cumbrian quarries serve other regions, especially the North East, and just under one third of Cumbrian quarries also supply national markets, including Wales and Scotland. However, after careful consideration in the 2015 LAA, rather than base the future provision of aggregates on the sub-regional apportionments, which excluded any consideration of the contribution of secondary and recycled aggregates, it has been decided to base provision for crushed rock on the 10-year rolling average sales and provision for sand and gravel on the 2014 sales level. This will be kept under review through the LAA process.

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<sup>71</sup> Evidence Base document reference ED39: Results of Aggregate Mineral Survey England and Wales 2014, British Geological Survey, March 2016

5.25 The County Council also decided during the previous MWDF process to develop a separate landbank for **high and very high specification aggregates (HSA and VHSA)**, which are used in highway construction as high skid resistance roadstones. This is consistent with NPPF paragraph 145, as these comprise a specific type or quality of aggregate that has a distinct and separate market of regional and national significance.

	HSA/VHSA	other Sandstone and Igneous
Reserves at end 2014 (million tonnes)	10.98	29.82
10-year average sales to end 2014	0.62	0.38
landbank	17.71	78.48
landbank end	mid-2032	mid-2093
3-year average sales to end 2014	0.45	0.35
landbank	24.4	85.2
landbank end	end 2038	end 2099

Table 5.6: Landbanks for High/Very High Specification Aggregates in Cumbria, at the end of 2014

source: Cumbria and LDNPA LAA - 2014 Data - Supporting information

5.26 The separate landbank, as calculated at the end of 2014, had, based on 10-year rolling average sales, an end date of 2032, which fell short of the target end date of 2040, and gives a more demanding target than the NW AWP general crushed rock apportionment. A policy approach for security of HSA supplies is therefore required, even though the HSA landbank based on 3-year rolling average sales would probably last until the end of 2038. The landbank for other sandstone and igneous rock is also shown in Table 5.6, and is more than adequate, ending in the 2090s on both 3-year and 10-year averages, assuming time extensions were granted after 2042.

*Alternative (secondary and recycled) and marine dredged aggregates*

5.27 The development of secondary and recycled aggregate facilities as an alternative to land won aggregates has been encouraged by national and local policy for some years. Table 5.1 appears to show that the sales of these aggregates in Cumbria has fluctuated between 2011 and 2014. However, it has proved difficult to obtain information, in which there can be confidence, about the amounts of alternative aggregates that are produced, and the figures in Table 5.1 are definitely under-estimates. Data on tonnages produced each year is, at present, sketchy, dependent upon figures held in the Environment Agency’s Waste Data Interrogator and Environmental Permits or gleaned from the monitoring of planning permissions.

5.28 The production and use of alternative aggregates, as a sustainable option to augment primary aggregates, will become an increasingly important element in the growth of Cumbria – whether for more housing or for wider economic development. There cannot be a reserve or a landbank for such material as it arises mainly from construction and demolition wastes, however, the ongoing policy drivers discouraging disposal of such waste in landfills are highly likely to enable these supplies to continue.

- 5.29 The adopted MWDF Core Strategy included a policy seeking to identify sufficient sites to enable 25% of aggregates used in Cumbria to be provided from secondary or recycled sources. That policy is not in the Local Plan, as it was considered too inflexible. Firstly, in relation to alternative aggregate production at existing quarries or landfills, although the location is appropriate whilst the quarry is operating, it is much less likely to be appropriate once the quarry or landfill is closed and restored. Secondly, the establishment of businesses that produce alternative aggregates is market-led and they will often use mobile plant, allowing them to move to where the feedstock arises.
- 5.30 The 2015 Cumbria Waste Needs Assessment confirmed that sufficient aggregate recycling facilities are in place at the present time, and a positive development control approach to further proposals should be maintained. Policy DC9 (Criteria for waste management facilities) proposes that suitable industrial estates are appropriate locations for such facilities, plus aggregate quarries and non-inert landfills if the facility permission is tied to the active life of the site.
- 5.31 Marine dredged aggregates sales from Cumbria landings have fallen since 2001, with landings at Barrow in 2014 being only one third of those in 2013. NW marine dredged sand landings are only 39% of the totals permitted by the Crown Estate, which holds the commercial rights, and there would be scope for increase. The Marine Management Organisation (MMO) is the environmental regulator, and planning policy relates only to on-shore facilities to enable or facilitate off shore dredging. There is no general environmental or other advantage in substituting marine aggregates for land won resources, but such sources could be beneficial in areas where there are local shortages of supply. Policy SP10 states that planning permission will be granted for proposals if there are no unacceptable impacts and if they are in appropriate locations; where developments are on the coastal/beach margin, this would include consideration of the potential effect on coastal erosion.

*Potential re-assessment of reserves*

- 5.32 Issues at two crushed rock quarries have the potential to have an adverse impact on the size of the county's permitted reserves. Firstly, there is a substantial amount of water in **Rowrah** Quarry, which is co-located with Eskett Quarry, and, if an environmentally acceptable solution for its dewatering is not found, the reserves could be lost. Secondly, **Kendal Fell** Quarry is the subject of a master-planning exercise that could potentially sterilise its permitted reserves. The quarry has not been worked for around 20 years and the current owners are seeking an economically viable use that may not include prior extraction, although this is under discussion.
- 5.33 There is also the potential for an issue to arise at **Roosecote** sand and gravel quarry. Although the site has planning permission to 2029, the owner of the land and the mineral rights has only granted a 10-year licence to continue quarrying at the site, in case the land is required for their own operational purposes with regard to the adjacent gas terminals. If that were to happen, the reserves would be lost. Furthermore, consolidation of gas processing at the terminal closest to the quarry is likely to increase health and safety risks, which could also impact on the feasibility of future extraction at the quarry.

- 5.34 Re-assessment of reserves can sometimes be notified through the annual minerals survey, or be discussed with planning officers at monitoring visits or pre-application discussions. Revised working plans submitted with planning applications for time extensions may also involve reductions in the working areas and recoverable reserves. This was the case with the 2011 **Low Plains** application, which proposed a reduction in working area and in total reserves.

*Expiry dates for planning permissions at existing quarries*

- 5.35 The permitted reserves figures and resultant landbanks include reserves at quarries whose current planning permissions expire before the reserves are exhausted. Reserves remaining after the expiry date, if no planning permission was applied for, or if a planning permission was refused (and this decision upheld at any subsequent appeal<sup>72</sup>), would be removed from the overall reserve.
- 5.36 The LAA listed the quarries that were due to expire within the Plan period, but was compiled using data from the end of 2014. The original LAA tables are included in this Plan as Appendix 3, but the following paragraphs and tables update the information to include subsequent amendments.
- 5.37 The 2015 LAA noted that the planning permissions of five **crushed rock quarries** were due to expire before 2030. Moota Quarry was granted a time extension in 2015, although this was only to 2024; the permission also approved additional reserves, which will be included in the 2016 LAA calculations. The operator of Holme Park Quarry has submitted an application for a time extension to 2043, having secured a delay in the Review of Mineral Permission (ROMP). Sandside Quarry lies within the Arnside and Silverdale AONB, in a very constrained site; it is very unlikely that the operator will seek a physical extension, but a time extension to 2029 is under pre-application discussion. Shap Fell Quarry submitted a planning application in 2008; a number of long term studies were required by regulators, and further information was submitted in 2014. Determination of the application has still not been possible at this very sensitive site. One more crushed rock quarry, Tendley, expires in 2029.

Quarry	Expiry date	Notes
Moota	31.12.2024	
Shap Fell (aka Hardendale)	31.12.2018	application for time extension and to deepen quarry (with 5.2 Mt additional reserve) submitted in 2008 with additional information in 2014
Sandside	30.06.2020	submission of time extension to 2029 under discussion
Holme Park	31.12.2023	ROMP delayed to 2020; planning application for time extension to 2043 submitted
Tendley	31.12.2029	

Table 5.7: Crushed rock quarry permissions expiring within the Plan period  
source: Table 9 Cumbria and LDNPA LAA - 2014 Data - Supporting information

<sup>72</sup> <http://www.planningportal.gov.uk/planning/appeals/>

5.38 Table 5.8 shows all the **sand and gravel quarries** and the expiry of their current permissions in date order. All but two expire before the end of the Plan period. Sand and gravel quarries tend to have shorter temporary consents, but with the generally reduced sales since 2003, reserves have lasted longer and planning applications for time extensions are expected on many sites.

5.39 **Low Plains, Bonnie Mount and Peel Place** all received planning permissions during 2015. Low Plains decreased their extraction area, Bonnie Mount increased theirs and Peel Place was purely a time extension.

Quarry	Expiry date	Quarry	Expiry date
Low Gelt	31.12.2019	Peel Place	26.04.2025
Brocklewath	31.08.2021	Cardewmires	1.12.2025
High House	31.12.2021	Overby No.2	31.12.2026
Faugh No.2	31.12.2022	Roosecote	28.05.2029
Kirkhouse	28.07.2023	Low Plains	30.09.2033
Faugh No.1	30.06.2024	Bonnie Mount	31.12.2035

Table 5.8: Sand and gravel quarries, with expiry dates  
source: Table 10 Cumbria and LDNPA LAA - 2014 Data - Supporting information

5.40 **Low Gelt** has been operating slower than expected, and it is quite likely that an application for a time extension will be submitted in due course. **High House** has requested a scoping opinion for a physical extension. No proposals have yet been discussed for time extensions at the other seven sand and gravel quarries in the Plan area that expire between 2020 and 2029; however, five additional areas for current site extensions for sand and gravel extraction have been identified by operators, which are discussed in the site allocations chapter of this Plan.

5.41 Of the **building stone** quarries that also provide some aggregate, the five whose permission will expire before 2030 are shown in Table 5.9. As with all building stone quarries, these quarries tend to operate on a campaign basis or in response to local building need. The LAA process enables progress to be monitored, and flexible approaches through development control are considered to be more appropriate than allocating new areas for development.

Quarry	Expiry date	Quarry	Expiry date
Snowhill No.1	31.05.2017 <sup>73</sup>	West Brownrigg	31.07.2021
Rooks <sup>74</sup>	31.10.2017	Flinty Fell	13.12.2024
Snowhill No.2	31.05.2020	Scratchmill Scar	30.01.2031

Table 5.9: Building stone quarries that provide aggregate, with expiry dates  
source: Table 13 Cumbria and LDNPA LAA - 2014 Data - Supporting information

5.42 The paragraphs above show that there has been steady progress in the granting of time extensions and additional reserves at both crushed rock and sand and gravel quarries in Cumbria. It is considered important that the development control policies in this Plan continue to provide a positive and balanced policy context for the continued provision of aggregates.

<sup>73</sup> time extension until 2022 granted mid-2017

<sup>74</sup> from 1 August 2016, falls within new Yorkshire Dales National Park extension

### *Potential additional areas for aggregate working*

- 5.43 Some of the quarries referred to above are expected to utilise all their remaining reserves before the end of the Plan period, and quarry operators have, in response to several “calls for sites”, submitted proposals for additional areas of working to the County Council. Chapter 18 sets out the Preferred Areas and Areas of Search for aggregates.

### *Future need for aggregates from Cumbria*

- 5.44 In the short term, there are a number of major projects likely to need aggregate supplies from Cumbria. Dong Energy offshore wind farm<sup>75</sup> is a major renewables project at Walney, Barrow, due to commence construction in 2017. The development could require up to 5.5 Mt of crushed rock<sup>76</sup> over the period 2017-2018. Rock may be sourced from outside Cumbria, but if from within the county, the total is significant given that total sales of crushed rock from Cumbria in 2014 were only 2.58 Mt (see Table 5.2). The large landbanks for crushed rock would suggest that sales could be increased if such rock was suitable to meet the technical and environmental requirements of this project.
- 5.45 Five further infrastructure projects identified by central Government for the 2014-15 financial year<sup>77</sup> are located in Cumbria: four concern road pinch points and one is for flood defence. If the proposed new nuclear power station at Moorside, on the west coast of Cumbria, and National Grid’s North West Coast Connections 400kV power line go ahead, they were originally projected to begin construction before 2020<sup>78</sup>. Although aggregate requirements have not yet been quantified for these two projects, there could be a significant ongoing need for sand and gravel in west and south west Cumbria. As discussed in paragraph 3.71, United Utilities’ water supply network project in West Cumbria is scheduled for completion within the Plan period, and there may be a consequent need for locally sourced aggregates. Subject to planning permission, capping at the Low Level Waste Repository would commence during the Plan period, which will also require aggregates.
- 5.46 The Local Enterprise Partnership (LEP) will also be giving support to the six District Councils to deliver up to 30,000 new homes through their Local Plans, and it has published a strategic economic plan<sup>79</sup> that will focus interventions on infrastructure. It is considered that any increased demand for aggregates from house building or major infrastructure projects, will have a sufficient lead-in time for any necessary allocations to be identified.
- 5.47 The implications of planning policies outside the Plan area have also been considered. For example, the need to supply HSA and VHSA from Cumbria

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<sup>75</sup> Major new renewables projects, DECC, April 2014, <https://www.gov.uk/government/news/government-unveils-eight-major-new-renewables-projects-supporting-8500-green-jobs>

<sup>76</sup> Walney Extension Offshore Wind Farm – Environmental Statement, June 2013

<sup>77</sup> Evidence Base document reference ND109: Projected infrastructure starts and completions in 2014-15, HM Treasury, April 2014, <https://www.gov.uk/government/news/pm-and-chancellor-welcome-36-billion-infrastructure-projects>

<sup>78</sup> in May 2017, NuGen announced that it was "undertaking a strategic review of its options following shareholder and vendor challenges", <http://www.nugeneration.com/news-16052017.html>

<sup>79</sup> Evidence Base document reference LD230: The Four Pronged Attack: Cumbria Strategic Economic Plan 2014-2024’, Cumbria LEP, March 2014



may increase if the supply of non-energy minerals from within National Parks were to be restricted in the future, as implied by NPPF paragraph 144, or if policies for European Wildlife sites led to closures of existing quarries in or adjacent to such sites. The greatest impact on Cumbria would be the loss of provision of high specification roadstones sourced in the Yorkshire Dales National Park. Including the resources at both Cumbrian HSA quarries as strategic areas for further supplies of these minerals, would enable the effective use of Cumbria's increasingly important skid resistant roadstone resources (see policy SP9).

#### *Local supply patterns and availability issues*

- 5.48 In considering allocations for further mineral extraction, it would be very useful to know whether a main market area is heavily dependent on one or more quarries, and whose permitted reserves are likely to be exhausted within, or near the end of, the Plan period. This would be a significant indication that an additional, appropriately located, area for mineral working is needed, even if an adequate landbank is predicted for the Plan area as a whole. Similar considerations would also apply in considering planning applications<sup>80</sup>.
- 5.49 As the maps in Appendix 3 show, the geology of Cumbria means that locations of quarries are not dispersed uniformly around the county. Hard rock quarries are concentrated in the central belt of the county, although there are a few hard rock quarries in the north and south. In contrast, most of Cumbria's sand and gravel quarries are north of the Lake District National Park, both to west and east, and there are only two sand and gravel quarries in the area covered by Barrow Borough, South Lakeland District and Copeland Borough Councils.
- 5.50 In order to address this issue, the concept of "supply areas" within the county was used in the 1996-2006 Minerals and Waste Local Plan, and referred to in the adopted MWDF Core Strategy. The 2015 LAA, however, has not been able to establish a quantitative or robust evidence base on which to establish the boundaries of such local supply/production areas, the size of the permitted reserves within them or the main markets they might serve. The overall sales data provided by operators for the annual aggregates survey for the LAA is on a confidential basis, and analysis can only be conducted for areas containing at least three operators producing similar mineral products. This gives rise to large areas unrelated to main market areas or the transport network.
- 5.51 As noted in paragraph 5.25, a separate landbank has been established for HSA and VHSA, but no other distinct or separate grades or types of aggregate have been able to be identified for which data could be collected to develop separate landbanks. This is particularly relevant for sand and gravel, which does vary in quality and grain/stone size from quarry to quarry, meaning that certain quarries specialise the type of material they market. Although such disaggregation is not required nationally in the annual aggregates survey, questions on this subject have been added to the Cumbria annual survey, but operator responses are generally qualitative rather than quantitative. Even though sand and gravel is available generally in the landbank, this may mask shortages of particular types of material that can justifiably be permitted to improve availability, should a planning application be submitted.

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<sup>80</sup> PPG paragraph 084, chapter 27 Minerals (ID: 27-084-20140306)

- 5.52 Qualitative information collected in the 2015 survey does indicate that although the smaller Cumbrian operators often have a local niche market, national, conglomerate or international companies usually operate across a wider area, often sending their minerals to their own processing/production plants around the UK. In addition, a number of Cumbrian quarries are currently, or have recently been, mothballed in order to concentrate operations on a single quarry in Cumbria. This could be in response to the recession, when the demand for aggregates fell dramatically, or may indicate that the distances between quarries and areas of market demand within Cumbria is not a general problem. Annual monitoring in the LAA will keep this under review.
- 5.53 An alternative approach to locational factors, considers the urban or industrial areas likely to require aggregates for development, and the quarries that are most appropriately linked to them by the strategic highway network, taking into account the natural barriers within the county such as mountains, lakes and river estuaries. Such consideration, in conjunction with the spatial distribution of quarries, highlights the south west of the county, which is dependent on coastal roads (and railways) skirting the Lake District National Park.
- 5.54 Barrow and Copeland districts both contain market areas requiring aggregates for ongoing development and potential major infrastructure projects, and planning permissions for both of the sand and gravel quarries in the south west of the county expire towards the end of the Plan period. The planning permission for Roosecote Quarry in Barrow expires in 2029, and that for Peel Place (in the Gosforth/Holmrook area) in 2025; additional areas for working in the future have been proposed by operators of both quarries. This is considered to be both a strategic and a site allocations issue; therefore, the sand and gravel resources around both Roosecote Quarry and Peel Place Quarry are identified in policy SP9 as strategic areas for further supplies of this mineral.
- 5.55 No strategic location issues have been identified for the provision of limestone aggregate in this area, as the two crushed rock quarries in the south west of the county have planning permission to 2042, and there are also other crushed rock quarries in South Lakeland and Copeland districts.
- 5.56 The other main concentrations of population in the county, where growth and development is most likely, and which can be considered “main market areas”, have a range of both limestone and sand and gravel quarries, either inside the county or in adjacent areas, which are reasonably well networked by good highway connections. Additional areas for mineral extraction have been proposed by operators that would appear to meet future needs in these locations and the LAA process will keep both landbanks and locational issues under review.

#### *Summary of aggregate supply proposals*

- 5.57 Good progress has been made in 2015 to ensure that sand and gravel reserves are both maintained (through time extensions) and increased, and this will be monitored through the LAA process. It is clear, however, that further planning permissions for sand and gravel extraction, both time extensions and new reserves, are required to ensure that at least a 7-year

landbank remains in place throughout the Plan period. Discussion in the 2015 LAA considers that the most practical approach is to base provision of sand and gravel on the 2014 sales level, rather than the 10-year sales average or the NW AWP apportionment. This decision will be kept under review in subsequent LAAs.

- 5.58 In addition, the provision of additional sand and gravel reserves in the south west of the county needs to be addressed as a strategic locational issue. If quantitative non-confidential data at an appropriate scale is provided by a sufficient number of mineral operators, the potential for local supply areas or further disaggregation of sand and gravel aggregates could be reconsidered. This should, however, only be incorporated into planning policy where it is supported by clear definitions and a robust evidence base.
- 5.59 Crushed rock reserves are very healthy; however, the need for additional planning permissions may arise if significant re-assessment of reserves occurs, and/or major new onshore or offshore infrastructure developments requiring such aggregate are brought forward. A policy option to seek to actively reduce the crushed rock landbank was rejected as part of MWDF considerations, and as there is no maximum landbank level, this is not a reasonable alternative to consider. Discussion in the 2015 LAA considers that the most practical approach is to base provision of crushed rock on the 10-year rolling average sales level. This decision will be kept under review in subsequent LAAs.
- 5.60 A need for further reserves of high and very high skid resistance roadstones was identified at the end of 2013, and the 2015 LAA reassessed the situation in the light of planning permissions granted and site allocation proposals. The 2015 LAA considers that the most practical approach is to base provision of HSA/VHSA on the 10-year rolling average sales level. This decision will be kept under review in subsequent LAAs. The sources of these important reserves also need to be supported as strategic locations.
- 5.61 It is proposed that strategic policy should commit to identifying sufficient sites to meet the above needs and those for other minerals as discussed in paragraphs 5.84 to 5.88, and also to safeguard mineral resources and the railheads and wharves that either do, or potentially could, be used for sustainable transport. The County Council also recognises the contribution made by secondary and recycled aggregates, as an alternative to primary aggregates, and will monitor the role played by secondary and recycled aggregates through annual monitoring.

## **Industrial Minerals**

### *Gypsum*

- 5.62 The only **gypsum** deposits that are 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 picks up. Once that mine is exhausted, the remaining resources in that area would have to be worked by surface mining.

- 5.63 The reserves at Birkshead mine can be split into three separate types, each with a separate product and use (see Table 5.10). The reserves of the mill rock and plaster grade gypsum have been estimated based on the results of exploratory boreholes and anticipated recovery factors (the pillar sizes and hence extraction rate is based on the depth of working). The reserves of mill rock were reassessed in 2016, following the decision to make significant capital investment of £6.5 million at Birkshead; new cutting equipment should enable access to areas of the mine with steeper gradients, to extract greater reserves than previously calculated.

	RESERVES at 31.12.2015	SUFFICIENT UNTIL	COMMENT
mill rock	4.03 million tonnes	2038	suitable for plasterboard manufacture (high gypsum/low chloride)
plaster	0.80 million tonnes	2029	plaster (higher chloride content)
cement rock	not quantified	beyond 2042	used to delay the setting time of cement to make it possible to work/deliver in ready mix vehicles (low gypsum content)

Table 5.10: Birkshead Mine gypsum reserves at 31 December 2015  
source: British Gypsum, 2016

- 5.64 In the Table, the ‘sufficient until’ dates are based on projected outputs. This is a very broad indication of likely requirements over the Plan period, as any number of changes in circumstances could impact on these figures – for example, another recession or the under performance of the new equipment.
- 5.65 Policy SP9 identifies a strategic area for the continued extraction of gypsum; within this currently economically viable area, a site at Stamphill is allocated in policy SAP4, should it be needed towards the end of the Plan period. Policy SP8 identifies a Mineral Safeguarding Area for all gypsum resources within the county that may become economically viable in the future. The alternative of not identifying such sites was not considered reasonable in the light of national policy, and comments made during the Minerals and Waste Development Framework’s Examination by the Planning Inspectorate<sup>81</sup>.

#### *Mudstones and brick clay*

- 5.66 **Brick clay** is the term used to describe clay and shale/mudstones that are used in the manufacture of structural clay products, such as bricks, pavers, tiles and glazed pipes. Suitable clay and shale for brick making is mainly located in the north of the county, from St Bees up to Maryport. However, as bricks are a heavy commodity and utilise high energy resources, many brickworks are located in the Midlands and Home Counties, closer to markets and economically viable sources; the resources in Cumbria are not currently commercially exploited. The exception is the specialist brickworks near

<sup>81</sup> Evidence Base document reference PPP10: Inspector’s Report on the Examination into the Site Allocations Policies and Proposals Map, paragraphs 122 and 123, December 2010

Askam-in-Furness, which utilises material from the adjacent **mudstones** quarry (High Greenscoe), which works the Skiddaw Group shales. Although the Skiddaw Group outcrops elsewhere in the county, there are only limited outcrops of shale suitable for brick making.

- 5.67 National policy<sup>82</sup> requires mineral planning authorities to plan for a 25-year landbank for **brick clay**; however, this is not a practical option in Cumbria. Output from High Greenscoe Quarry has significantly reduced due to the recession and a planning permission to extend the life of the permission to 2028 was approved in 2013. On current extraction rates and remaining permitted reserves, a very rough estimate of the landbank is 37 years. There is, however, a very varied extraction rate of mudstone year-on-year. In the 10-year period between 2007 and 2016, days worked have ranged from 12 to 41; at no point has it reached the permitted 66 days. If the quarry were to extract the maximum amount required to produce bricks at full capacity (10.5 million bricks), then on current reserves, the landbank may only last 12.5 years. If, however, production were to fall back to their lowest levels, the landbank could last for 82 years.
- 5.68 Whilst it is difficult to predict the rate of extraction and life of existing or proposed resources, a strategic policy commitment to identify site(s) to enable continued extraction of brick-making mudstones, and to identify an area next to the existing quarry as a strategic area (policy SP9), have been included in the Plan. Brick clay has a Mineral Safeguarding Area identified in policy SP8.

#### *Industrial limestone*

- 5.69 Some aggregate quarries also market high purity **industrial grade limestone**; but these are not included in the figures for sales of aggregates. Although currently inactive, the most notable of these quarries is Shap Fell, which used to supply the steel industry's lime kilns at the nearby Hardendale Works; there is a current planning application for a further 5.2 million tonnes of industrial limestone, that would, if approved, provide around seven years stock of permitted reserves, which although a very low stock, would take advantage of the adjacent kilns. Stainton Quarry, near Barrow, has an international market for industrial limestones that are used in pharmaceuticals and paper-making; here, the industrial grade limestone lies below that extracted for aggregates. Two other quarries are known to dedicate a small percentage of their limestone reserves for industrial uses, in their case, agricultural purposes.
- 5.70 The broad estimate of the permitted reserves of industrial limestone, outside the National Park, is 1.85 million tonnes with all the quarries having an end date of 2042. Looking at sales for these four quarries, based on current sales levels, the 1.85 million tonnes could last around 140 years; based on both 3-year and 5-year rolling averages, it could last around 120 years. It is not considered that their scale of production warrants a Preferred Area or an Area of Search for industrial minerals alone; all these quarries are located within the general limestone Mineral Safeguarding Area and, therefore, the Mineral Consultation Area. Policy SP10 aims to maintain a steady and adequate

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<sup>82</sup> NPPF paragraph 146

supply of industrial limestone throughout the Plan period, to reflect current national policy<sup>83</sup>.

## Zinc

- 5.71 There has been interest in recent years in the potential for resurrecting **zinc** mining in the North Pennines Area of Outstanding Natural Beauty near Nenthead. Geological investigations by borehole have been carried out under permitted development rights, but no development proposals have been discussed. The dormant permissions for underground mining that exist in the area are shown in Figure 5.1, but it is not yet clear where the exploitable resources lie.

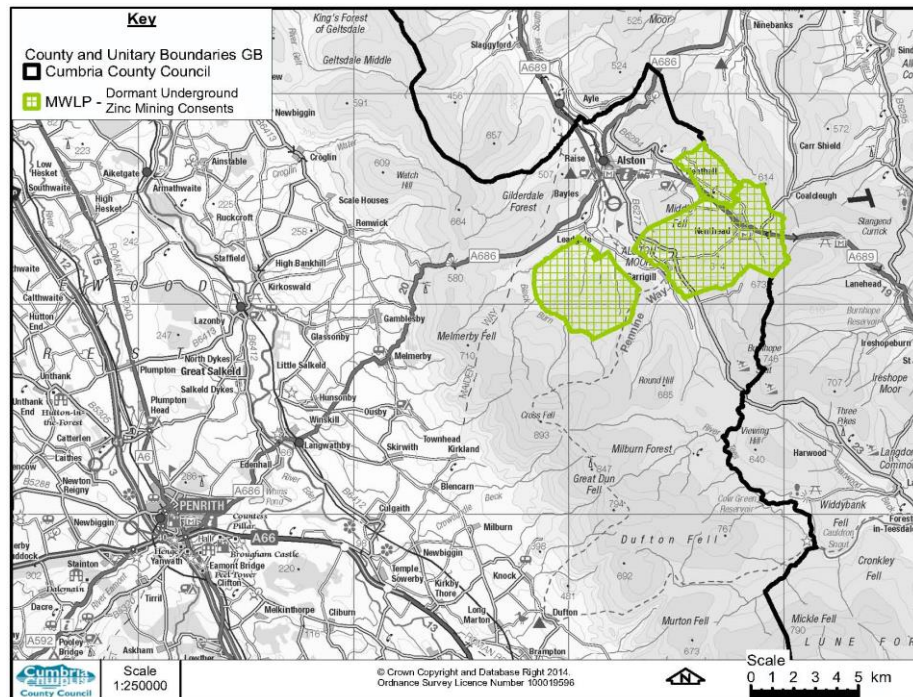


Figure 5.1: Dormant planning consents for underground zinc mining source: Cumbria County Council

- 5.72 There are no extant planning permissions for surface developments, and, as this would be drift mining with a long sloping underground access route, there is currently no information available about the likely location of any surface developments, including associated liquid waste management or mineral waste disposal facilities or haulage routes. Such facilities may be in Cumbria, or in adjoining areas of Northumberland or Durham. As a result, it is not proposed to provide a strategic policy or site allocations and any development proposals would be considered under all relevant policies in this Plan.

## Peat

- 5.73 Although **peat** is regarded as an industrial mineral in Planning Policy Guidance, it is not regarded by NPPF as 'essential', unlike industrial limestone or brick clay, so does not require stocks to be provided; peat is used for horticultural purposes and alternatives are available. Peat is currently worked at one commercial peat site at Solway Moss, where continued extraction is

<sup>83</sup> NPPF paragraph 146

permitted until the expiry of the planning permission in 2042. A scheme to close and restore a second site at Bolton Fell was approved in 2014 following its purchase by Natural England. Figure 5.2 shows the extent of the peat resource that was identified by BGS, and the position of Solway Moss and its planning permission.

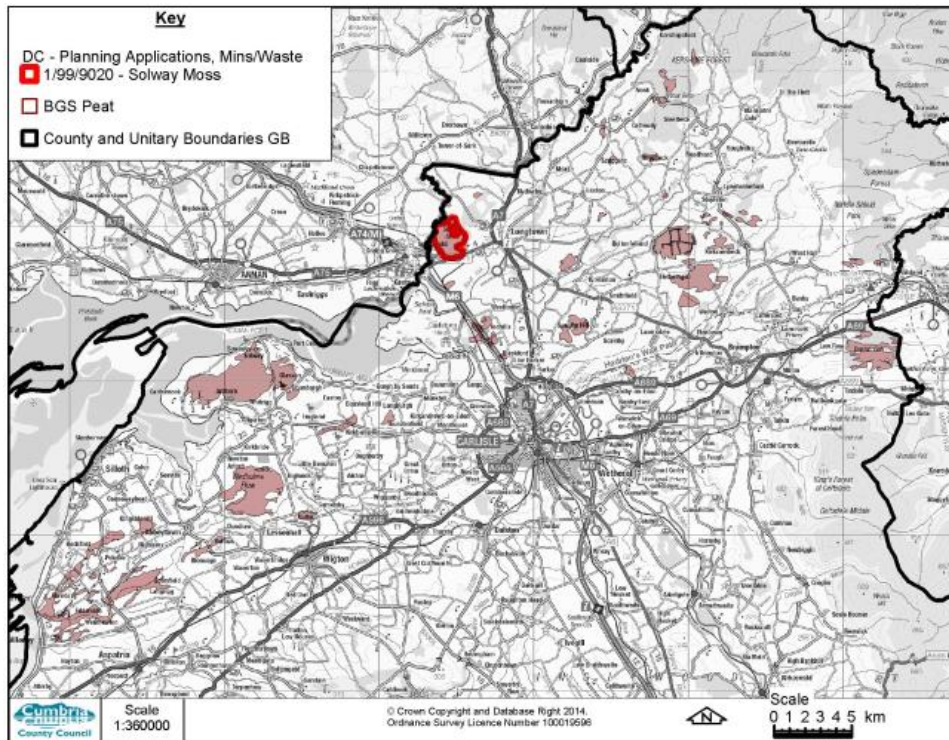


Figure 5.2: Peat resource in north Cumbria, highlighting Solway Moss  
source: British Geological Survey and Cumbria County Council

- 5.74 National planning policy<sup>84</sup> says that, unlike other mineral resources, Local Authorities should not identify new sites or extensions to existing sites for peat extraction, and no further areas for peat extraction are proposed during the Plan period. Furthermore, the impacts from proposals for time extensions for existing peat extraction sites, such as that on climate change and biodiversity, must be fully considered. Planning guidance<sup>85</sup> provides further clarification of the circumstances under which time extensions for peat extraction sites may be considered, for example to allow sufficient time to extract further small quantities of peat, thus facilitating the subsequent proper restoration of the land.
- 5.75 Policy SP12 is intended to address all potential proposals for peat extraction; however, given that Solway Moss has consent to 2042, it is difficult to envisage a situation under which such a time extension might be proposed within the Plan period. The inclusion of the Solway Moss site as a strategic resource was also considered, but rejected as unnecessary, on the grounds that the site has planning permission; any amendments within the site boundary can be dealt with satisfactorily without the site being given a strategic designation.

<sup>84</sup> NPPF paragraph 143

<sup>85</sup> PPG paragraph 224, chapter 27 Minerals (ID: 27-224-20141017)

- 5.76 As peat plays such an important role in climate change as a carbon sink (see Glossary), a strategic policy to protect peat bogs from other types of minerals and waste developments is proposed in chapter 6 of this Plan.

### **Building stones**

- 5.77 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; the other nine quarries do not produce aggregates from their waste, as their waste rock is usually stored on site, for its future or progressive restoration.
- 5.78 The winning, working and processing of building stones make an important contribution to the minerals sector and the economy of Cumbria; they are also important for rural enterprise and diversification of small farms or other businesses. Building stones are used in existing buildings for restoration, conservation and extensions, as well as for new building, decorative and memorial work. Their use is integral to the distinctive character and historic environment of Cumbria and further afield. It is vital to ensure that a steady and adequate supply of building stones is available so that the local character of the county is maintained. The Plan provides a positive and flexible policy framework to support investment in appropriate sites, facilities and skills.
- 5.79 Table 13 in Appendix 3 shows that 11 of the operational building stone quarries have planning consents that expire during the Plan period. Due to the often small scale, slow and intermittent nature of the building stone quarries in Cumbria, it is not anticipated that there will be a need for additional quarries during the Plan period. It is more likely that time extensions and small scale physical extensions will be sought, but all applications, for whatever use of the stone, will be considered on their own merits, in accordance with Policy DC2 and the criteria set out in Policy DC12.
- 5.80 Policy SP9 identifies the Wray Castle slate formation around Kirkby Slate Quarry, which has an international market and is of a much larger scale than all the other building stone quarries, as a strategic area for further supplies of slate, outside the National Park. However, the quarry was granted planning permission in November 2016, giving it a permitted area of 111 hectares, and reserves that now equate to around 1.4 million tonnes of workable stone/slate. Processing occurs at Kirkby Slate Quarry for all of Burlington's building stone quarries, whilst sales from all their quarries are quoted as 100,000 to 110,000 tonnes per annum, in the form of tiles, paving, walling, lintels, construction and landscaping materials, internal polished products and aggregates. To get an idea of scale, the next largest building stone quarry is 8.5 hectares, at Flinty Fell Quarry.
- 5.81 Excluding Kirkby Slate, the average size of a building stone quarry in Cumbria, outside the National Parks, is 2 hectares. The volume of permitted reserves range from 5,000 to 1,000,000 tonnes, though this does not include calculation of waste rock that is often retained on site for restoration, which can range from 10% to 80% of the total extracted. Sales per annum also have a wide



range; of the known sales figures, this is between 0 and 10,000 tonnes. For some building stone quarries, only the maximum permitted sales are known, but site monitoring often shows that these maximums are not reached. Of course, low sales can change and in most cases are shown to be rising since the recession, but because of this situation, the majority of planning permissions since 2007 for the building stone quarries have been time rather than physical extensions.

- 5.82 Development control policy DC12 supports national planning policy<sup>86</sup> to maintain supplies of building stone, whether required for the repair of national and, potentially, international heritage assets, to maintain Cumbria's local architectural distinctiveness, or for a wide range of other uses. All proposals will be assessed using the criteria for non-energy minerals in policy DC12.
- 5.83 Apart from slate, current building stone operations are located within the limestone and sandstone Mineral Safeguarding Areas; there are no operations using igneous rock for building stone purposes. The full range of building stones will be safeguarded from non-minerals development by the igneous, limestone and sandstone Mineral Safeguarding Areas, and thus the Mineral Consultation Area. Table 5.11 provides an overview of the current building stone quarries in Cumbria, outside the National Parks; Part 2 of the Policies Map, Mineral Safeguarding Areas, identifies their locations.

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<sup>86</sup> NPPF paragraph 144

Ref	Quarry	Size (hectares)	End Date	Estimated Sales (tonnes)	Last Permission	Attributes	Uses
<b>LIMESTONE</b>							
L1	Baycliff Hags	1.8	2042	30,000 tpa max 500 (2013) 3,000 (2012)	2012 – boundary amendment	- Urswick Formation - buff coloured with light coffee mottling - often polished for interior use - dense texture, durable	- floors - interior fittings - walling - rock armour
L2	Pickering (from 1.8.2016, in Yorkshire Dales National Park)	2.1	2023	2,000 tpa max 50 (2015) 25 (2014) 550 (2012)	2013 – time extension	- Salterwath Formation - dark blue, weathers to pale grey - dense, easily takes a polish that gives a rich chocolate brown - fine grained, durable, good resistance to acid rain	- Commonwealth war graves (primary use) - load bearing masonry
L3	Rooks (from 1.8.2016, in Yorkshire Dales National Park)	0.7	2017	2,000 tpa max 700 (2015) 800 (2014) 550 (2012) 70% rock = waste	2007 – time and physical extension	- Salterwath Formation - colour varies with finish, from light grey to dark brown/black - possible white crystal inclusions - very dense and durable	- masonry - flooring - walling
L4	Snowhill 1	0.5	2017	50,000 tpa max 40 (2014)	2014 – increase aggregate use	- Eskett Formation - white/light, mottled	- walling - building - armour stone
<b>SANDSTONE</b>							
S1	Snowhill 2	1	2020	on demand 0 (2013, 2011)	2015 – time extension	- grey to brown - very localised use	- walling
S2	Birkhams	1.7	2030	5,000 tpa average 60-80% rock = waste	2015 – time extension	- St Bees Formation - red-plum in colour with darker variations through it - fine grained, consistent texture	- interior cladding - masonry - walling - detailed carving - heritage restoration
S3	Bowscar	5.7	2042	8-11,000 tpa average 65% rock = waste	2015 – physical extension	- Penrith Formation - light pink in colour - high quartz content making it sparkle - medium grained, hard wearing and consistent texture	- walling - cladding - paving - heritage restoration
S4	Crag Nook	4.3	2042	1,000 tpa average 900 (2011) 1,000 (2010)	2012 - ROMP	- Penrith Formation - salmon pink in colour - medium (occasional coarse) grain - resistant to abrasion and weathering	- heritage restoration - vernacular building

Table 5.11: Building Stone Quarries in Cumbria (outside the National Parks)

S5	Flinty Fell	8.5	2024	8,500 tpa average	2010 – physical extension	- Stainmore Formation - grey to white in colour - some with heavy iron staining - fine to medium grained - very hard (used for stone arches in the Nenthead lead mines)	- building stone - roofing - walling - distinctive colour for local and heritage restoration (e.g. Durham Cathedral)
S6	Grange	2.7	2028	3,750 tpa average	2015 – time extension	- St Bees Formation - red in colour - fine grained, consistent texture	- heritage restoration - vernacular building
S7	Lambhill	1.5	2021	7,500 tpa average	2010 – time extension	- Whitehaven Formation - buff/brown in colour with a silver heart - fine grained, textured	- masonry - walling - cladding - paving
S8	Leipsic	1.2	2022	1,000 (2011)	2012 – time extension	- Stainmore Formation - buff to red in colour - fine to medium grained - very hard	- building - paving
S9	Mousegill	1	2016	3,000 tpa average	2006 - restart	- Stainmore Formation - buff/grey in colour - very localised use	- walling - paving
S10	Red Rock Canyon	1	2025	500 tpa average	1999 - start	- Penrith Formation - red in colour - medium grained, hard wearing and consistent texture	- flagstones - flooring - walling
S11	Scratchmill Scar	3.6	2031	20,000 tpa max 2,750 (2015) 7,000 (2014)	2015 – time extension	- Penrith Formation - consistent salmon red colour - enhanced by sparkle of quartz grains - coarse to medium grained	- heritage restoration - vernacular building
S12	West Brownrigg	3.4	2021	500 (2015) 5,500 (2014) 50% rock = waste	2011 – time extension	- Penrith Formation - consistent salmon red colour - coarse to medium grained	- heritage restoration - vernacular building
<b>SLATE</b>							
ST1	Kirkby Slate	111	2050	100,000 tpa average	2016 – time and physical extension	- Wray Castle formation - blue/grey in colour - often polished for interiors	- floors - interior fittings - roofing - architectural

source: Cumbria County Council

## Areas of designation

- 5.84 National planning guidance<sup>87</sup> enables minerals planning authorities to make provision for mineral extraction by identifying the following types of areas (in order of priority):-
- **Specific Sites:** where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms - such sites may also include essential operations associated with mineral extraction;
  - **Preferred Areas:** these are areas of known resources where planning permission might reasonably be anticipated - such areas may also include essential operations associated with mineral extraction; and/or
  - **Areas of Search:** which are broader areas, where knowledge about mineral resources may be less certain, but within which planning permissions for particular sites could be granted, particularly if there is a potential shortfall in supply.
- 5.85 Policy SP7 designates only Preferred Areas and Areas of Search for new mineral extraction, as no potential Specific Sites have been put forward by the minerals industry in the county. Any planning applications for minerals development on Preferred Areas and Areas of Search would be subject to the usual tests of environmental acceptability, and may still require Environmental Impact Assessment.
- 5.86 In addition, minerals planning authorities are required to ensure that non-minerals development does not needlessly prevent the future extraction of mineral resources of local and national importance by designating the following:
- **Mineral Safeguarding Areas:** these are intended to cover known deposits of minerals which require to be safeguarded from unnecessary sterilisation by non-mineral development;
  - **Mineral Consultation Areas:** are geographical areas, based on a Mineral Safeguarding Area, where the district or borough council should consult the Mineral Planning Authority for any proposals for non-minerals development.
- 5.87 The Mineral Safeguarding Areas, identified in policy SP8 and on the Policies Map, are for: sand and gravel, hard rock (including aggregates, high specification aggregates, industrial minerals and building stones), shallow coal and fire clay, brick clay, gypsum and slate resources. They have been identified using British Geological Survey (BGS) resource data<sup>88</sup> and in consultation with industry. Mineral Safeguarding Areas (MSAs) have been defined by adding a 250 metre wide buffer to each mineral resource. The Mineral Consultation Area equates to all the MSAs together, and is to enable consultation between the county and district councils about development that

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<sup>87</sup> PPG paragraph 008, chapter 27 Minerals (ID: 27-008-20140306)

<sup>88</sup> Evidence Base document reference LD46: Mineral Resource Information for Development Plans - Cumbria and the Lake District: Resources and Constraints, BGS Technical Report reference WF/01/02, 2001

would either be likely to affect the winning and working of minerals, or where mineral working could affect other existing or proposed land uses.

- 5.88 The need to safeguard other mineral resources, secondary aggregate resources and existing or potential railheads and wharves, are considered in the site allocations policies. Policy SAP4 sets out the type of suitable locations where secondary or recycled aggregate facilities may be located, whilst SAP6 identifies those sites where it is considered necessary to safeguard existing and potential railheads and wharves. The supporting text to those policies indicates why those sites require safeguarding in the longer term.

### **Energy minerals (including conventional and unconventional hydrocarbons)**

#### *Coal and fireclay*

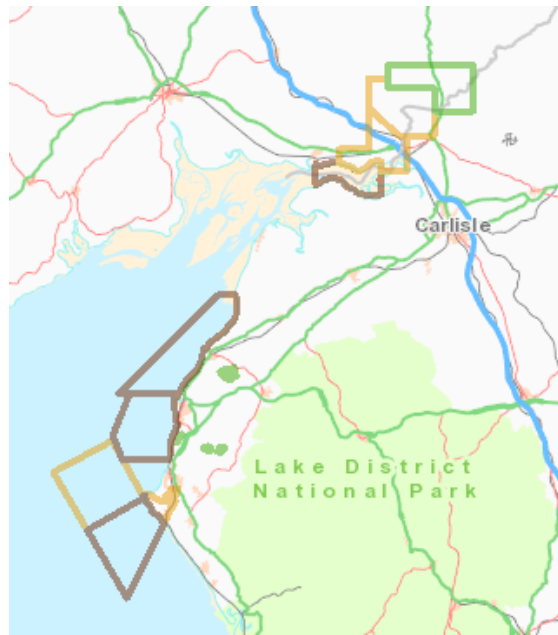
- 5.89 Cumbria has extensive coal and associated fireclay resources, although the last deep mine, Haig Colliery, closed in 1986 and there are no active surface coal extraction sites in Cumbria – the last of these was Keekle Head, which ceased operations around 2001. There is one inactive planning permission at Main Band Colliery near St Bees, which expires in June 2018. There is also a working mine at Ayle in adjacent Northumberland and a planning permission for a small surface coal development in Halton Lea Gate, also in Northumberland; both are close to the Cumbria boundary.
- 5.90 The ongoing demand for energy minerals has led to increased interest in Cumbria's resources in recent years, and a proposal is currently being developed by West Cumbria Mining Ltd to open a new underground (i.e. deep) mine near Whitehaven, extracting coking coal for use in the steel industry. Exploratory boreholes were drilled in October 2014; appraisal was favourable, and the Council is in discussion with the developer on planning applications for new surface works and infrastructure, which may be expected early 2017<sup>89</sup>. The company describes<sup>90</sup> the coalfield as *“extending from onshore to offshore, over 400m below ground and the sea, along the coast of Whitehaven, West Cumbria in NW England and covering an area of 200km<sup>2</sup>”*.
- 5.91 Figure 5.3 shows provisional licences indicated on the Coal Authority website<sup>91</sup> as at 7 April 2016. Exploration is permitted in these areas, and if sufficient potential is established, applications for operational licences are sought, usually for smaller areas where viable reserves are proven. Planning consent and land owners agreement are required before operational licences are granted. More detail about each area is included in Table 5.12.

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<sup>89</sup> application submitted June 2017

<sup>90</sup> <http://www.westcumbriamining.com/site/>

<sup>91</sup> <http://mapapps2.bgs.ac.uk/coalauthority/home.html>



	Underground Coal Gasification (UCG)		Underground coal extraction plus UCG		Surface and/or underground coal extraction
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Figure 5.3: Licences granted by the Coal Authority (at 7.4.2016)

- 5.92 Table 5.12 reflects updated information provided by the Coal Authority<sup>92</sup>, which confirmed that the three most southerly areas shown in Figure 5.3 encompass the West Cumbria Mining’s area of interest. Of these, one offshore area (UCG/0012/N) permits exploration for underground coal extraction (accessed from onshore), whilst the other offshore area (UCG/0021/N) permits exploration for Underground Coal Gasification (UCG), which is an unconventional process for recovering gas from coal seams and is addressed in the oil and gas section of this Plan. Further licences for exploration for UCG, without prior coal extraction, have been granted in the two areas shown offshore from Workington and Maryport (UCG/0033/N and UCG/0037/N respectively). Any operational licence for the offshore areas would need to define the location of onshore development and be subject to securing planning consent.
- 5.93 There are two conditional licences for underground mining (UND/0176/N and UND/0182/N), which extend across the border between Cumbria and Dumfries and Galloway in Scotland. Dumfries and Galloway Council have been informed about draft proposals for coking coal extraction in these areas, but no planning application or details of surface works have been submitted<sup>93</sup>. It is not yet known whether the extent of mining, surface works or transport issues would affect Cumbria, so this will be kept under review.
- 5.94 A further provisional licence for surface mining (OPC/0431/N) covers an area to the east of the above two licences, including land within Cumbria. Any subsequent application for an operational licence would reduce and refine a development boundary, so it is unclear yet whether Cumbria would be affected. A UCG licence (UCG/0008/N) is also in place along the Solway Firth,

<sup>92</sup> Coal Authority, 7 April 2016

<sup>93</sup> information request to Dumfries and Galloway Council, 4 April 2016

adjacent to the underground mining licence area; the company who took up this licence, Five Quarter, announced in March 2016 that they had ceased trading. The licence is in place at the present time, but may be revoked or surrendered.

5.95 Table 5.12 sets out the background details to Figure 5.3, listing the licence areas from north to south.

Status	Reference	Name	Type	Company
Future	OPC/0431/N	Canonbie Prospect	Surface also permits shallow coal mining	Kier Mining and Buccleuch Estates
Future	UND/0176/N	Lochinvar Project	Underground	New Age Exploration Ltd
Future	UND/0182/N	Lochinvar Project - Southern Area	Underground	
Future	UCG/0008/N	Solway Firth	UCG	Five Quarter Energy
Future	UCG/0037/N	Maryport	UCG only	Cluff Natural Resources Ltd
Future	UCG/0033/N	Northern Cumbria Offshore	UCG only	
Future	UCG/0012/N	West Cumbria Offshore	Underground offshore	West Cumbria Mining
Future	UCG/0021/N	Whitehaven Offshore No 2	UCG only	
Future	UND/0177/N	Whitehaven South Prospect	Underground onshore	

Table 5.12: Licence applications  
source: Coal Authority, April 2016

5.96 The West Cumbria coking coal proposal, referred to in paragraph 5.90, would not supply “thermal coal” used in power stations, much of which is currently being imported to the UK from the US because the availability and low cost of shale gas has depressed the US price for coal. UK demand may decrease during the Plan period due to the Government policy of phasing out coal fired power stations and no longer supporting Carbon Capture and Storage (CCS); however, if support for CCS was to be picked up again in the future, this could lead to new fully abated coal fired power stations. Cumbria’s resources, therefore, could be important in the longer term and safeguarding, i.e. preventing sterilisation by other development, is addressed in policy DC15 Minerals safeguarding.

5.97 National policy<sup>94</sup> requires mineral planning authorities to identify any areas where coal extraction and the disposal of colliery spoil may be acceptable, and to highlight areas where mineral extraction is expected to take place, as well as managing potentially conflicting objectives for use of land<sup>95</sup>. The following paragraphs and figures indicate the areas with deep or shallow mining

<sup>94</sup> NPPF paragraphs 147 and 149

<sup>95</sup> PPG paragraph 007, chapter 27 Minerals (ID: 27-007-20140306)

potential, but also a number of constraints that would need detailed environmental assessment, as outlined below.

5.98 Figure 5.4 shows the deep coal resources in Cumbria. The resources offshore, and on the Scottish border, are currently under investigation as discussed in paragraph 5.93. The key issues with respect to deep mining proposals, which would be relevant for Cumbria County Council, would be the siting of any surface facilities, transport and other infrastructure, disposal of colliery spoil, as well as the associated impacts on populations, landscape and the natural environment. It is considered that these issues are most appropriately managed through development control policy, including policy on mineral safeguarding.

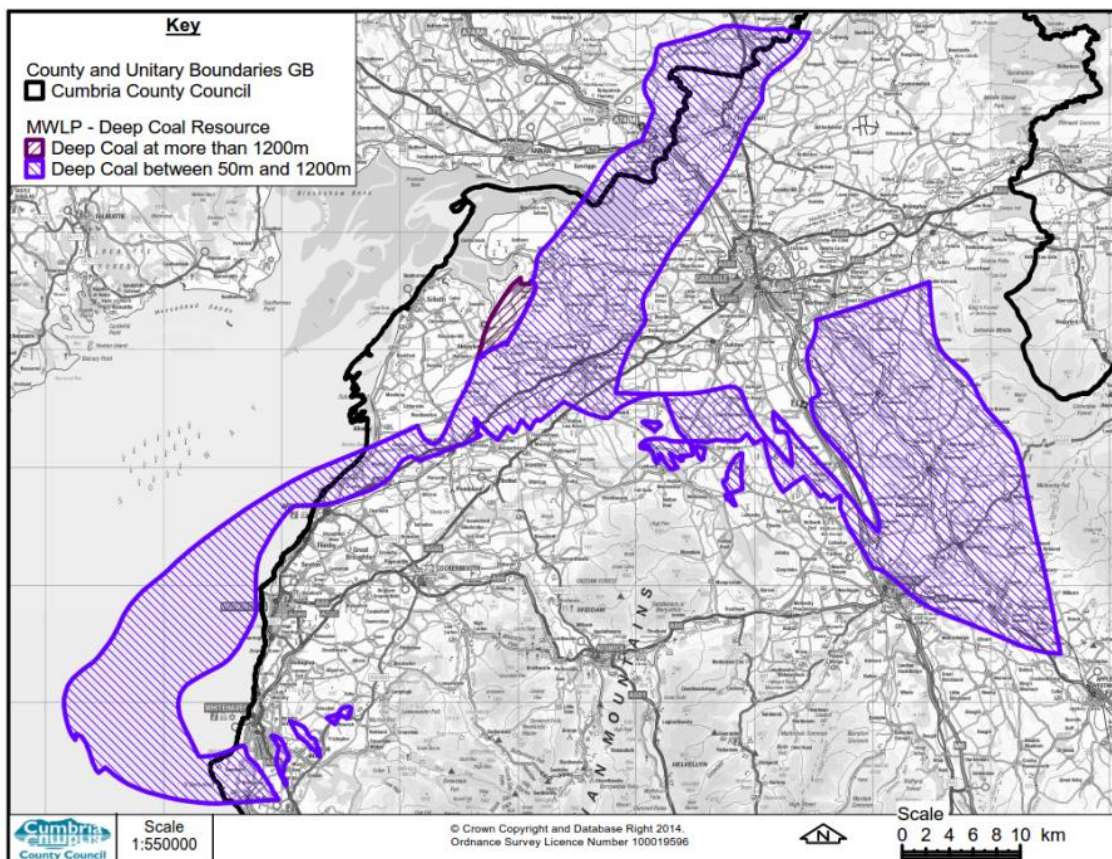


Figure 5.4: Deep coal resources  
source: the Coal Authority

5.99 The surface and shallow coal measures, with associated fire clay (Figures 5.5 and 5.6), underlie a wide range of landscape types, with both compact towns and dispersed residential areas on the west coast, plus rural areas with widely dispersed population in the Eden Valley.



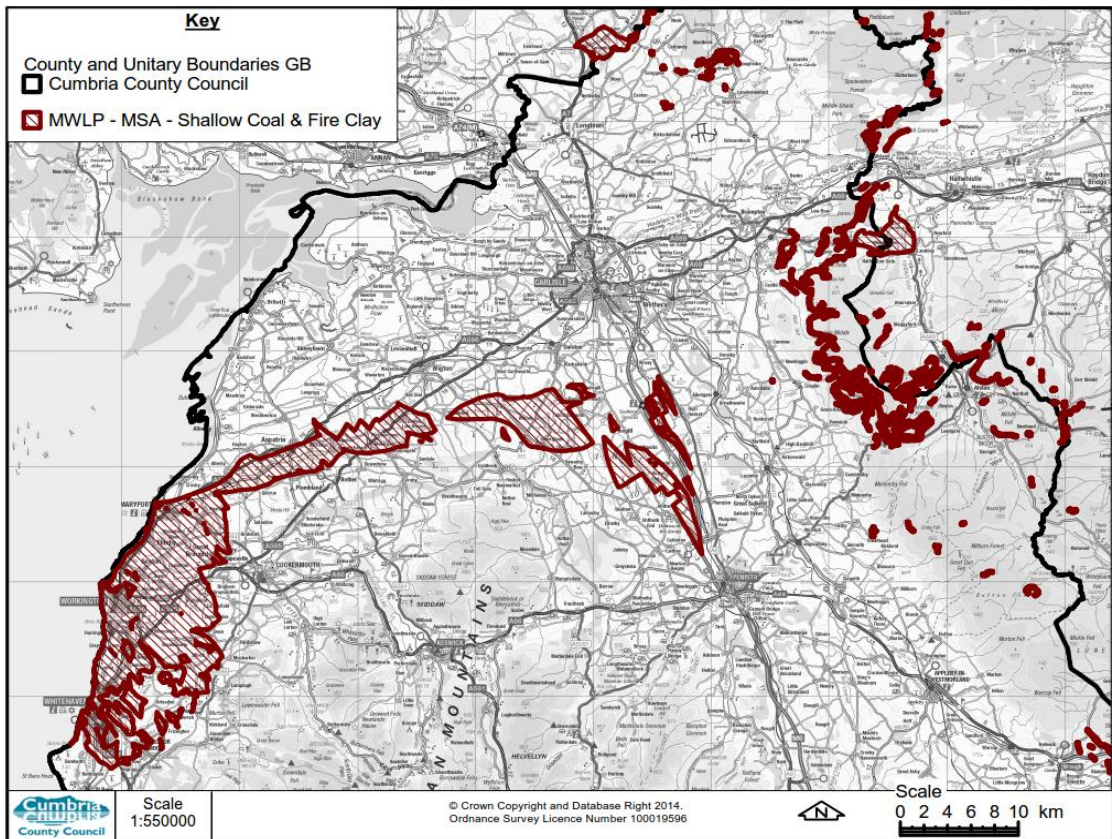


Figure 5.5: Shallow coal and fire clay  
source: British Geological Survey

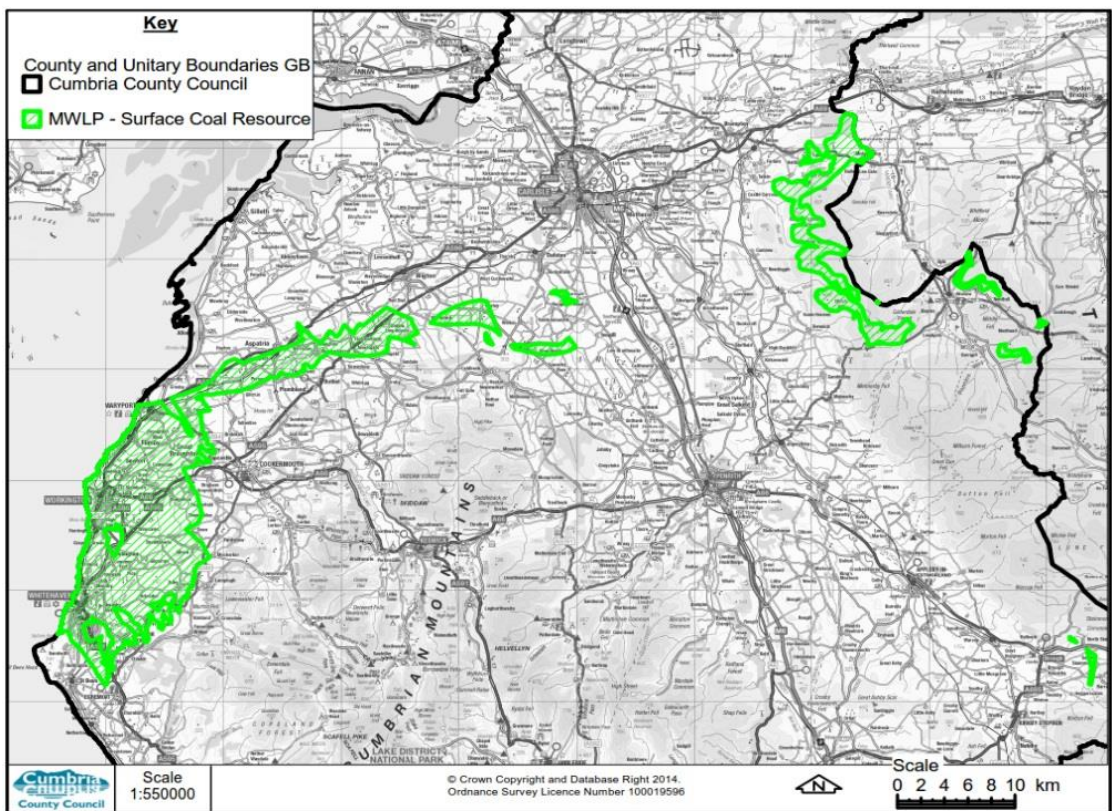


Figure 5.6: Surface coal resources  
source: the Coal Authority

5.100 Proposals for surface extraction of coal could be expected to have adverse impacts over a significant area, even if temporary. It can be seen that the western area of shallow coal resources skirts the Lake District National Park, contains the St Bees Head Heritage Coast, part of the Solway Coast AONB, and part of the Frontiers of the Roman Empire World Heritage Site (Hadrian's Wall) and its visual impact zone. Much of the Solway Coast AONB is also designated as a Site of Special Scientific Interest (SSSI), and there is also a Special Area of Conservation, Special Protection Area and a Ramsar site associated with the Solway Firth and its surroundings. Furthermore, the eastern area of the shallow coal resource is largely within the North Pennines Area of Outstanding Natural Beauty (NP AONB).

5.101 There is considerable experience of surface coal extraction in West Cumbria, and one site, at Keekle Head, has still not been restored following cessation of extraction around 2001. Two non-inert landfills in West Cumbria also occupy areas previously subject to surface coal extraction, although it should be noted that such development does not create a usable void space due to the lower density of colliery spoil compared to the extracted material.

5.102 The previous policies in the 1996-2006 Minerals and Waste Local Plan, ruled out surface coal extraction in the Alston/Nenthead area of the NP AONB, in East Fellside in the Eden valley, and any such extraction that would inhibit inward investment, economic development and tourism in West Cumbria, or have adverse impacts on designated landscapes. These issues, however, are addressed by other policies in this Local Plan, and by national policy, which states that:

*“Permission should not be given for the extraction of coal unless the proposal is environmentally acceptable, or can be made so by planning conditions or obligations; or if not, it provides national, local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission”<sup>96</sup>.*

5.103 Options for coal extraction were considered on an area basis during the MWDF process, and one Area of Search for coal was proposed on a large brownfield site at Broughton Moor in Allerdale. The site was, however, removed as undeliverable, because the regeneration plan agreed in December 2011 by Allerdale and Cumbria County Council (the site owners) excluded prior extraction of the coal as an option.

5.104 It is, therefore, deemed appropriate to consider all such applications on their merits, and in the light of detailed proposals, rather than make a strategic or site allocation policy defining “acceptable areas” for either coal extraction or storage or disposal of spoil. The County Council considers both types of development would be more positively addressed through appropriate Development Control policies: see policy DC13 Criteria for energy minerals, and DC15 Mineral safeguarding. Many other policies in this Local Plan could also be relevant.

5.105 To assist with decision-making on any proposals for coal development that may come forward, the Coal Authority also provides maps of the areas that

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<sup>96</sup> NPPF paragraph 149

have already been worked for coal, notifies local planning authorities under the provisions of Article 18 and Schedule 4 of the Town and Country Planning (Development Management Procedure) (England) Order 2015, and publishes Standing Advice.

5.106 The strategic issues in relation to energy minerals, i.e. hydrocarbon developments, are considered by mineral planning authorities in the light of national planning guidance as contained in the NPPF, PPG and national energy policy. In addition, the location of oil and gas development is governed by the Department for Business, Energy and Industrial Strategy (BEIS), formerly it was the Department of Energy and Climate Change (DECC), through the allocation of Petroleum Development and Exploration Licences (PEDL) and, therefore, it is not necessary for this Local Plan to allocate strategic locations for such development.

5.107 The NPPF and PPG do require mineral planning authorities to:

- make appropriate provision for hydrocarbon development in their Local Plan;
- highlight areas where proposals for hydrocarbon extraction may come forward<sup>97</sup>;
- address constraints on production and processing within areas that are licensed for oil and gas exploration or production<sup>98</sup>; and
- manage potentially conflicting objectives for use of land.

5.108 In order to fulfil these obligations, the County Council made an assessment in 2015, based on published information from, at that time, DECC's Office of Unconventional Gas and Oil (OUGO), of the most likely locations and types of oil and gas development within Cumbria, and whether it is likely that any such proposals may be put forward within the Plan period. A summary of this assessment, and the key documents that have informed it, is contained in the paragraphs below.

5.109 The current onshore oil and gas PEDL licences in Cumbria, are shown in Figure 5.7. All licences granted, and any future areas offered for licence, can be seen on the Oil and Gas Authority's website<sup>99</sup>. The former licenced area (within PEDL 159) around Carlisle was owned by Igas (previously Dart Energy and Greenpark Energy), with the intention of extracting coal bed methane; however, Igas have now relinquished this licence. The licenced areas SD16, 17, 26a and 26b around Barrow, were secured by Reach Coal Seam Gas Limited in December 2015; they intend to drill or drop one well for shale gas, but need to make a firm commitment to proceed in the first five years of the licence.

5.110 The County Council has not received any expressions of interest in conventional onshore oil or gas development, although there is an offshore gas field to the south and west of the county, off the coast at Barrow. DECC and OUGO gave some indication of the likelihood of Coal Bed Methane (CBM) development, in which methane is extracted from coal seams that have never

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<sup>97</sup> PPG paragraph 105, chapter 27 Minerals (ID: 27-105-20140306)

<sup>98</sup> NPPF paragraph 147

<sup>99</sup> <https://decc-edu.maps.arcgis.com/apps/webappviewer/index.html?id=29c31fa4b00248418e545d222e57ddaa>

been mined, and shale gas development, in which gas (not exclusively methane) is extracted from impermeable shale deposits. They encouraged research in both types of development, in order to clarify the extent and recoverability of UK unconventional gas resources. Their replacement, the Oil and Gas Authority created in 2016, is committed to maximising the economic recovery of hydrocarbons from the UK Continental Shelf, through research, exploration and appraisal activities. National planning guidance says that:

*“there is a pressing need to establish – through exploratory drilling – whether or not there are sufficient recoverable quantities of unconventional hydrocarbons such as shale gas and coal bed methane present to facilitate economically viable full scale production”<sup>100</sup>.*

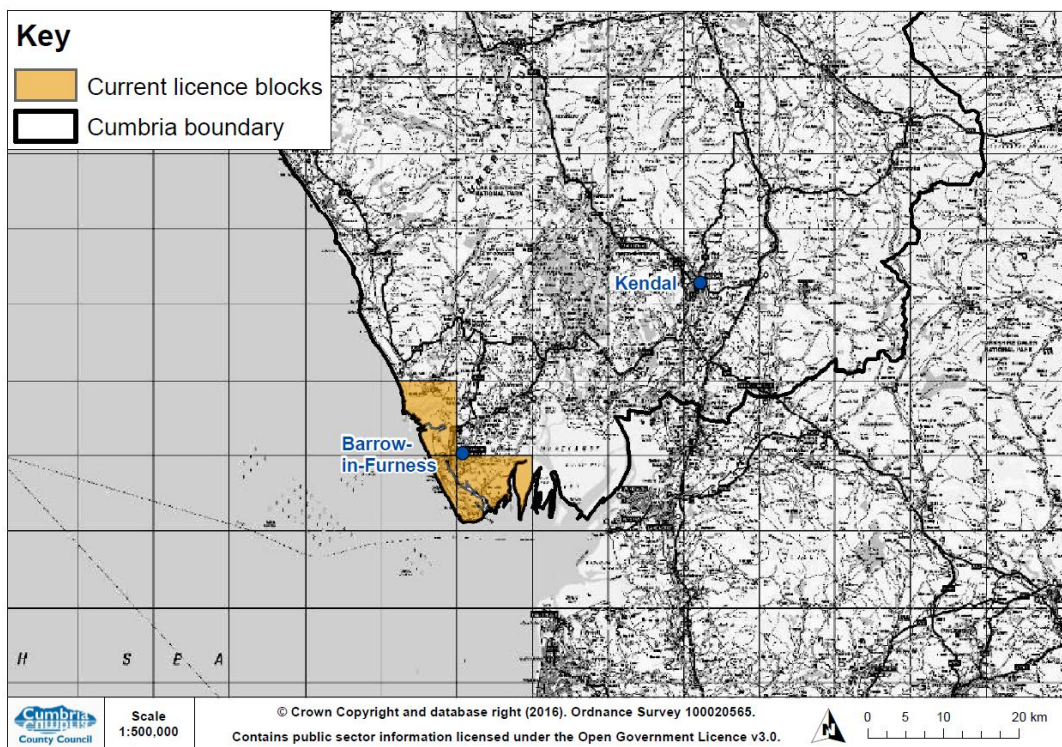


Figure 5.7 Current onshore licence blocks in Cumbria  
source: DECC 2016

### Shale gas

5.111 DECC also commissioned British Geological Survey (BGS) to undertake assessments of “prospective areas” where shale gas production could progress quickly; shale development appears to be focused currently on the BGS study areas of the Bowland Shale and the Weald Basin. There is no current BGS assessment that specifically covers Cumbria but, as shown in Figure 5.8, the Bowland Shale study indicates a very limited extension of that hydrocarbon basin into Cumbria. Current maps of likely shale resources<sup>101</sup> do not show further resources in the county, but a thin band of potentially suitable measures have sometimes been reported along the deep coal resource north of the Lake District National Park boundary.

<sup>100</sup> PPG paragraph 091, chapter 27 Minerals (ID: 27-091-20140306)

<sup>101</sup> Evidence Base document reference ND177: The Unconventional Hydrocarbon Resources of Britain’s Onshore Basins: Shale Gas, DECC, 2013

5.112 No interest in appraising these resources has been addressed to the County Council at the time of writing this Plan, and it would be reasonable to expect that development of shale gas would progress first in areas that are currently being investigated. The Strategic Environmental Assessment (SEA) of the 14<sup>th</sup> Round Licensing Offer for PEDLs in 2014, concluded that “it is noteworthy that the industry is not expected to be at substantial scale before the 2020s”<sup>102</sup> and, whilst this Local Plan should contain policies related to shale gas development, it is considered that if widespread development was to come forward, it would probably be towards the end of the Plan period.

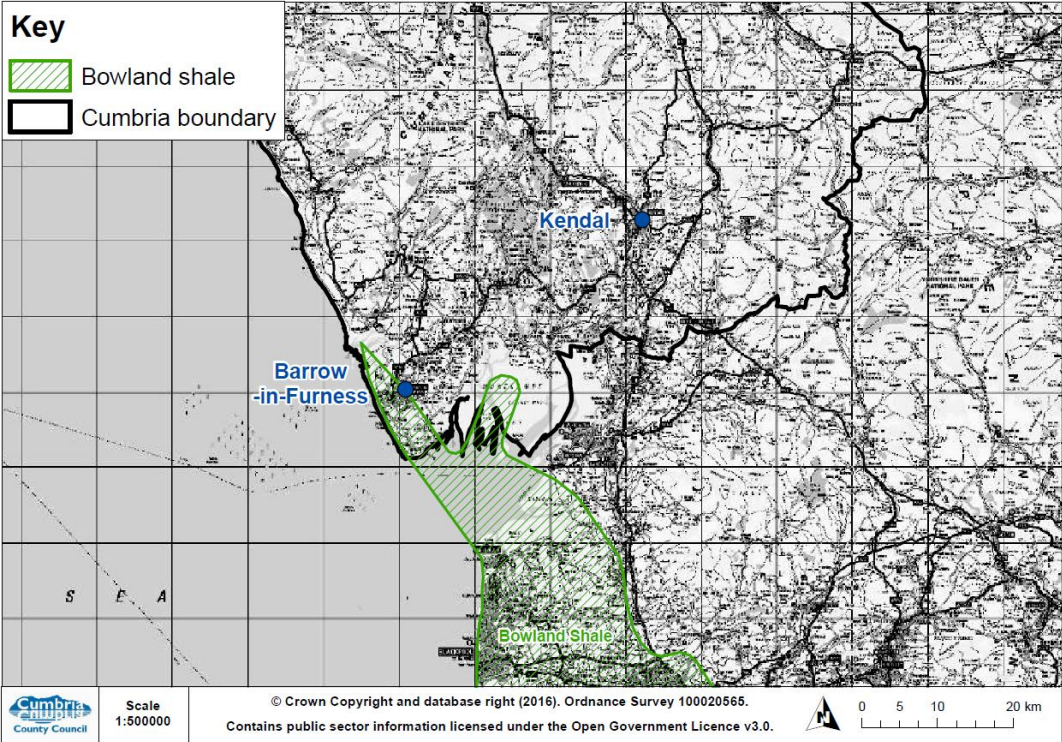


Figure 5.8: Bowland shale in relation to Cumbria  
 source: The Hydrocarbon Prospectivity of Britain’s Onshore Basin, DECC 2011

*Coal Bed Methane*

5.113 There is a much stronger likelihood of Coal Bed Methane (CBM) development within Cumbria within the Plan period. Figure 5.9 is taken from a 2013 DECC report on the potential for CBM in Britain’s onshore basins. It indicated that there is “good potential for coal bed methane” in the Cumbria-Canonbie coalfield area<sup>103</sup>, although the report contained little detailed information about the nature of the resource.

5.114 Figure 5.9 shows the most likely locations for such development, and the resources were subject to initial exploratory drilling in 2009. The exploratory wells have since been restored without any gas production taking place. CBM development in the same coalfield in Dumfries and Galloway has also not been progressed yet, with the company that previously held the PEDL licence near Longtown, concentrating on progress in central Scotland. It is, however,

<sup>102</sup> The Environmental Effects of Onshore Oil and Gas Licensing (two page synopsis), AMEC, 2014  
<sup>103</sup> Evidence Base document reference ND176: The Unconventional Hydrocarbon Resources of Britain’s Onshore Basins: Coalbed Methane (CBM), DECC, 2013

considered likely that CBM exploration, and production, proposals will come forward in the Plan period.

5.115 In considering potential need for supporting infrastructure, possible constraints on production and processing, and potential conflicts with other land uses, it is necessary to look at the nature of CBM production. The constraints listed in paragraph 5.100 in considering coal development are also relevant for CBM proposals, and would need to be considered during site selection.

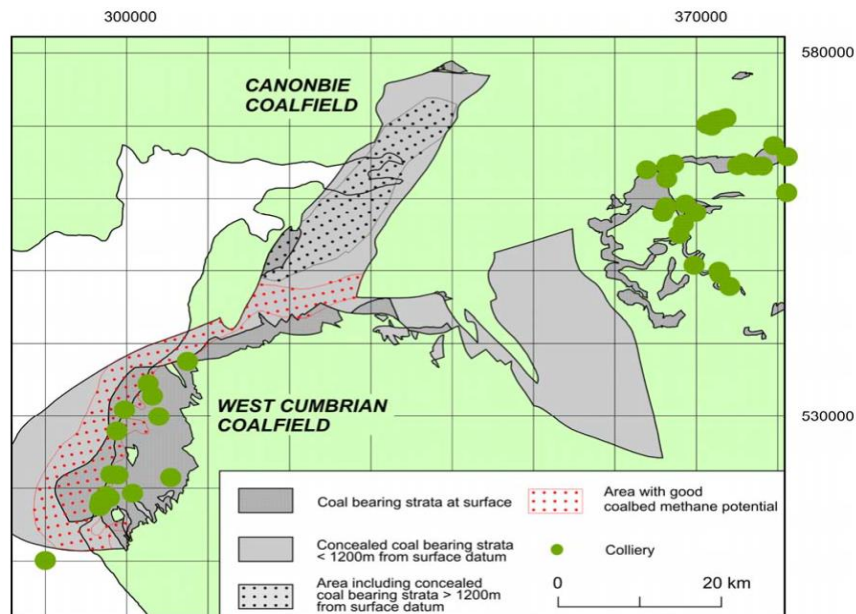


Fig. 32 Cumbria-Canonbie – summary map of unconventional hydrocarbon potential

Figure 5.9: The Cumbria-Canonbie coalfield area  
source: DECC 2013

5.116 CBM extraction releases gas by pumping out the water held in the coal seam, but hydraulic fracturing of the seam to increase gas flow is sometimes also necessary. Drilling the well requires a significant volume of water, as would any hydraulic fracturing required, but very large volumes of water may need to be pumped from the underground coal measures to enable gas to flow. Safe handling and disposal of this water, which has some similarities to “mine drainage” encountered around previous coal developments, requires either onsite treatment, new pipelines to appropriate disposal points or significant traffic movements.

5.117 Development proceeds using horizontal drilling techniques and several wells can be centred on one drilling pad site. However, exploration and appraisal currently requires two wells sited 1km apart, and viable commercial exploitation of a gas field may need a significant number of drill pads, together with shared ancillary development for water treatment and gas compressing. The need for pipelines to enable connection to the gas transmission network is particularly relevant in rural areas, which currently have no gas distribution network. The active phase of drilling and site set up for each well is of a relatively short duration, and the impact of a well pad once gas is flowing is considerably reduced. However, impacts, particularly on highways and landscape, may not be appreciated until an overall development plan for

exploitation of the CBM resource area, including drilling of new wells, and potentially re-drilling for final capping and restoration, has been considered.

5.118 The cumulative impact of full commercial development on other land-uses, particularly residential areas and tourism, would need to be assessed for each proposal. If significant volumes of water are required, the cumulative impacts with other major development in the area, such as new nuclear build, and impacts on Cumbria's environmental assets would need to be considered, and future proposals for radioactive waste disposal should also be kept under review. The policy alternatives considered by the County Council largely related to the need to address all the potential types of hydrocarbon development at a practical level, which reflected experience and developing understanding of the potential issues.

5.119 As a result of these considerations, a single Development Control policy, DC13 Criteria for energy minerals, is proposed in chapter 15. This would include consideration of Underground Coal Gasification, which is also a possibility as conditional UCG licences (a separate process from PEDL) have been granted by the Coal Authority in offshore areas around Cumbria. Such development could follow underground mining development in some cases, but can currently only take place offshore. The mineral planning authority would, therefore, be involved only in associated onshore infrastructure or exploratory works, which may still give rise to a range of material planning considerations.

### **Mineral policies**

#### **POLICY SP7 Minerals provision**

Provision for potential further mineral working will be made by identifying Preferred Areas and/or Areas of Search:-

- to enable a landbank at the Local Aggregates Assessment level of at least seven years sales for sand and gravel and at least ten years for crushed rock to be maintained throughout the Plan period;
- for a steady and adequate supply of nationally important very high specification roadstone and regionally important high specification roadstone;
- for a steady and adequate supply of brickmaking mudstones;
- for a steady and adequate supply of slate; and
- for a steady and adequate supply of gypsum; and
- for a steady and adequate supply of building stone.

### **POLICY SP8 Minerals safeguarding**

Mineral resources, existing, planned and potential infrastructure and plant will be safeguarded from being unnecessarily sterilised by other developments by identifying:-

- existing and potential railheads and wharfs to be safeguarded;
- Mineral Safeguarding Areas for the indicative sand and gravel and hard rock resources (including aggregates, high specification aggregates, industrial minerals and building stones), shallow coal and fireclay resources;
- Mineral Safeguarding Area for identified resources of brick clay;
- Mineral Safeguarding Areas for the remaining gypsum resources;
- Mineral Safeguarding Area for identified resources of slate;
- Mineral Safeguarding Area for identified resources of secondary aggregates;
- Mineral Consultation Area, which covers the resources within all the Mineral Safeguarding Areas.

### **POLICY SP9 Strategic areas for new mineral developments**

The **Kirkby Thore/Long Marton** area is identified as the location for further supplies of gypsum, if required towards the end of the Plan period.

Land next to **High Greenscoe Quarry** is identified as the location for further supplies of mudstones for the Askam in Furness brickworks.

Land next to **Kirkby Slate Quarry** is identified as the location for further supplies of slate.

The sandstones near **Roan Edge Quarry** and **Holmescales Quarry** are identified as the locations for further supplies of regionally important high specification roadstone.

The sand and gravel resources in the **Roosecote** area and near **Peel Place Quarry** are identified as the location for further supplies of sand and gravel in the south west of the county.

### **POLICY SP10 Marine dredged aggregates**

Planning permission will be granted for developments that demonstrate both an appropriate location and that they do not have unacceptable environmental impacts when enabling the increased use of marine dredged aggregates as an alternative to land won aggregates.



**POLICY SP11 Industrial limestones**

To ensure a steady and adequate supply, any proposal for the extraction of high purity limestone should demonstrate that it is primarily for non-aggregate uses. Each application will be considered on its own merits against other relevant policies in this Plan, regardless of the stock of permitted reserve. However, low stocks of permitted reserves, to serve a related industrial facility, may be seen as an indicator of urgent need.

**POLICY SP12 Peat**

Planning permission will not be granted for peat extraction from new or physically extended sites.

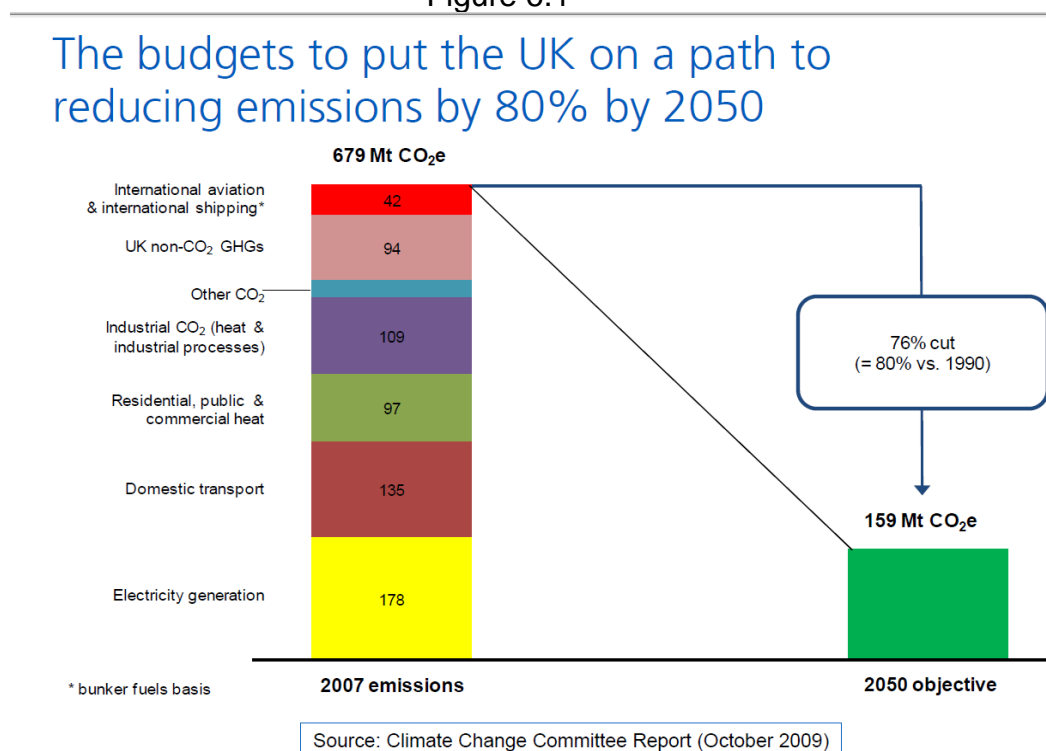
Time extensions for existing peat extraction planning consents will be considered on a case-by-case basis, where it is demonstrated that it is necessary to enable the proper restoration of the land or to secure biodiversity, climate change or other appropriate objectives of this Plan.

## 6. CLIMATE CHANGE

### Background

- 6.1 In 2006, Sir Nicholas Stern's review<sup>104</sup> of the economics of climate change and development confirmed the serious global threat to world output, human life and on the environment, posed by climate change. The UK Government responded to the need to limit global temperature rises, and enacted the Climate Change Act (2008), which requires the UK to achieve an 80% reduction in greenhouse gas emissions by 2050 relative to 1990 levels.
- 6.2 The size of the challenge in meeting this commitment is illustrated in Figure 6.1, which gives some indication of the urgent need to reduce the carbon intensity of electricity generation. Methane from landfills, sewage treatment and damaged or drying peat bogs are included in the category "UK non-CO<sub>2</sub> GHGs" (Figure 6.1), and also need to be addressed.

Figure 6.1



- 6.3 The best way to reduce greenhouse gas (GHG) emissions is to reduce energy usage, as explained in the energy hierarchy in Figure 6.2. In the context of minerals and waste developments, energy saving includes minimising transport (especially road transport) where possible.
- 6.4 Increasing the efficiency of processes and plant is the next priority, followed by replacing fossil fuels with low carbon energy sources. Reducing energy use can reduce energy costs rapidly and has both economic and environmental advantages; whilst generating low carbon energy from renewable sources, including waste, contributes to energy security and can also reduce costs over the longer term.

<sup>104</sup> Stern Review on the Economics of Climate Change, HM Treasury, October 2006

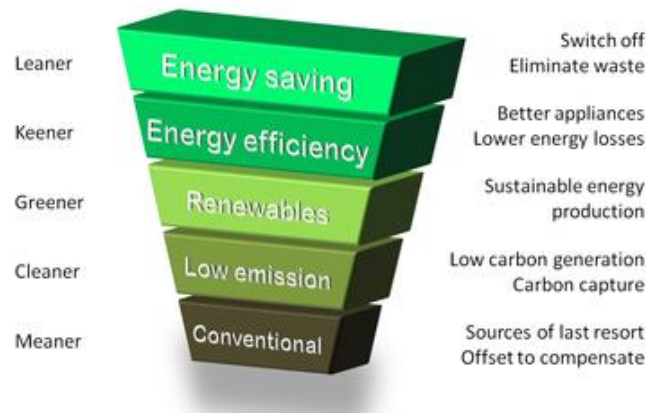


Figure 6.2: the Energy Hierarchy

- 6.5 The implementation of the waste hierarchy (see chapter 3) also reduces greenhouse gas emissions by reducing energy intensive extraction of, and production from, virgin materials. However, a balance is required between the benefits of increased recycling<sup>105</sup> and increased traffic and energy consumption at material recovery facilities.
- 6.6 Minimising use of fresh water, and consequent energy use in wastewater treatment, also has a significant role in reducing energy use and consequent greenhouse gas emissions. This can be relevant for oil and gas exploration, and other minerals and waste developments that use mains water supply or connect to public sewers.

### Where we are now

- 6.7 The Climate Change Act established a system of five-yearly carbon budgets, the first four of which have been set in law<sup>106</sup>; the Act also established the Committee on Climate Change to make recommendations and monitor progress. The first carbon budget (2008-12) was met<sup>107</sup> through a combination of the impact of the recession and low-carbon policies, and the UK is currently in the second carbon budget period (2013-17). The third carbon budget (2018-22) requires that emissions be reduced by 34% on 1990 levels and the fourth carbon budget (2023-27) requires a 50% reduction on 1990 levels during that period. The fifth carbon budget (2028-2032) will also be relevant for this Plan; the Committee on Climate Change recommended an 80% reduction on 1990 levels<sup>108</sup>, but in 2016, Government legislated the final level as a 57% reduction<sup>109</sup>. The current UK strategy for achieving these budgets is the Carbon Plan<sup>110</sup>.

<sup>105</sup> [http://www.esauk.org/esa\\_policies/carbon\\_management/](http://www.esauk.org/esa_policies/carbon_management/)

<sup>106</sup> Evidence Base document reference ND153: The Carbon Budget Order, SI1603, 2011

<sup>107</sup> Evidence Base document reference ND154: "Meeting Carbon Budgets – 2014 Progress Report to Parliament", Committee on Climate Change, July 2014 (Executive Summary, page 1)

<sup>108</sup> <https://www.theccc.org.uk/publication/the-fifth-carbon-budget-the-next-step-towards-a-low-carbon-economy/>

<sup>109</sup> <https://www.theccc.org.uk/tackling-climate-change/reducing-carbon-emissions/carbon-budgets-and-targets/>

<sup>110</sup> Evidence Base document reference ND105: The Carbon Plan: Delivering our low carbon future, DECC, December 2011

6.8 The Committee on Climate Change also warns that steeper reductions may be required if increases in global temperature are to be limited sufficiently to avoid the most dangerous consequences. International aviation and shipping emissions, for example, have not yet been addressed in the UK budgets, ongoing emissions from food production will need to continue even if at a reduced level, and some adjustments for historically undeveloped economies may need to be made.

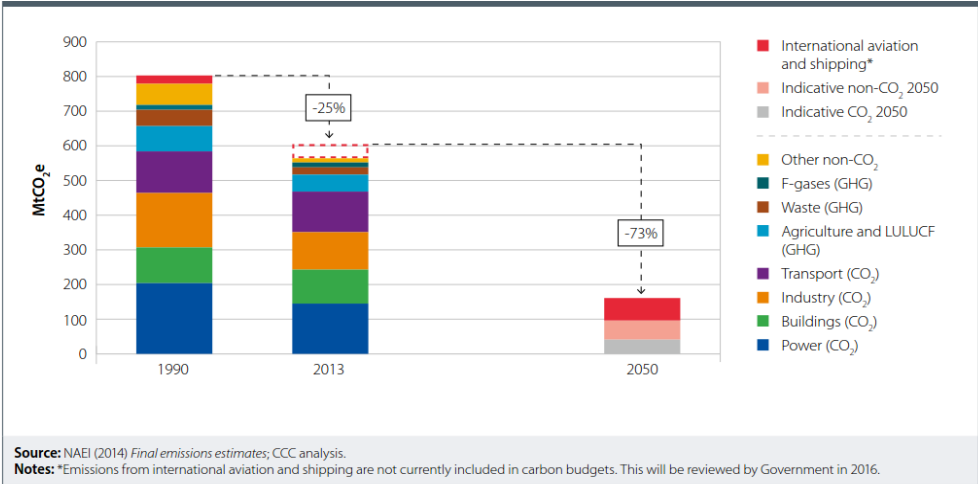


Figure 6.3: Greenhouse gases by sector 1990-2050<sup>111</sup>

6.9 The Carbon Plan includes a number of measures that affect the minerals and waste sectors directly. The minerals sector has engaged with the *Strategy for Sustainable Construction*<sup>112</sup>, which is increasing the use of recycled aggregates and reducing the disposal of construction waste to landfill. The Mineral Products Association quotes significant reductions in the carbon emissions per tonne of cement, partly achieved by the use of waste for energy generation and has created a Carbon Reduction Portal<sup>113</sup> for use by the industry.

6.10 British Gypsum completed one of the early Climate Change Agreements between the Government and energy intensive industries. A new rail delivery service to transport finished products from the Kirkby Thore plaster and plasterboard plant to customers in Scotland, removed an estimated 1.76 million lorry miles per year from the road network<sup>114</sup>. Supplies to the Kirkby Thore plant are now also imported by rail.

6.11 Measures affecting the waste sector have been important in the overall strategy, even though in 2012 waste management accounted for only 3.8% of UK greenhouse gas emissions<sup>115</sup>. This is because reducing waste and increasing recycling has an impact on emissions from every sector, and

<sup>111</sup> Evidence Base document reference ND154: “Meeting Carbon Budgets: 2014 Progress Report to Parliament”, Committee on Climate Change, July 2014 (Executive Summary, page 21)  
<sup>112</sup> Evidence Base document reference ND132: Strategy for Sustainable Construction, BERR, June 2008  
<sup>113</sup> <http://www.aggregatecarbonreduction.com/>  
<sup>114</sup> <http://www.buildingdesign-news2008.co.uk/2008/25-British-Gypsum-Plaster-Plasterboard-and-Drylining-Systems-News-230608.asp>  
<sup>115</sup> Evidence Base document reference ND125: Table 6, 2013 UK Greenhouse Gas Emissions Provisional Figures, DECC, March 2014

because of the methane emitted from biodegradable waste. In Cumbria, it has been estimated that 2.6% of total emissions are from waste management, combined with water supply and sewage<sup>116</sup>.

- 6.12 The Government's Waste Review published in June 2011 was followed in December 2013 by the Waste Prevention Plan<sup>117</sup>, which continues to progress policies such as the landfill tax and progressive restrictions on the disposal to landfill of specific waste types.
- 6.13 These policies have had considerable success and the Committee on Climate Change noted a 55% reduction of greenhouse gas emissions from the waste sector from 1990 to 2013<sup>118</sup>. This was due to a combination of factors, including improvements in the standards of landfilling, changes to the types of waste going to landfill (such as reducing the amount of biodegradable waste) and an increase in the amount of landfill gas being used for energy.
- 6.14 Progress made between 2007 and 2013 indicates that the minerals and waste sectors have already made significant reductions in the greenhouse gas emissions arising from their activities. The Mineral Products Association has shown the sector's commitment to contributing to both mitigation and adaptation, and provides useful advice for its members for the implementation of current best practice.
- 6.15 Major reductions in emissions from the waste sector have related to better landfill techniques, reduction of landfill volumes and diversion of biodegradable waste, as well as improved capture and utilisation of methane for energy generation. However, the development of the circular economy, promoted by WRAP (Waste and Resources Action Programme) and supported by the industry body Environmental Services Association, considers the whole life cycle of products, and may change how products are designed and recycled, promising further reductions in waste and energy use.
- 6.16 As a result of both cost pressures and Government policies directed to industries, it is expected that this potential for resource efficiency will be increasingly realised, and minerals and waste management processes and technologies will develop to enable further reductions in greenhouse gas emissions.
- 6.17 The Environmental Services Association also estimates that the waste management industry within the UK provides a third of the country's renewable electricity<sup>119</sup>. The Government has encouraged the development of renewable energy, including from waste, by the use of financial incentives, thus the use of planning policies to require energy generation within developments, is no longer encouraged. However, there is considerable potential for energy generation from waste in Cumbria; animal biomass alone

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<sup>116</sup> Evidence Base document reference LD211: The greenhouse gas footprint of Cumbria, Small World Consulting Ltd, September 2012

<sup>117</sup> Evidence Base document reference ND117: Waste Prevention Plan, Defra, December 2013

<sup>118</sup> Evidence Base document reference ND154: 2014 Report to Parliament, Committee on Climate Change

<sup>119</sup> [http://www.esauk.org/esa\\_policies/carbon\\_management/](http://www.esauk.org/esa_policies/carbon_management/)

(slurry and manure) could provide up to 90 MW and sewage gas a further 4.9 MW<sup>120</sup>.

- 6.18 Cumbria County Council took part in an EU project to investigate potential for increased energy from waste development, and a Policy Tool and Cumbria Action Plan<sup>121</sup> were produced. Much of the potential highlighted has been realised, with the growth in both domestic and commercial use of biomass boilers absorbing suitable supplies of waste wood, and the development of a number of anaerobic digestion plants across the county utilising agricultural feedstocks, including slurry and manure. The Policy Tool<sup>122</sup> focused largely on municipal waste, which in Cumbria is now managed at two MBT plants that generate Refuse Derived Fuels (RDF). No energy from waste plants, with the ability to utilise these fuels, have yet been developed in Cumbria and the RDF is exported to plants in the UK and Europe. A number of commercial energy from waste plants have been proposed in the county, and the need for sites is discussed in chapter 3 of this Local Plan.
- 6.19 The emission of greenhouse gases from peat bogs is a significant issue for Cumbria. The North Pennines AONB, part of which crosses into the east of the county, contains 900m<sup>2</sup> of peat bog, which fulfils an important role as a “carbon sink”. Lowland peat bog in the north of the county has historically been worked for horticultural peat but one of the sites is now under restoration. Degraded, eroded or drained peatlands emit almost 6% of global anthropogenic CO<sub>2</sub> emissions and represent almost 25% of emissions from the entire land use, land use change and forestry sector. Rising temperatures constitute a serious threat to the vast amounts of carbon sequestered in peat bogs and protection and restoration of peat bogs to halt emissions and increase carbon sequestration is an important policy goal. The Peatland Programme (formerly “Peatscapes”) is working successfully to restore degraded peat bog in the North Pennines AONB, which also has benefits for biodiversity, flood control and water quality.
- 6.20 In addition to measures targeted on specific sectors of the economy, the Government’s Carbon Plan includes measures to be implemented by Local Authorities, both as planning authorities and under other statutory duties. For the purposes of this Plan, the key measures are laid down in the National Planning Policy Framework (NPPF) and the accompanying Planning Practice Guidance suite (PPG).
- 6.21 In its role as local planning authority, the County Council is not required to measure and monitor emissions themselves, but to conform to the NPPF by adopting proactive strategies to mitigate and adapt to climate change, in line with the objectives and provisions of the Climate Change Act 2008<sup>123</sup>. PPG further states that in addition to the statutory requirement to take the Framework into account in the preparation of Local Plans, there is a statutory

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<sup>120</sup> Evidence Base document reference RD22: Cumbria Renewable Energy Capacity and Deployment Study, Cumbria County Council, Aug 2011

<sup>121</sup> Evidence Base document reference LD213: Interreg IVc Action Plan, 2012

<sup>122</sup> Interreg IVc, Final Policy Tool, October 2011

<sup>123</sup> <http://www.legislation.gov.uk/ukpga/2008/27/contents>

duty<sup>124</sup> on local planning authorities to include policies in their Local Plan designed to tackle climate change and its impacts<sup>125</sup>.

- 6.22 In addition to this role, the County Council also has wider responsibilities as the Lead Local Flood Authority, and has produced its Preliminary Flood Risk Assessment<sup>126</sup> and a Surface Water Management Plan. The Council is also required to reduce emissions from its own estate and activities, and respond to the challenges of climate change and extreme weather events. Therefore, the County Council signed up to a non-mandatory programme called “Climate Local”, which is designed to support and run alongside statutory reporting duties such as those contained in the Climate Change Act, Civil Contingencies Act and Flood and Water Management Act. The programme is designed to develop resilience, address fuel poverty, protect homes and businesses from flooding and other extreme weather events, and assist the local economy to benefit from renewable and other “green economy” options.

### **Where we need to be**

- 6.23 Section 10 of the NPPF explains the key role planning has in meeting the challenge of climate change, flooding and coastal change by minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. The NPPF further states that this is central to the economic, social and environmental dimensions of sustainable development.
- 6.24 PPG lists a range of opportunities to incorporate climate change mitigation and adaptation into Local Plans and these are reflected in the Strategic Objectives of this Plan. Specific opportunities related to minerals and waste include: reducing energy use and transport (Strategic Objective 1); waste minimisation and recycling (Strategic Objective 3); managing waste close to its source; appropriate location of mineral extraction development (Strategic Objectives 4 and 5); prudent use of mineral resources; and encouraging re-use and recycling of minerals (Strategic Objective 6). This Local Plan also needs to ensure that: ongoing reductions in methane emissions from landfill continue; that minerals and waste developments make a significant contribution towards low carbon energy generation and do not adversely impact on greenhouse gas emissions from peat bogs; and that potential for improved flood storage and carbon sequestration in restoration schemes is realised.
- 6.25 The strategic policy for climate change and adaptation (SP13) provides six underpinning principles that are discussed below.
- 6.26 The County Council will require developers to demonstrate that, proportionate to the scale and type of development, energy management, resource efficiency and design have been determining factors for the proposal, and that the proposed solution provides an appropriate balance of energy and resource minimisation, and low carbon energy generation. The choice of technologies and most cost efficient methods for carbon reduction will change over the

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<sup>124</sup> [Section 19 \(1A\) of the Planning and Compulsory Purchase Act 2004](#)

<sup>125</sup> PPG paragraph 003, chapter 6 Climate Change (ID: 6-003-20140612)

<sup>126</sup> Evidence Base document reference RD25: Preliminary Flood Risk Assessment, Cumbria County Council, June 2011

period of this Local Plan, and it would be counter-productive to impose specific requirements at this point in time. It is considered preferable to establish principles by which positive initiatives from industry and communities can be considered and assessed. Evidence should be submitted with a planning application, proportionate to the scale and scope of that development, to show how the development contributes to a carbon reduction strategy, or how the “whole life” emissions of the product or process would be reduced by the proposed development.

- 6.27 Wastewater treatment can require high energy inputs, which reductions in water use can help to decrease. Developments for wastewater treatment are matters for this Plan, but policies to encourage reductions in water use, consequent wastewater volumes and to minimise risks of future water shortages, are more appropriate for District Local Plans. However, minerals and waste developments can both use considerable volumes of water and generate wastewater that requires specific treatment or is returned to public sewers. Where appropriate, minerals and waste developments should, therefore, demonstrate that this is minimised.
- 6.28 The County Council considers that minerals and waste developments should minimise traffic emissions by being optimally located in relation to the area they serve. For waste management facilities this will take into account the sources of the waste and the transport savings that may be realised by co-locating with other waste processes. Locational criteria for strategic waste developments are considered in chapter 3 and some sites allocated in chapter 18. Proposals on additional or alternative sites should demonstrate that they would enable recyclable waste to be sorted and processed close to its point of origin, or otherwise minimise transport emissions.
- 6.29 Minerals can only be worked where they occur and the approach, both in the site allocations chapter and in determining proposals, is to seek to minimise "mineral road miles" by meeting local demand from the nearest geological source or by use of non-road transport. Where the minerals are of regional or national importance, sustainability issues may also be relevant when considering the respective merits of extending an existing quarry compared with the development of a new one.
- 6.30 Policy SP13 also requires that developments that have the potential to remove or degrade peat bog should demonstrate that they will not release significant additional carbon emissions or damage the condition of remaining areas of peat bog. Loss of active peat bog would only be permitted in exceptional circumstances, although robust measures to mitigate for the loss by improving the condition of adjacent or nearby peat bogs would be considered.
- 6.31 The County Council will also seek to ensure increased sequestration of carbon in mineral and waste site restoration and afteruse schemes, through measures such as tree planting or peat restoration. Planting of trees for biofuels on such land could also have carbon benefits, especially where this is land that is unsuitable for other agricultural production. Flood storage to improve resilience and adaptation to climate change is also encouraged and supported where appropriate. Chapter 16 provides further information and detailed



policy on how restoration and afteruse can enhance or create habitats for species threatened by changing climates.

- 6.32 Policy SP13 expresses the County Council's support in principle for generation of low carbon/renewable energy, either from residual waste or on minerals and waste sites where they would not adversely impact on the operations or restoration of the site. The assessment criteria for energy from waste facilities and other proposals are addressed in policies DC7 and DC8 in chapter 13.

**POLICY SP13 Climate change mitigation and adaptation**

Proposals for minerals and waste management developments should demonstrate that:

- proportionate to the scale and type of development, energy management, carbon reduction and resource efficiency have been determining design factors for the development; and
- water use and the requirement for wastewater treatment have been minimised; and
- their location will minimise, as far as is practicable, the "minerals or waste road miles" involved in supplying the minerals or managing the wastes, unless other environmental/sustainability and, for minerals, geological considerations override this aim; and
- where the development affects or is adjacent to peat bog, that carbon emissions would not be significantly increased and the condition of remaining peat bog would not be adversely affected; and
- where appropriate, restoration and afteruse proposals fulfil a role in helping to mitigate for or adapt to climate change.

Proposals for low carbon renewable energy will be supported where they conform to other relevant policies in this Plan and either:

- a. use residual waste as part of the feedstock; or
- b. are located within a proposed or existing mineral or waste site and do not have unacceptable impacts on the operations, restoration or aftercare of the site.

- 6.33 Additional policies that support the measures in SP13 and make a positive contribution to reducing greenhouse gas emissions are included elsewhere in the Plan, as shown in Table 6.1.

<b>Measures</b>	<b>Policies</b>
Continue to require landfill gas collection and management systems that, wherever practicable, use the gas to generate electricity	DC10
Identify sufficient sites in suitable locations for bio-degradable waste streams to be diverted from landfill	SAP2
Identify sufficient sites in suitable locations for recyclable waste to be sorted and processed close to their point of origin, and for minerals to be worked or recycled/reused close to their point of origin	SAP2 SAP4
Encourage minerals and waste developments to locate optimally in relation to their source/markets	DC1
Secure woodland planting and flood storage in restoration schemes	DC19 DC22
Minimise loss of sequestered carbon in peat bogs	SP12
Safeguard existing and potential rail and wharf facilities	SAP5
Identify positive criteria for assessment of Energy from Waste proposals	DC7
Identify positive criteria for assessment of renewable energy proposals on minerals and waste sites	DC8

Table 6.1: Other measures in the Plan to address climate change

## **7. ECONOMIC AND COMMUNITY BENEFITS**

### **Background**

- 7.1 The National Planning Policy Framework (NPPF) requires the County Council to play an economic role, in which it must contribute to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time, in order to support growth and innovation. To support economic growth, the Local Plan's main priority is to ensure that we can maintain a reliable and adequate supply of minerals, in order to build and repair our homes, businesses and roads, and also manage our waste effectively and efficiently.
- 7.2 The minerals and waste management industries are essential to the county's and wider economies. In addition to the jobs they provide directly and indirectly, the county's communities and economy could not function without them and the environment would be degraded.

### **Economic benefits**

- 7.3 Bearing in mind the very serious social and economic problems experienced in parts of Cumbria, it is particularly important that best local advantage is taken of investments in minerals and waste management developments. This can include jobs in the construction/development stage, as well as when a development is operational. Attracting new businesses to establish in Cumbria that are associated with existing waste or mineral operations, will also support economic growth and bring benefits to the county.
- 7.4 Whilst recyclables are separated out from waste streams, very little actual waste recycling takes place within Cumbria. There should be development opportunities with potential to "add value" to the Cumbria economy by handling and processing recyclables and compost.
- 7.5 There is scope for local industries to take advantage of reduced energy costs through combined heat and power plants, using fuel that has been derived from waste. Several companies have already expressed interest in using the fuel (Refuse Derived Fuel) that is produced as an end product of the management of the county's municipal waste. To date, none of these proposals have come to fruition, though permission was granted late 2016 for an Energy Recovered Fuel (ERF) facility that, if built, will receive up to 195,000 tonnes of RDF annually, generating 22MW of electricity, that could power the equivalent of up to 45,000 homes.
- 7.6 The Council's engagement with the EU-funded waste to energy project and other information sources, have demonstrated the range of possibilities that there are for regarding discarded materials as a low carbon energy resource rather than as a waste. The techniques and technologies range from "mining" old landfills to anaerobic digestion, gasification, pyrolysis and incineration of residual wastes. End-products can include electricity, heat, synthesis gas, bio-fuels, alternative aggregates and even aviation fuel. Reusing or selling waste as recovered materials represents an economic development opportunity.

- 7.7 The work being undertaken by the Cumbria LEP, as discussed in chapter 2, is providing a framework within which the economy of the county is supported and encouraged to grow. They intend to facilitate investment in key projects, delivery of new homes, the raising of skills levels, the building on nuclear industry strengths and the provision of 100% coverage of superfast broadband.
- 7.8 National planning policy advises local planning authorities to take account of the economic (and other) benefits of Best and Most Versatile agricultural land when considering the location of developments. Poorer quality land should be sought, where practicable, which would protect those economic benefits as well as provide a more sustainable approach to development.
- 7.9 Restored minerals and waste sites may have some economic benefits for the local areas, particularly where such sites are used in the longer term for tourism and recreational uses. The provision of employment and opportunities for inward investment associated with recreation and tourism may be possible in some instances.
- 7.10 Economic benefits could, therefore, include:-
- jobs provided in, or supported by, mineral extraction, processing and utilisation;
  - jobs provided at waste management facilities;
  - jobs provided during the construction or lead-in stages of minerals and waste management developments;
  - enhanced viability of local industries through supply chain benefits and due to reduced fuel costs by using combined heat and power energy from waste plants;
  - recovery of waste for re-use;
  - protection of Best and Most Versatile agricultural land;
  - restoration to tourism or recreation afteruses.
- 7.11 Policy SP14 seeks to optimise economic benefits, which implies a balancing exercise with other interests, including environmental and social. However, there is no intent to place economic benefit before other interests, where this is not practicable. For example, as minerals can only be worked where they are found, there should be no conflict between identifying Mineral Safeguarding Areas and achieving economic benefit. In some instances, it may be necessary to consider the overall economic impact of mineral or waste proposals.

**POLICY SP14 Economic benefit**

Proposals for new and time or physically extended minerals and waste developments should demonstrate how they would realise their potential to provide economic benefit. This may include such matters as the number of jobs directly or indirectly created or safeguarded and the support that proposals give to other industries and developments.

Relevant adverse economic impacts on other industries, or on regeneration and development initiatives, will be weighed against the overall economic benefits of the proposal.

## Community benefits

- 7.12 A Community Benefit, as defined by the Nuclear Legacy Advisory Forum, is “a payment in money or in kind to a local community in recognition and/or reward for hosting a development that, whilst delivering national benefits, imposes a particular environmental, financial or other burden upon the locality where it is sited”<sup>127</sup>.
- 7.13 It is a voluntary contribution by a developer to support a community, whether that be a village, town, city or other area, affected by a development. In this circumstance, the County Council would expect developers to offer a Community Benefits package to the affected host community, in order to positively contribute to the sustainable development of their area and to the well-being of its population. The County Council expects that proportionate benefits packages should be secured; as the package would relate to a minerals or waste development, it is most likely that the County Council would lead on negotiations, but there would certainly be consultation with the other relevant Cumbrian local authorities.
- 7.14 Historically, such off-setting packages of community benefits have been considered only in the context of the nuclear industry, but they are equally relevant for mineral, waste management and renewable energy developments. Where appropriate, the County Council will also seek to secure Community Benefits through Nationally Significant Infrastructure Projects on which it is consulted.
- 7.15 Community benefits schemes are separate from the planning process; they are not a material planning consideration and will not be taken into account by the County Council during the planning application process. Any Community Benefits package will be in addition to any mitigation secured through a legal agreement (e.g. s106 or s278 Agreements).
- 7.16 The County Council can provide advice on who is best placed to receive a Community Benefits package, and any community benefits that are secured will be set out in the County Council’s Minerals and Waste annual Authority Monitoring Reports.

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<http://www.nuleaf.org.uk/wp-content/uploads/2014/04/Briefing-Paper-26-Community-benefits-position-paper-and-framework.pdf>

## 8. ENVIRONMENTAL ASSETS

### Background

- 8.1 Cumbria is richly endowed with fine landscapes, geology, wildlife, buildings and features of archaeological and historic importance. These resources are valuable environmental assets that underpin the tourism industry, attract business and investment into the area, create jobs, engage people through volunteering or undertaking recreation and hobbies, improve the attractiveness of places and contribute to the improved health and well-being of people as well as the quality of life of local communities.
- 8.2 Environmental conservation can also generate significant economic activity. The health of the ecosystem is of vital importance to everyone, it provides outputs or outcomes that directly and indirectly affect human well-being. These services that benefit people, which are provided by the natural environment, are known as ecosystem services (see Glossary).
- 8.3 The benefits that arise from the ecosystem are wide ranging. For example, the formation of a range of soil types will influence whether crops can be grown to feed people and their farmed animals or if 'wild food' grows naturally that supports wild animals (some of whom are eaten as game) and invertebrates, such as bees, who are vital to pollinate crops. Other examples of benefits provided by the ecosystem are: minerals, which are used to build our roads and homes; raw materials, such as timber or animal skins; energy, in the form of hydropower or biomass fuel; areas of peat, which are important for carbon storage and sequestration; flood regulation, in the form of floodplains; and recreational, health or educational benefits.
- 8.4 A number of projects in Cumbria have been or are being undertaken, which seek to assess, conserve or enhance particular ecosystem services in the county. The Coast to Coast Bee Roads Project, part of the wider B-Lines Initiative run by Buglife, is developing a UK-wide network of wildflower-rich meadows and grasslands by linking existing bee and other insect pollinator 'motorways'. The project is being taken forward in partnership with the Cumbria Local Nature Partnership<sup>128</sup> and will help to support and protect the many pollinating insects that contribute to our food production and the diversity of our environment.
- 8.5 In December 2009, Cumbria County Council and Natural England commissioned an analysis of the Bassenthwaite catchment area as a case study<sup>129</sup> in the role of ecosystem services and green infrastructure in economic development, regeneration and growth in Cumbria. The results of the study are applicable to all of Cumbria's rural communities, not just Bassenthwaite. For example, more effective relationships between tourism infrastructure and environmental projects could deliver higher value activity, such as quality hotels, shops, food and drink, and experiences that are capable of sustaining higher value employment. The economic challenge for landscape and biodiversity is to turn these assets into experiences that people want to take part in and spend money on.

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<sup>128</sup> <https://www.buglife.org.uk/b-lines-hub/coast-to-coast-bee-roads-project>

<sup>129</sup> Evidence Base document references LD302 and LD303: Bassenthwaite Vital Uplands programme

- 8.6 There have also 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, 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 and the Heritage Coast. The study that was produced<sup>130</sup> identifies areas of potential future aggregate extraction from the Local Plan work, and provides a more detailed information base for the heritage resource within these areas, to enable the county's rich heritage assets to be understood better and to be prioritised.

### **Source data**

- 8.7 At the international or European level, bodies such as the United Nations Educational, Scientific and Cultural Organisation (UNESCO) or the European Union (EU) designate heritage, geodiversity and biodiversity assets in the UK. These are then notified, managed or data held by national organisations: the remit of Natural England covers nature and wildlife conservation, plus landscape protection, whilst Historic England is responsible for cultural and built heritage.

### *Biodiversity*

- 8.8 Under the EU Habitats Directive, European Wildlife Sites were designated to protect threatened or valuable habitats and species, whilst internationally important wetlands were designated under the Ramsar Convention. Collectively termed Natura 2000 sites, their Conservation Objectives are maintained and updated by Natural England.
- 8.9 Natural England also maintain and update the (single) Conservation Objective for Marine Conservation Zones and are responsible for notifying Sites of Special Scientific Interest (SSSIs). They formally designate Areas of Outstanding Natural Beauty (AONBs) and define Heritage Coasts in agreement with the relevant maritime local authorities. Standing advice is provided jointly by Natural England and the Forestry Commission on ancient woodland and veteran trees.
- 8.10 The majority of National Nature Reserves are managed by Natural England (in Cumbria, a very small minority are managed by the National Trust or Cumbria Wildlife Trust) and the relevant data is held on their website. Information on Local Nature Reserves is hosted by them, but they are managed by a range of organisations in Cumbria, including the District Councils, the County Council and National Park Authorities. There are also a number of RSPB-managed reserves, specifically for their bird interest.

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<sup>130</sup> Evidence Base document reference LD310: Terrestrial Mineral Resource, Cumbria: Assessment Report, Oxford Archaeology North/English Heritage/Cumbria County Council, February 2015

- 8.11 At the local level, the Cumbria Biodiversity Data Centre<sup>131</sup> has the detailed representation of current knowledge of Cumbria's biodiversity. Its evidence base includes species and habitat statements, habitat targets, planning considerations and enhancement opportunities. Further work for the biodiversity evidence base will include identifying the networks of natural habitats required by national policies, mapping biodiversity opportunities and defining the landscape features that are of major importance for migration, dispersal and genetic exchange. This is an iterative process that will continue to inform the policy and thus any necessary updates.
- 8.12 Extensive lengths of rivers and of coast comprise some of the most important wildlife sites within the county. A characteristic of these is that the notified site often does not include crucial areas of adjacent land. However, some associated areas that are important to species, especially birds, have been identified and these include goose/swan flyways. The above work on habitat networks will be particularly important to address this issue.
- 8.13 There is a Key Species list for Cumbria<sup>132</sup> 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. Further work is continuing to relate these species to appropriate habitat types, functional ecological networks and to geographic areas of the county.
- 8.14 Projects in Cumbria continue to inform the Cumbria Biodiversity Evidence Base, increasing the knowledge of habitats and species, especially those under threat. Nature Improvement Areas (NIA) were established by Government in April 2012, as a 3-year project to create joined up and resilient ecological networks at a landscape scale. The Morecambe Bay limestones and wetlands NIA programme was progressed by Morecambe Bay Local Nature Partnership, with Arnside & Silverdale AONB Partnership acting as the lead. The final report for this project was delivered in January 2016 and, although there will be no new direct funding, the partners are meeting the challenge of maintaining the delivery of improvements to 2020, by use of the Heritage Lottery Fund landscape scheme and the Countryside Stewardship Facilitation Fund.
- 8.15 The Cumbria Local Nature Partnership is leading on work in West Cumbria for the Small Blue Butterfly Conservation Network<sup>133</sup>, progressing a Conservation Strategy for this declining species. The butterfly is restricted to small, localised colonies in the coastal strip, mainly on naturalised brownfield land, which is often under threat from regeneration. It needs high quality core habitat areas and connected habitat corridors, which are considerations that could be built into development proposals.
- 8.16 The Cumbria LNP published their Strategy<sup>134</sup> in 2015, which is designed to help identify priorities, set measurable targets, monitor progress and widen

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<sup>131</sup> <http://data.nbn.org.uk/organisation/organisation.jsp?orgKey=10700>

<sup>132</sup> <http://www.lakelandwildlife.co.uk/biodiversity/keyspecies.aspx>

<sup>133</sup> a voluntary network of Local Authorities, conservation organisations and local businesses

<sup>134</sup> Evidence Base document reference LD301: Cumbria Local Nature Partnership Strategy 2015 - 2020, Cumbria LNP Board, January 2015



the Partnership's impact. An action plan is under development, containing a list of priorities and the resources associated with their delivery.

### *Geodiversity*

- 8.17 The European Geoparks Network was created with the support of the EU and in co-operation with UNESCO in 2000. In 2003, the North Pennines AONB became the first area in Britain to be awarded the status of European Geopark, where special effort is made to make the most of its geology (or Earth heritage) through interpretation, education, conservation and nature-based tourism.
- 8.18 Local Geological Sites (LGS), previously known as Regionally Important Geological and Geomorphological Sites (RIGS), are currently the most important places for geology and geomorphology outside statutorily protected land, such as SSSI's, and are equivalent to local wildlife sites and other non-statutory wildlife designations. These sites started life as SSSI's, but were denotified during the Geological Conservation Review<sup>135</sup> by the Joint Nature Conservation Committee (JNCC). Cumbria GeoConservation Group, an affiliated member of UK RIGS and a special interest group of Cumbria Wildlife Trust, is a voluntary geological conservation group that records, monitors and reviews LGS in the county. They also set out a Local Geodiversity Action Plan<sup>136</sup>, with the aim of "Conserving, enhancing and managing the region's geological heritage and diversity for the benefit of all".
- 8.19 At the local level, Limestone Pavement Orders (LPO) were designated by the Local Authority, based on information provided by Natural England. Information and mapping regarding each LPO is hosted on the Natural England website.

### *Historic environment*

- 8.20 UNESCO's World Heritage Committee decides which places can be considered of outstanding universal value to humanity and then designates worthy World Heritage Sites. Historic England is responsible for managing those World Heritage Sites that are situated in England, and information is hosted on the Historic England website. The organisation also maintains the registers of listed buildings, historic parks and gardens, registered battlefields and scheduled monuments (formerly scheduled ancient monuments). Conservation Areas are designated and managed by the Local Authorities.
- 8.21 At the local level, the Cumbria County Historic Environment Record (HER) is a database of all known archaeological sites and monuments for the county, outside the areas of the National Parks. The database contains over 20,000 records, linked to a GIS interface. The HER (formerly the Sites and Monuments Record or SMR) has been maintained by Cumbria County Council since the mid-1970s. The database was computerised between 1983 and 1985, and has been expanded significantly since that time. Maintenance of an HER is required by paragraph 169 of the National Planning Policy Framework.

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<sup>135</sup> <http://jncc.defra.gov.uk/page-2947>

<sup>136</sup> Evidence Base document reference LD160: Cumbria Local Geodiversity Action Plan, 2009

## *Landscape*

- 8.22 In order to reflect the principles of the European Landscape Convention<sup>137</sup>, Cumbria County Council, in partnership with the Cumbrian Local Planning Authorities, prepared the Cumbria Landscape Character Guidance and its associated Toolkit<sup>138</sup>. The Guidance contains a landscape character assessment, which maps, classifies and describes the elements and features that characterise the different landscape types across the county, setting out what makes the landscape distinctive now. It acknowledges that landscapes are dynamic and have been, and will continue to be, shaped by natural and man-made forces and actions. It also includes a series of guidelines to help encourage and plan action that will protect, manage, enhance, restore and create landscapes that will be able to adapt to change over time but still retain the characteristics that make them distinctive. The Landscape Character Toolkit provides detailed advice on applying the Cumbria Landscape Characterisation Assessment.
- 8.23 Cumbria's historic landscape is varied and greatly appreciated; its characterisation can be used to inform the preparation of the county's future strategies for the historic environment, landscape and sustainability. It is a useful tool when undertaking environmental assessment at the strategic level to inform minerals planning policies. In partnership with the Lake District National Park Authority, a programme of work sponsored by English Heritage (now Historic England) was undertaken to map the elements of Cumbria's historic landscape. The result was a series of interactive GIS-based maps that characterise the distinctive, historic dimension of today's environment in Cumbria and an associated handbook<sup>139</sup>.

## *Marine environment*

- 8.24 The Marine and Coastal Access Act 2009 allowed the creation of Marine Conservation Zones (MCZ's). The Marine Conservation Zone Project, to identify and recommend MCZ's to Government, was led by the Joint Nature Conservation Committee and Natural England. MCZ's protect a range of nationally important marine wildlife, habitats, geology and geomorphology, and can be designated anywhere in English and Welsh territorial and UK offshore waters. To date, three MCZ's have been designated for Cumbria – West of Walney (off Barrow), Allonby Bay (Allonby to Maryport) and Cumbria Coast (Whitehaven to Drigg).

## **Environmental assets**

- 8.25 This Local Plan identifies Cumbria's environmental assets (see Boxes 8.1 and 8.2), in order to recognise their extent and significance to the planning system in Cumbria. They include assets that have been formally designated in accordance with international, European and national legislation and others that are identified for their regional or local importance. In order to identify

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<sup>137</sup> [http://www.coe.int/t/dg4/cultureheritage/heritage/Landscape/default\\_en.asp](http://www.coe.int/t/dg4/cultureheritage/heritage/Landscape/default_en.asp)

<sup>138</sup> Evidence Base document reference LD196: Cumbria County Council, March 2011

<sup>139</sup> Guide to Using the Cumbria Historic Landscape Character Database for Cumbria's Planning Authorities, Cumbria County Council, July 2009: <http://www.cumbria.gov.uk/planning-environment/countryside/historic-environment/histlandcharacter.asp>

those assets that are of particular county importance, reference has been made to the relevant databases, as described above.

#### **BOX 8.1**

**The areas, features and, where appropriate, their settings, located wholly or partly within Cumbria (outside the Lake District and Yorkshire Dales National Parks) that are formally identified as being of national, European and international importance are:-**

- internationally important Wildlife Sites (**Ramsar sites, Special Areas of Conservation and Special Protection Areas**) - Upper Solway Flats and Marshes/Solway Firth; South Solway Mosses; Border Mires, Kielder and Butterburn; Irthinghead Mires; Duddon Estuary; Duddon Mosses; Drigg Coast; Asby Complex; North Pennine Moors; Morecambe Bay; Morecambe Bay Pavements; Walton Moss; Clints Quarry; Cumbrian Marsh Fritillary Site; Helbeck and Swindale Woods; Lake District High Fells; Moor House - Upper Teesdale; North Pennine Dales Meadows; River Derwent; River Ehen; River Eden; River Kent; Tyne and Nent; Roudsea Wood and Mosses; Bolton Fell Moss;
- **World Heritage Sites** - "Frontiers of the Roman Empire: Hadrian's Wall" and its visual impact zone; The English Lake District;
- **European and Global Geopark** – North Pennines;
- **Areas of Outstanding Natural Beauty** - Solway Coast; Arnside and Silverdale; and North Pennines;
- **Heritage Coast** - St Bees Head;
- the settings of the Lake District, Yorkshire Dales and Northumberland National Parks;
- **Sites of Special Scientific Interest**;
- **Marine Conservation Zones** – West of Walney; Allonby Bay; Cumbria Coast;
- **Nature Improvement Area** – Morecambe Bay limestones and wetlands;
- **National Nature Reserves** – Clawthorpe Fell; Cliburn Moss; Drumburgh Moss; Duddon Mosses; Finglandrigg Woods; Gowk Bank; Great Asby Scar; Hallsenna Moor; High Leys; Hutton Roof; Moor House-Upper Teesdale; North Walney; Roudsea Wood and Mosses; Sandscale Haws; South Solway Mosses; Thornhill Moss and Meadows; Walton Moss;
- statutorily protected wildlife species;
- habitats and species of principal importance that are included in the England Biodiversity List (published by the Secretary of State under Section 41 of the Natural Environment and Rural Communities Act 2006) and in the UK Biodiversity Framework (Action Plan);
- **ancient woodlands**;
- **Limestone Pavements** protected by Orders;
- nationally important archaeological sites whether designated as **Scheduled Monuments** or not;
- **Registered Historic Battlefield** – Solway Moss;
- **Registered Historic Parks and Gardens** – Appleby Castle; Corby Castle; Dallam Tower; Dalston Road Cemetery; Holker Hall; Hutton-in-the-Forest; Levens Hall; Sizergh Castle; Workington Hall;
- **listed buildings**.

## **BOX 8.2**

**Wildlife, geological, geomorphological, landscape and historic environment areas and features that are of particular importance for the county, or which make a contribution to biodiversity, geological, landscape and historic conservation include:-**

- Local Nature Reserves – Cowraik Quarry; Harrington Reservoir; Holme Park Quarry; Kingmoor Sidings; Millom Ironworks; Siddick Pond;
- RSPB Nature Reserves – Campfield Marsh; Geltsdale; Hodbarrow; St Bees Head;
- Local Sites (these are County Wildlife Sites and Local Geological Sites);
- Cumbria Biodiversity Framework (Action Plan) habitats and species and additional ones of conservation importance for the North West that occur within Cumbria;
- areas of regional or local importance identified by the Local Nature Partnerships;
- Cumbria Geodiversity Action Plan sites;
- Conservation Areas and their settings;
- landscape attributes and features essential to local landscape character;
- landscape features of major importance for wild flora and fauna that are essential for migration, dispersal and genetic exchange and which encourage the protection, conservation and expansion of the general ecological fabric (i.e. habitat networks, wildlife corridors, stepping stones, sites, etc.);
- soil resources, including best and most versatile agricultural land
- veteran and other substantial trees, hedgerows and woodlands;
- lakes, tarns and rivers;
- undeveloped coast;
- locally listed archaeological sites, monuments, buildings and their settings.

## **Strategy and development principles**

- 8.26 Legislation places duties on the County Council to protect and enhance the natural and historic environment, which needs to be reflected in this Plan. Examples include Section 85 of the Countryside and Rights of Way Act (2000), which places a duty on the Council to conserve and enhance the natural beauty of an AONB, or Section 40 of the Natural Environment and Rural Communities Act (2006), which places a duty on the Council to consider how to conserve biodiversity in all their actions. In the context of minerals and waste management developments, it is vital that people's quality of life and the environmental assets and their settings are protected; policies are needed that attach appropriate levels of protection to them. Government revoked the North West Regional Spatial Strategy (RSS) in April 2013. Its former Policy EM1 – 'Integrated enhancement and protection of the Region's environmental assets', set out details on how environmental assets in the North West of England should be identified, protected, enhanced and managed, with particular regard to (A) landscape, (B) the natural environment, (C) the historic environment and (D) trees, woodlands and forests. This valuable policy sought a "step change" to increase the North West's biodiversity resources. It

has, therefore, been necessary to consider how the revoked policy should be reflected in this Local Plan.

- 8.27 The spatial objectives and priorities of the former policy fall within the responsibility of the District Councils and will mainly be delivered through their Local Plans, which have a wider remit than this Minerals & Waste Local Plan. However, aspects of the policy that relate to conserving and enhancing areas, sites, features and species are relevant to this Plan and have been incorporated into strategic policy SP15 and the relevant Development Control policies.

### **Opportunities**

- 8.28 Cumbria is already favoured with an exceptionally high quality natural environment. Nevertheless, there are still many opportunities for enhancing, expanding and linking wildlife sites and enhancing the general ecological fabric. This was recognised in the identification of the Morecambe Bay limestones and wetlands Nature Improvement Area (NIA)<sup>140</sup>, which was the only NIA identified in the north of England.
- 8.29 Quarries and landfill sites can offer significant opportunities to deliver sustainability objectives. The Nature after Minerals<sup>141</sup> initiatives focus on former workings, but it is not just those that are important; some of the working quarries in Cumbria have demonstrated very successful enhancement of wildlife habitats. Several active quarries are particularly important as habitats for great crested newts and botanically rich vegetation has naturally regenerated on some of the limestone quarry waste tips. Successful maintenance and further enhancement of some of these habitats is much easier and more likely to happen whilst a quarry is working than when it is closed.
- 8.30 Working quarries can offer invaluable opportunities to geologists, amateur and professional, to gain access to fresh rock faces in order to provide better understanding of the processes that formed different rock types and features, as well as their enhanced interpretation. Disused quarries are of great value as geological conservation sites. LGS sites in Cumbria are situated in both working and disused quarries. Millom Rock Park is located next to Ghyll Scaur Quarry and has an excellent viewing vantage over the quarry. The Park was funded from a number of sources including the quarry operator, the Aggregate Levy Sustainability Funds of Cumbria County Council, and Natural England; the project was delivered by a committee that included members of the local community. The Park features many large rock specimens from the quarry and from other local sources in Cumbria, complete with interpretations, plus there are schematic descriptions of the quarrying process.
- 8.31 The restoration schemes for quarries and landfill sites can also provide significant opportunities to deliver benefits to ecosystem services. For example, native woodland creation can provide habitat or food for wildlife, it can boost carbon storage, it can lessen soil erosion or the washing of gravel into streams, which in turn may improve water quality and wildlife.

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<sup>140</sup> <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/funding/nia/projects/morecambebay.aspx>

<sup>141</sup> Evidence Base document reference LD48 and <http://www.afterminerals.com/index.aspx>

- 8.32 A study<sup>142</sup> was carried out by Cranfield University, supported by the Mineral Products Association and Nature After Minerals, which researched an ecosystem services approach to quarry restoration. The report shows how such an approach could offer a systematic framework to enhance, structure and communicate the benefits that restored land provides to society. The report makes recommendations to the mineral industry that would further these aims; it would be useful to consider the lessons from the study when in dialogue with quarry operators regarding sustainable restoration schemes.
- 8.33 Cumbria is also favoured with an exceptionally high quality historic environment, the highlights of which are Hadrian's Wall, Long Meg stone circle (second largest in the UK), a number of medieval castles and the county's industrial heritage. To consider the impact of any development proposal on the historic environment effectively, some of these features, such as Hadrian's Wall, will require particular consideration of strategic cross boundary issues, but for all proposals, engagement is undertaken with appropriate conservation, archaeology or urban design colleagues. Taking account of local historic environment issues and priorities, ensures a joined up and robust approach to safeguarding Cumbria's historic assets.
- 8.34 Mineral or waste developments inevitably involve change in the landscape; the nature of this change depends upon how sites are selected, designed and restored. The Cumbria Landscape Character Guidance & Toolkit provides baseline information on landscape character and broad objectives for county character areas, which can be used to inform these processes. The restoration of mineral workings can offer significant opportunities to meet wider goals of enhancing landscape character, such as through the restoration of field boundaries or the expansion of native woodland and natural grassland, as well as increasing access to the countryside.

### **Planning policy**

- 8.35 The National Planning Policy Framework requires local planning authorities to plan for biodiversity at a landscape scale, across local authority boundaries, and to set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged. The NPPF also requires that the planning system recognises the wider benefits of ecosystem services<sup>143</sup>.
- 8.36 Local planning authorities should work with Local Nature Partnerships (LNPs) in ensuring that policies and decisions are based on up-to date data relating to assets and ecological networks. In Cumbria, the three existing LNPs are 'Cumbria', 'Morecambe Bay' and the 'Northern Upland Chain'.
- 8.37 Distinctions are required to be made between the hierarchy of international, national and locally designated sites. This is so that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks.

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<sup>142</sup> Evidence Base document reference ND174: Introducing an ecosystem services approach to quarry restoration, Helen King, Cranfield University, 2013

<sup>143</sup> NPPF, paragraph 109

- 8.38 For the historic environment, local planning authorities are required to set out in Local Plans a positive strategy for the conservation and enjoyment of the historic environment. This requirement is relevant to this Plan, but is most directly relevant to District plans.
- 8.39 The scale of the minerals and the waste management developments, that are likely to be needed or proposed in Cumbria, is relatively small. It should be possible in most cases to avoid major adverse impacts on environmental assets and to focus on enhancement or conservation. There may be exceptions with some minerals, where the geological resource is a major contributing factor to the environmental interest. The Habitats Regulations Assessment identifies potentially sensitive locations in relation to Local Plan policies.

### **Policy approach**

- 8.40 The policy approach in SP15 is not only that development should not result in significant harm to Cumbria's environmental assets, but also that development incorporates the enhancement measures to secure a 'step-change' increase in biodiversity resources that were in RSS Policy EM1(B); this is translated into helping to secure movement from a net loss of biodiversity towards achievement of net gains in biodiversity resources. The policy also incorporates measures relating to green infrastructure that were in revoked RSS Policy EM3. Green infrastructure is defined as the network of green and blue spaces that lies between cities, towns and villages and which provides multiple social, economic and environmental benefits (see Glossary for further information on green and blue spaces).
- 8.41 In order to determine a development proposal, a Habitats Regulations Assessment (HRA) will be required to show that the proposal will not have an adverse effect on the integrity of a European Site, whether located in, adjacent to or on a 'pathway' to the Site. If a particular proposal cannot reasonably be developed on any alternative locations, that would result in less or no harm, adequate mitigation measures should be put in place before development is started. Where significant harm to biodiversity and geological interests cannot be prevented, or adequately mitigated against, appropriate compensation measures will be sought. If significant harm cannot be prevented, adequately mitigated against or compensated for, then planning permission will be refused.
- 8.42 With regard to the historic environment, the approach in policy SP15 is not only that development should not result in harm to an asset's significance, but also to open up the potential for a development to enhance that significance. Although less likely for minerals or waste developments than for County developments<sup>144</sup>, there could be a positive contribution to local character and distinctiveness. However, where a proposed development will lead to substantial harm to, or total loss of, significance of a designated heritage asset, planning permission would be refused, unless it can be demonstrated

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<sup>144</sup> under circular DoE 19/92 and WO 39/92, The Town and Country Planning (Development Plans and Consultation) Directions 1992, 13 July 1992, County developments are "their own development or for developments jointly carried out with another person and for development on local authority-owned land"

that substantial public benefits will outweigh the substantial harm or loss. This approach is carried through to development control policy DC17.

- 8.43 Having taken account of the above matters, the focus of this Plan's policy, in addition to protection, will be to maintain and enhance landscape character, the historic environment, biodiversity and geological conservation interests. The environmental assets include the normal residential and workplace amenities for quality of life, those areas and features listed in Boxes 8.1 and 8.2 and, where appropriate, their settings.

#### **POLICY SP15 Environmental assets**

Minerals and waste management developments, including restoration and afteruse, should:

- protect, maintain and enhance people's overall quality of life and the natural, historic and other distinctive features that contribute to the environment of Cumbria and to the character of its landscapes and places;
- conserve the settings of these environmental assets;
- improve the linkages between these environmental assets and provide buffer zones around them, where this is appropriate;
- realise the opportunities for expanding and increasing environmental resources, including adapting and mitigating for climate change;
- help to secure movement from a net loss of biodiversity towards achievement of net gains in biodiversity resources by protecting, enhancing, expanding and linking areas for wildlife within and between the locations of highest biodiversity resources and encouraging the conservation and expansion of the ecological fabric elsewhere;
- help to create new green infrastructure, and to conserve and manage where it is existing, and enhance its functionality, quality, connectivity and accessibility.

All proposals should also be expected to demonstrate that they include reasonable measures to secure the opportunities that they present for enhancing Cumbria's environmental assets.

Information on environmental assets and guidance on implementing parts of this policy are provided by the Cumbria Landscape Character Guidance and Toolkit, the Guide to using the Cumbria Historic Landscape Character database, the Cumbria Biodiversity Evidence Base and the Cumbria Historic Environment Record.

There are national policies for areas and features that are identified to be of international, European or national importance, as set out below.

#### **Landscape designations**

Major developments that adversely affect the designated areas or the settings of National Parks, Areas of Outstanding Natural Beauty and Heritage Coasts, will only be granted planning permission in exceptional circumstances and where it can be demonstrated that they are in the public interest, in accordance with paragraph 116 of the National Planning Policy Framework.



### **Geodiversity designations**

Major developments that adversely affect the designated areas of Geoparks, will only be granted planning permission in exceptional circumstances and where it can be demonstrated that they are in the public interest, in accordance with paragraph 116 of the National Planning Policy Framework. They shall also incorporate any relevant features of geological interest into an appropriate restoration scheme.

### **Marine designations**

The local planning authority will exercise its functions in relation to Marine Conservation Zones (MCZ) in accordance with the duties placed upon it by the Marine and Coastal Access Act 2009 (paras 125-127). The local authority will seek to exercise its functions in a manner that furthers the achievement of the conservation objectives of the MCZ, or least hinders the achievement of those objectives. Therefore, any major developments that adversely affect any MCZ, will only be granted planning permission in exceptional circumstances and where it can be demonstrated that they are in the public interest, in accordance with paragraph 118 of the National Planning Policy Framework.

### **Ramsar and European Wildlife Sites**

The precautionary principle will be applied to any development proposals affecting these sites and planning permission will be granted only if Habitats Regulations Assessment can determine that a proposal will not have an adverse effect on the integrity of the Site. The only exception is where there are no alternative solutions that would have no (or a lesser) effect and that the development must be carried out because there are imperative reasons of overriding public interest, in accordance with paragraphs 25 to 32 of ODPM Circular 06/2005 (Defra Circular 01/2005).

In accordance with NPPF paragraph 118, this policy also applies to potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites where the Government has initiated the relevant public consultation, and for sites identified, or required, as compensatory measures for adverse effects on European or Ramsar Sites, including the potential, possible or proposed ones.

### **Sites of Special Scientific Interest (SSSI)**

In accordance with paragraphs 56 to 83 of ODPM Circular 06/2005, and the general and overarching duty placed on local planning authorities, to take reasonable steps to further the conservation and enhancement of the features for which sites are of special interest:-

- Planning permission will not normally be granted for development within or outside an SSSI, which is likely to have an adverse effect on it, individually or in combination with other development.
- Exceptions will only be made where the benefits of the development, at the proposed site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs.

## **Heritage designations**

In general, development proposals that substantially harm or totally destroy the Outstanding Universal Value of a World Heritage Site, or the significance of a designated heritage asset, or their settings, will only be granted planning permission where it can be demonstrated that they are necessary to achieve substantial public benefits that outweigh the harm or loss (in accordance with NPPF paragraph 133).

Where development proposals cause less than substantial harm to the Outstanding Universal Value of a World Heritage Site or the significance of a designated heritage asset, or their settings, the harm will be weighed against the public benefits of the proposals (in accordance with NPPF paragraph 134).

## **Environmental assets not protected by national, European or international legislation**

Where not otherwise protected by national, European or international legislation, great weight will be given to conserving habitats and species of principal importance and irreplaceable habitats. In accordance with NPPF paragraph 118, planning permission will be refused for development resulting in the loss or deterioration of irreplaceable habitats unless the need for, and benefits of, the development in that location clearly outweigh the loss.

Permission will not be granted for development that would have an unacceptable impact on the environmental assets, on its own or in combination with other developments, unless it is demonstrated that:-

- there is an overriding need for the development, and
- it cannot reasonably be located on any alternative site that would result in less or no harm, and then,
- the effects can be adequately mitigated, or if not,
- the effects can be adequately and realistically compensated for through offsetting actions.

Where not otherwise protected by national, European or international legislation, the effect of a development proposal on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect, directly or non-directly, non-designated heritage assets, a balanced judgement will be required, having regard to the scale of any harm or loss and the significance of the heritage asset. Non-designated heritage assets of national importance are treated as designated assets.

## **9. RESTORATION, AFTERCARE AND AFTERUSE**

- 9.1 Restoration and aftercare schemes for mineral working and waste management sites, such as landfills, provide opportunities to secure the increase in biodiversity resources that is required by policy SP15. Such schemes should help to deliver Biodiversity Framework (Action Plan) objectives; should take account of the key habitats and species lists; the Cumbria Landscape Character Toolkit; functional ecological networks and of associated guidance. The ecological frameworks and networks will be developed in District Local Plans.
- 9.2 In addition to biodiversity, there can be other important restoration objectives, such as landscape enhancement, flood risk mitigation, landscape scale conservation and connectivity, access to geological resources and reinstatement of Best and Most Versatile agricultural land. There may also be opportunities where built development is an appropriate and practicable afteruse, which can deliver social and economic benefits. Policy SP16 contains a non-exhaustive list of issues to be considered in restoration, afteruse and aftercare schemes.
- 9.3 Appropriate and thorough restoration may also be needed for some sites to secure the phased restoration of large sites, to address land contamination and secure land stability and to reduce future liability for public safety arising from previous mineral and waste developments. When formulating restoration and aftercare schemes, cross reference should be made to policy SP13 Climate change mitigation and adaptation and to policy SP15 Environmental assets.

### **POLICY SP16 Restoration and aftercare**

Restoration, afteruse and aftercare schemes for mineral working and waste management sites should demonstrate that best practicable measures have been taken to help deliver the sustainability objectives of this Plan. Where appropriate, this should include consideration of the potential for biodiversity, geodiversity and landscape enhancement, flood risk mitigation and water quality, maintaining agricultural land quality, ameliorating contaminated land and securing land stability.

## **10. PLANNING OBLIGATIONS AND COMMUNITY INFRASTRUCTURE LEVY**

- 10.1 Section 106 of the Town and Country Planning Act 1990 makes provision for local planning authorities and developers to enter into planning obligations or undertakings. Their purpose is to secure measures to mitigate the impacts of proposed development which cannot be secured through conditions on a planning permission. The statutory test for a planning obligation is that it can only constitute a reason for granting planning permission if it is:-
- a) necessary to make the development acceptable in planning terms;
  - b) directly related to the development; and
  - c) fairly and reasonably related in scale and kind to the development.
- 10.2 This test is set out in Regulation 122 of the Community Infrastructure Regulations 2010 and is repeated in National Planning Policy Framework paragraph 204. From April 2014, restrictions have also been placed on the local use of planning obligations for pooled contributions towards items that may be funded via the Community Infrastructure Levy (Regulation 123). In some instances, this could impact on the ability to seek planning obligations where five or more schemes are contributing to an infrastructure project or type of infrastructure.
- 10.3 The Community Infrastructure Levy (CIL) came into force in April 2010. It allows local authorities in England and Wales to raise funds from developers undertaking new building projects in their area through a standard charging schedule. The role of CIL is to secure contributions to fund strategic infrastructure that is needed to support the growth of an area.
- 10.4 The responsibility for developing a CIL is a discretionary one and it lies with the District Councils and not with the County Council. It is anticipated that CIL will have limited direct application to most minerals and waste management developments, but there may be overlaps between the types of infrastructure to be funded by the Levy and those required in connection with minerals and waste developments. Examples of the strategic infrastructure and improvements that could be deliverable include road schemes, green infrastructure and flood defence schemes. Where a piece of infrastructure is secured through CIL, a section 106 will not be used for this mitigation measure.
- 10.5 Notwithstanding the emergence of CIL, planning obligations are likely to continue to have an important role in mitigating adverse impacts of minerals and waste management developments.
- 10.6 Where planning obligations or legal agreements are required in order to achieve the necessary control of a development, the following non-exhaustive list sets out a range of the provisions that may be included in a planning obligation:
- highways and access improvements;
  - traffic management measures, including traffic routeing agreements;
  - the undertaking of landscape improvements;

- the implementation of long term monitoring, mitigation and enhancement measures for environmental assets, before, during and after development;
- the provision for archaeological investigation, analysis, reporting, publication and archive deposition;
- the long term restoration and afteruse of sites (including financial guarantees to ensure restoration and long term maintenance is undertaken);
- the provision of, maintenance of, and improvements to the public rights of way network;
- the long term management of, and public access to, sites restored for amenity purposes;
- the off-site monitoring of watercourses, groundwater levels and water supply abstractions;
- the provision of facilities to compensate local communities for the loss of amenity.

10.7 With regard to financial guarantees, they are most likely to apply to new sites rather than physical extensions to existing sites. The use of 'long term' in the policy will need to be considered on a case-by-case basis for each proposal. For example, if a restoration scheme required a site to be restored to agriculture, this may be able to be achieved within five years of operations ceasing at a site; but if a restoration scheme required low nutrient vegetation, perhaps with removal of invasive species such as buddleia, this may not be able to be achieved until ten years after cease of operations.

10.8 In accordance with chapter 27, paragraph 48 of PPG (ID:27-048- 20140306), where an operator is contributing to an established mutual funding scheme, such as the Mineral Products Association Restoration Guarantee Fund or the British Aggregates Association Restoration Guarantee Fund, no financial guarantee, even in the exceptional circumstances set out in Policy SP17, will be sought.

### **POLICY SP17 Section 106 planning obligations**

Where it is not possible to achieve the necessary control or outcome through the use of planning conditions, the County Council will require appropriate mitigation to be secured through Section 106 planning obligations that ensure that development proposals:-

1. secure long term management of relevant environmental assets.
2. only where one of the following exceptional circumstances applies, provide financial guarantees, including with parent companies, where appropriate for restoration works, except where a national industry guarantee fund will remain in place:
  - very long-term new projects, where progressive reclamation is not practicable, such as an extremely large limestone quarry; or
  - where a novel approach or technique is to be used, but the minerals planning authority considers it is justifiable to give permission for the development; or
  - where there is reliable evidence of the likelihood of either financial or technical failure, but these concerns are not such as to justify refusal of permission.
3. provide necessary infrastructure such as highway and transport improvements, flood and surface water management schemes and green infrastructure.

## **11. MONITORING AND ENFORCING PLANNING CONTROL**

- 11.1 The purpose of monitoring and enforcing planning control is to protect people, the environment, the public interest, transport systems and the amenity of the area. The service of formal enforcement notices is a discretionary function, which will only be exercised when it is for the above purposes; it is not to punish offenders for the sake of doing so.
- 11.2 It is Council policy normally not to respond to anonymous calls or letters; this is because it is not possible to respond to the complainant. It is important that complainants receive some sort of response, in order to do justice both to their complaint and, where unfounded or misdirected, the site being complained about. The identity of complainants is kept strictly confidential, so that they may contact the Council with confidence.
- 11.3 The principal planning enforcement effort of the Authority is directed towards avoiding infringements through proactive monitoring; this includes taking account of relevant, written comments made by the general public and consultees during the application process. Whilst remaining proportionate, in general, monitoring effort is directed at those sites that receive the most complaints. It is, nevertheless, inevitable that breaches and offences will occur and the purpose of this policy is to ensure that they are resolved in a consistent, transparent, proportionate and fair manner. Where unauthorised development or breach of conditions occur, the County Council will seek to remedy the injury in the first instance by negotiation and persuasion. This may include inviting retrospective planning applications, in appropriate circumstances.
- 11.4 It is not uncommon for persons committing planning breaches, to give assurances of ceasing activities or carrying out remedial works within reasonable timescales, but thereafter fail to comply with the agreed timescale. In all negotiations and decisions to resolve planning breaches within a particular timescale, or for a planning application to be submitted, the Authority will have regard to a person's history of compliance or otherwise, with planning legislation and any previous informal agreements, without reasonable excuse. As a general rule, very little weight will be given to assurances made by persons who have previously given assurances of compliance, but subsequently have failed to carry out those assurances.
- 11.5 Some Local Authorities have established a Local Enforcement Plan, in line with NPPF, paragraph 207. The Local Enforcement Plan could help Authorities proactively manage enforcement, and should be tailored in a way that is appropriate to their area. This is not a statutory document and, due to the relatively small number of complaints that the County Council receive, it is not considered that one is necessary for minerals and waste developments in the county, at this time. This will be kept under review.

### **POLICY SP18 Monitoring and enforcing planning control**

The County Council, in exercising its function of ensuring compliance with planning control, will:

1. where there is serious harm caused to amenity or potentially irreparable harm to the environment, take practicable immediate action against a breach of planning control to stop further damage;
2. in all other instances, seek to resolve any problems within a reasonable timescale by discussion and negotiation without the need to resort to legal action;
3. only take enforcement action where it is necessary to do so to protect people, the environment, the public interest, transport systems and the amenity of the area, in accordance with the provisions of the development plan;
4. ensure that action is always commensurate with the breach of planning control;
5. give due regard to current legislation, policy framework, instructions, appeal decisions and relevant judicial authority;
6. enable sustainable development to take place, even though it may initially have been unauthorised;
7. maintain the integrity of sites having interests of acknowledged historical or environmental importance and their surroundings;
8. when appropriate, maintain liaison and contact with the general public, and mineral and waste management operators;
9. where a planning application is submitted to address a breach of planning control, only take formal enforcement action in exceptional circumstances, until such time as the application has been determined.



## **PART 2**

### **DEVELOPMENT CONTROL POLICIES**

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## **12. INTRODUCTION**

- 12.1 This section sets out the Development Control Policies of the Cumbria Minerals and Waste Local Plan. These are the policies that are used when planning applications are considered. The Strategic Policies set out what the Local Plan will do; the Development Control Policies must conform to the Strategic Policies and help to deliver those policies and strategic objectives.

### **Purpose**

- 12.2 The purpose of the Development Control Policies is to provide guidance to the public, and to mineral and waste operators, about the issues that will be considered when planning applications for mineral working and waste management developments are submitted. They provide the detailed criteria needed to control and manage minerals and waste developments, for example, relating to individual environmental impacts.
- 12.3 Planning applications should be determined in accordance with the development plan. This will comprise the Cumbria Minerals and Waste Local Plan and the District Council Local Plans, once they have been formally adopted. In addition to the development plan, national policies in the form of the National Planning Policy Framework (NPPF), the National Planning Policy for Waste and the latest Planning Practice Guidance (PPG) are also material considerations for any planning applications or proposals.

### **Conforming to the Strategic Policies**

- 12.4 The Development Control Policies conform to the Strategic Policies, and provide additional detailed criteria to enable the Strategic Policies to be implemented. For most subjects or issues, broad generic policies are all that is required. For others, for example environmental assets, more detailed criteria based policies, which are specific to the subject, are needed in this Plan, in addition to the higher level strategic policy.
- 12.5 Sustainable development<sup>145</sup> requires that the needs of the economy are taken into account as well as the environmental and social impacts of development. This balance is required to ensure that Cumbria's waste management and minerals needs are met, in order to support economic activity in appropriate locations and circumstances. These should maintain the viability of local enterprises and minimise impacts on climate change. The strategic policy on economic benefit has no direct development control policy counterpart, but is reflected in the wording of several policies.

### **Standing advice**

- 12.6 The Development Management Procedure Order (DMPO)<sup>146</sup> sets out in Schedule 4, those bodies who must be consulted, and for what type of development, before a planning permission can be granted. Separate standing advice may also be provided by statutory organisations, and this,

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<sup>145</sup> see paragraph 2.28 of this Plan

<sup>146</sup> The Town and Country Planning (Development Management Procedure) Order 2015: <http://www.legislation.gov.uk/ukxi/2015/595/contents/made>

together with their comments from planning application consultations, are material planning considerations when determining the planning application.

12.7 Many of the statutory organisations also provide standing advice on the Local Plan and its policies, setting out how that advice should be taken into account in the planning process. The range of organisations providing the County Council with their specific requirements or constraints is wide - they include utility companies, environmental organisations and Government departments.

- **United Utilities** seek assurance that the criticality of the public water supply system is acknowledged and that any risks to the associated infrastructure, water quality or water resource is accounted for in the Local Plan. They provide advice on availability of potable water, capacity of sewer networks and wastewater treatment.
- **National Grid** is responsible for electricity and gas transmission networks, as well as gas distribution networks. In order to meet the goals of the Energy White Paper, it will be necessary to revise and update much of the UK's energy infrastructure over the next 20 years. National Grid wish to be involved in the preparation, alteration and review of Local Plans, which may affect their assets, such as:
  - overhead transmission lines, underground cables or gas pipeline installations;
  - high voltage electricity substation sites and gas above ground installations.
- The **Environment Agency** has a number of responsibilities, which include a role to regulate adherence to site permits and a remit to implement the Water Framework Directive. They set out a list of ways that the Directive can be achieved through new development, and this is directly relevant to the determination of planning application proposals. The Environment Agency also has a remit, and provides advice, regarding radioactive waste disposal. Furthermore, they provide regularly updated flood mapping.
- **Natural England** is a non-departmental public body, whose statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development. Given the scope of policy and proposals made in the Local Plan, their interests need to be recognised and account taken of their advice.
- The **Marine Management Organisation** is the marine planning authority for England and is responsible for preparing marine plans for English inshore and offshore waters. At its landward extent, a marine plan will apply up to the mean high water springs mark, which includes the tidal extent of any rivers; therefore, there is likely to be an overlap with terrestrial plans, which generally extend to the mean low water springs mark. In their duty to take all reasonable steps to ensure compatibility with existing development plans, they seek to identify the 'marine relevance' of applicable plan policies. Until such time as a marine plan is in place for an area, they advise local authorities to refer to the Marine Policy Statement for guidance on any planning activity that includes a section of coast or tidal river.

- **Network Rail** is the “not for dividend” owner and operator of Britain’s railway infrastructure, which includes the tracks, signals, tunnels, bridges, viaducts, level crossings and stations. They request that the potential impacts from development that may affect Network Rail’s level crossings, are specifically addressed in the Local Plan, and that they are consulted on all planning applications for mineral extraction, within 200 metres of railway property, and on waste sites within 250m.
- **Highways England** is mainly concerned with the safe operation of the Trunk Road network.
- The **Coal Authority** main areas of planning interest, in terms of policy making, relate to:
  - the safeguarding of coal as a mineral in accordance with the advice contained in the NPPF, paragraphs 143 and 144; and
  - ensuring that future development is undertaken safely and reduces the future liability on the tax payer for subsidence and other mining related hazards claims arising from the legacy of coal mining in accordance with the advice in the NPPF, paragraphs 109, 120, 121 and 166.
- The **Office for Nuclear Regulation** (ONR) was established as an agency of the Health & Safety Directorate and is the principal regulator of the safety and security of the nuclear industry in the UK.

### **13. ENVIRONMENT AND COMMUNITIES**

- 13.1 Cumbria is unique within the North West, with a high proportion of the county covered by national and international environmental designations. These recognise, and seek to protect, its landscape and other environmental assets. At the same time, urban development has left a legacy of towns, many in remote or coastal locations, which require regeneration and renewal. These include communities that have been based, in the past, on primary industries. They are now planning for regeneration and improved environments, with diversification of employment to include high value businesses and tourism. The initiatives in connection with Cumbria's economic ambitions, through the LEP, are relevant.
- 13.2 Minerals extraction is required to provide aggregates for new construction and to maintain basic infrastructure, whilst modern waste management facilities are an essential pre-requisite for sustainable development of all kinds.
- 13.3 This chapter sets out the policies for protecting the environment and communities, whilst enabling appropriate and essential minerals and waste management developments where these are needed. Criteria are set out that will be used to decide when planning consent for different types of waste management or minerals developments should be granted, including the most suitable types of location. It also contains guidance on what information might be required with a planning application, what conditions or limitations may be placed on a planning consent and where additional guidance can be found.

#### **Protecting communities**

- 13.4 Most minerals developments, and some waste management developments, are temporary, but may be there for many years. Whilst these developments are essential for the community as whole, local communities close to them, or to their lorry routes, need to be protected from unacceptable impacts. Applications to extend the working area or the working life of existing sites will be considered against the latest policies adopted in the Local Plan. It may be that the original planning application was considered acceptable because of its short term nature, or because it was granted when different criteria or environmental standards were applied, or because needs were estimated to be higher than they are today.
- 13.5 Where physical or time extensions of long standing developments are granted, planning permission conditions will be upgraded to modern standards (see also policy DC14 Review of Mineral Permissions). Environmental impacts are integrated into a number of policies; traffic and transport impacts are set out separately, as they are usually relevant for any minerals or waste management proposal.

#### **Health**

- 13.6 Local planning authorities should ensure that health and wellbeing, and health infrastructure, are considered in Local Plans and in planning decision-making. The link between planning and health has long been established. The built and natural environments are major determinants of health and wellbeing.

- 13.7 In respect of health and healthcare infrastructure, there are a range of issues that could be considered through the plan-making and decision-making processes. For minerals and waste, this includes how potential pollution and other environmental hazards, which might lead to an adverse impact on human health, are accounted for in the consideration of new development proposals. Policy DC2 General criteria, refers to assessments that may be required to accompany a planning application in connection with, where relevant, impacts on human health. The text preceding the policy includes a non-exhaustive list of possible assessments required.

### **Traffic and transport**

- 13.8 The public are generally more aware of traffic than any other aspect of minerals and waste management developments. In Cumbria, lorries often have to use narrow local roads before reaching the strategic road network. Representations are often received about the need to reduce lorry traffic and, particularly, its impacts on communities and on climate change. With regard to the latter point, policy DC1 requires that all proposals for minerals and waste management developments demonstrate that they minimise "minerals or waste miles", where practicable. The opinion of the Highways Authority and Highways England, where appropriate, will be taken on board in assessing development proposals, and its policies and standards will need to be applied.
- 13.9 When considering development proposals, particular consideration needs to be given to sustainable travel to work needs, particularly in the context of the geography of Cumbria. As Cumbria's road network is primarily one of rural roads, which link in to the strategic road networks, travel to work road miles are often high to and from the key service centres around the county; thus maintaining sustainable travel to work in Cumbria can be challenging. Mineral development has to be worked at its source, so at times there will be impacts on the rural road network and on community amenity from staff travel. In such instances and where possible, mitigation measures should be considered to reduce any impacts on highway safety, convenience to other road users and community amenity.

#### **POLICY DC1 Traffic and transport**

Proposals for minerals and waste developments should be located where they:

- a. are well related to the strategic route network as defined in the Cumbria Local Transport Plan, and/or
- b. have potential for rail or waterborne transport and sustainable travel to work, and
- c. minimise operational "minerals and waste road miles" where practicable.

Mineral developments that are not located as above may be permitted:

- if they do not have unacceptable impacts on highway safety and fabric, the convenience of other road users, and on community amenity;
- where an appropriate standard of access and traffic routeing is provided.

## General criteria

- 13.10 Certain issues are common to both minerals and waste developments, and although development may have beneficial effects by providing jobs, essential minerals or managing the community's waste, development will only be permitted when it can be demonstrated that it would not cause unacceptable impacts. Policy DC2 covers specific, potential impacts on sensitive receptors. These could include homes, schools, businesses and individuals. Sensitivity to impacts can vary in different situations; for example, people may be particularly sensitive to extraneous noise when enjoying quiet areas of the countryside. The timing or duration of impacts may also be important. Consideration will also be needed of other land uses, especially ones which could give rise to hazards, such as existing or permitted, but not yet developed, nuclear sites.
- 13.11 The criteria will be used to assess planning applications, and suitable conditions will be used to secure mitigation of impacts where necessary. In some cases, a development may only have been acceptable because of its short term nature and, over the life of a development, accepted environmental standards may change. Proposals to extend the operational life, or the area of a development, will be considered against current environmental standards and development plan policies. Operators are encouraged to engage with local communities, through site liaison committees, about issues that may arise from any operations. The County Council monitors sites and their planning permission conditions on a regular basis.
- 13.12 It is expected that proposals will, where appropriate, be accompanied by relevant assessments. These assessments are likely to be identified during pre-application discussions or if a scoping opinion has been requested, and may include: noise, light, dust, blast vibration, air over-pressure, visual intrusion, traffic, increased flood risk, impacts on the flow, quality and quantity of surface and ground water, health impact and migration of contamination from the site. This is a non-exhaustive list, as each proposal will have its own requirements.
- 13.13 Information about the impacts of noise, light and dust and how they can be measured and monitored can be found in the Planning Practice Guidance<sup>147</sup>. The Campaign to Protect Rural England has produced maps showing areas of tranquillity<sup>148</sup>, and reference to these may assist in the assessment of proposals. Policies DC3 (Noise), DC4 (Quarry blasting) and DC5 (Dust) are intended to stop unacceptable impacts from mineral or waste activities.

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<sup>147</sup> PPG paragraphs 11 to 18, chapter 27 Minerals

<sup>148</sup> Evidence Base document reference LD28: Campaign to Protect Rural England, 2007



## **POLICY DC2 General criteria**

Minerals and waste proposals must, where appropriate, demonstrate that:

- a. assessments have been carried out, the relevant scope of which have been agreed in advance with the planning authority, and proposals have been designed to address, where relevant, impacts on the natural and historic environment or human health;
- b. the proposal would not give rise to significant adverse impacts upon local air quality, particularly within an Air Quality Management Area (AQMA) designated by the district authority;
- c. public rights of way or concessionary paths are not adversely affected, or if this is not possible, either temporary or permanent alternative provision is made;
- d. the overall carbon footprint of the development has been minimised;
- e. issues of ground stability have been addressed including tip and quarry slope stability, mining subsidence and differential settlement of backfill.

Considerations will include:

- the proximity of sensitive receptors, including impacts on surrounding land uses, and protected habitats, species and landscapes;
- how residual and/or mineral wastes will be managed;
- the extent to which adverse effects can be controlled through sensitive siting and design, or visual or acoustic screening;
- the use of appropriate and well maintained and managed equipment;
- phasing and duration of working;
- progressive restoration;
- hours of operations;
- appropriate routes and volumes of traffic; and
- other mitigation measures.

## **Noise**

- 13.14 Applications for new or extended minerals and waste development proposals, including those for related similar processes such as aggregates recycling and disposal of construction waste, should carry out, and submit, a noise impact assessment. The assessment will consider noise from the site itself, as well as from road traffic associated with the development; it will identify all sources of noise and, for each source, take account of the noise emission, its characteristics, the proposed operating locations, procedures, schedules and duration of work for the life of the operation, and its likely impact on the surrounding neighbourhood.
- 13.15 Noise limits are set out in chapter 27 of PPG. Care should be taken, however, when implementing these thresholds, as specific circumstances may justify some small variation being allowed. In those specific cases, and where developments are required to operate on Sundays, public/Bank holidays or at night, this should be agreed in writing beforehand with the County Council, and justification for the requirement provided.

### **POLICY DC3 Noise**

Noise attributable to minerals and waste developments shall not exceed background noise levels,  $L_{Aeq}$  1 hour (free field) by more than 10dB(A) at noise sensitive properties, subject to:

- weekday daytime (0700 to 1900 hours) maximum of 55dB(A)  $L_{Aeq}$  1 hour (free field)
- Saturday daytime (0700 to 1300) maximum of 55dB(A)  $L_{Aeq}$  1 hour (free field)
- evening (1900 to 2200 hours) maximum of 55dB(A)  $L_{Aeq}$  1 hour (free field)
- night time (2200 to 0700 hours) maximum of 42dB(A)  $L_{Aeq}$  1 hour (free field)

Sunday, public/Bank holiday and night time working near to noise sensitive properties or receptors should be avoided where practicable. Developments that are required to operate at these times shall provide extensive noise mitigation measures and, when operational, shall proactively seek to minimise noise throughout the life of the development, based on the findings of comprehensive environmental noise monitoring. A limit of 42dB (A)  $L_{Aeq}$  1 hour (free field) shall apply.

It is recognised that some temporary activities, including soil stripping, construction and removal of soil storage and baffle mounds, aspects of road construction and maintenance, often bring longer-term environmental benefits. For such activities, increased temporary weekday daytime noise level limits should not exceed 70dB(A)  $L_{Aeq}$  1 hour (free field) for periods of up to eight weeks in a year at specified noise sensitive properties. Operators will be expected to make every effort to deliver temporary works at a lower level of noise impact.

Where tonal noise and/or peak and impulsive noise would contribute significantly to total site noise, separate limits will be required independent of the background noise levels and may include  $L_{max}$  in specific octave or third-octave bands, and will not be allowed to occur regularly at night.

### **Quarry blasting**

13.16 The British Standards Institution has produced two standards that relate to blast-induced vibration<sup>149</sup>; one relates to the impact on buildings and structures, and the other to the impact on people within buildings. With respect to people, the standard sets out a “satisfactory magnitude” of 6 to 10mm/second peak particle velocity; for buildings, a peak particle velocity for low frequency vibrations is given as 15 to 20 mm/second.

13.17 In Cumbria, the frequency of quarry blasts are relatively low; this is considered to make people more sensitive to blasts when they occur, rather than people more habituated to them. It is, therefore, considered appropriate to routinely

<sup>149</sup> British Standard BS7385-2, Evaluation and measurement for vibration in buildings, Part 2: Guide to damage levels from ground-borne vibration, 1993, BSI; British Standard BS6472-2, Guide to evaluation of human exposure to vibration in buildings, Part 2: Blast induced vibration, 2008, BSI

set vibration limits at the lower end of the scale. Due to natural variation within the rock mass, and other factors that are outside the shot firer's control, it would be unreasonable to require absolute compliance with a limit. It is normal practice to require more than 95% of blasts to be below the defined limit. However, due to the infrequent use of explosives at quarries in Cumbria, in order to get a 95% confidence in blasting velocities, records going back five or ten years may need to be looked at. Over that period of time, blasting techniques have improved, so the older results could skew the confidence. Therefore, the County Council require a regression line model to be developed and maintained, in order to inform blast design.

- 13.18 There are several other advantages to the development of a regression line model. These include improving the precision and efficiency of blasts, helping operators to lower their costs, and, when a problem arises at a sensitive property during a blast, the regression line will illustrate exact blast conditions and these can then be reworked to improve the blast effects at that property in future.

#### **POLICY DC4 Quarry blasting**

Applications for new minerals development, and for the expansion of existing operations, will only be permitted where the applicant can provide evidence that the proposed development will not have a demonstrable impact on amenity, human health, and the natural and historic environment, due to blast related ground vibration.

Generally, ground vibration attributable to quarry blasting shall not exceed peak particle velocities of 6mm/second in any direction at sensitive properties, unless robust justification is provided.

The operator shall develop a regression line model<sup>150</sup> which will be used to inform blast design. Records of the detailed design of each blast shall be maintained and made available to the mineral planning authority within two weeks of written request.

Records of the detailed design of each blast shall be maintained at the site for a period of at least three months and be made available to the mineral planning authority on request.

#### **Dust**

- 13.19 Applications for developments must be accompanied by a dust assessment study. The exact scope of the study should be agreed with the Local Planning Authority, but it must: identify sensitive receptors/locations; identify the existing baseline conditions at the application site and the sensitive receptors; identify site activities that could lead to dust emission; identify site parameters that may increase potential amenity impacts from dust; and recommend mitigation measures and site design modifications. The study should also include details of how the dust levels arising from the development would be monitored

<sup>150</sup>[http://www.sustainableaggregates.com/sourcesofaggregates/landbased/blasting/blasting\\_acceptlev\\_els\\_p2.htm](http://www.sustainableaggregates.com/sourcesofaggregates/landbased/blasting/blasting_acceptlev_els_p2.htm)

during the operation of the site and how complaints relating to dust emissions will be managed.

- 13.20 Applicants must first seek to remove dust emissions at their source. If this is not possible, then the emissions must be controlled. Should neither option be possible, mitigation measures must then be implemented. Planning applications should clearly set out what measures are proposed to minimise the potential effects of dust from development sites on sensitive receptors/locations.
- 13.21 If the development is expected to produce fine particulates (PM<sub>10</sub> dust), additional measures may need to be put in place if the actual source of emission is within 1,000m of any residential property or other sensitive receptor/location (this distance may be revised due to local circumstances).
- 13.22 All laden Heavy Goods Vehicles entering/leaving a site should be sheeted to avoid dust being emitted from the lorry load when transporting loose materials. Measures to remove dust from wheeled transport leaving the site, which may be deposited on the highway, should also be provided.

#### **POLICY DC5 Dust**

Applications for new minerals and waste development, and for the expansion of existing operations, will only be permitted where the applicant can provide evidence that the proposed development will not have a demonstrable impact on amenity, human health, air quality and the natural and historic environment, with regard to dust emissions. This will include a dust assessment study.

#### **Cumulative environmental impacts**

- 13.23 In some cases, a proposed development may itself have multiple environmental impacts that would be acceptable on their own, but which may exacerbate adverse impacts caused by other developments. Such cumulative environmental impacts can derive either from a number of developments with similar impacts being operational at the same time in an area, or from a number of concurrent developments in an area with different impacts or from a succession of similar developments over time. They can include the impacts of noise or traffic, and impacts on local communities, the landscape, water resources or wildlife habitats.
- 13.24 Local Plan policy needs to take account of the extent to which a particular locality, community, environment or wider area can reasonably be expected to tolerate such adverse cumulative impacts. This may involve mitigation of impacts or the timing of permissions and phasing of operations to make a proposal acceptable. Where cumulative impact presents a potential issue, applicants should be able to demonstrate that this has been adequately assessed and addressed in a planning application.

## **POLICY DC6 Cumulative environmental impacts**

Cumulative impacts of minerals and waste development proposals will be assessed in the light of other land-uses in the area. Where appropriate, considerations will include:

- a. all environmental aspects including habitats and species, visual impact, landscape character, cultural heritage, noise, air quality, ground and surface water resources and quality, agricultural resources and flood risk;
- b. the impact of processing and other plant;
- c. the type, size and numbers of vehicles generated, from site preparation to final restoration and their potential impacts on the transport network, safety and the environment;
- d. impacts on the wider economy and regeneration;
- e. impacts on local amenity, community health and areas for formal and informal recreation.

## **Climate change and energy from waste developments**

13.25 Chapter 6 of this Local Plan explains the need for proactive policies to tackle climate change and its impacts, and lists a number of opportunities afforded by the Plan, many of which have been integrated into specific policies. The key Strategic Policy, SP13 Climate change mitigation and adaptation, requires mineral and waste development proposals to demonstrate that their design, location, use of resources and restoration proposals will make an appropriate contribution to greenhouse gas reduction and adaptation to climate change. In addition, policy SP13 sets out the County Council's support in principle for low carbon renewable energy generation, but there are specific environmental issues in relation to such developments that are discussed in more detail in this chapter.

13.26 Significant opportunities exist for generating renewable energy from biodegradable wastes from a variety of sources, using anaerobic digestion (AD). The UK government supports AD through financial incentives aimed at increasing energy from waste provision<sup>151</sup>. Agricultural wastes, such as slurry, manure and sewage waste, would emit methane either when disposed of in landfill or when spread on land, and anaerobic digestion recovers the methane, which is then burnt to produce electricity and/or 'waste' heat. The residues from the digestion process may then be used as fertiliser, dependent on Environment Agency regulations.

13.27 Anaerobic digesters may also use non-waste feedstocks, including crops, which can add considerably to the calorific value and viability of the facility. Such feedstocks use short cycle carbon that is already in circulation, rather than long cycle carbon from fossil fuels, and may contribute to energy security. However, the carbon balance includes emissions generated in growing replacement food crops (whether animal or human) and food security may also become a UK priority over the lifetime of this Local Plan. It is, therefore,

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<sup>151</sup> Evidence Base document reference ND43: Anaerobic Digestion Strategy and Action Plan, DECC, 2011

clear that the major benefits of the AD process are realised when the use of biodegradable waste is maximised.

- 13.28 Use of any waste heat to replace fossil fuel use in nearby premises is also a significant addition to the carbon balance of the proposal. However, it is often impractical to set up the waste heat use simultaneously with the facility and locating near potential premises is sometimes the best option available.
- 13.29 Anaerobic digestion can also be used to recover value and reduce greenhouse gas emissions from food and drink processing wastes, and from biodegradable fractions deriving from other waste processes, such as Mechanical and Biological Treatment (MBT). In some cases, the process sells on the biogas (e.g. as transport fuel) rather than generating electricity.
- 13.30 Farm based anaerobic digesters, where the waste is all derived from the one farm, are generally small scale and may even be classed as permitted development. The impacts of such developments are no greater than other farm based technologies, and it is expected that the District Councils would determine such planning applications, as necessary. Larger or centralised facilities, which collect waste from a number of sources, have similar impacts to other waste developments. These impacts can be addressed by a number of development control policies in this Local Plan. Measures to be achieved under these policies include appropriate location, acoustic screening for gas engines, adequate storage and handling of waste, protection of groundwater and regulation of traffic movements. It is considered that as the waste planning authority is best placed to maximise the sustainability of such developments, the County Council would expect to determine such applications as “County Matters”<sup>152</sup>, even where some non-waste material is used as feedstock. Encouraging AD plants to operate without any waste inputs is not advised, as it removes one of the key sustainability benefits of the process, and limits the flexibility of the facility to adapt to future changes in Government priorities and incentives.
- 13.31 Other energy from waste technologies, including gasification, incineration of mixed wastes or refuse derived fuels may come forward in Cumbria during the lifetime of the Plan, probably for commercial wastes, because the county’s municipal waste is now being processed in Mechanical and Biological Treatment plants in Carlisle and Barrow. Incineration can play a role within waste management, simply as a way of reducing waste volumes, or to enable diversion from certain disposal routes. Whilst incineration may be appropriate in some circumstances, it is important that energy recovery is not at the expense of more sustainable and lower carbon options, such as reducing waste generation from the outset, or re-using or recycling the materials.
- 13.32 The County Council will actively support energy from waste proposals that make a positive contribution to reducing greenhouse gas emissions and do not have unacceptable impacts contrary to other policies in this Plan, such as for the environment, but also conform to the specific criteria listed in policy DC7.
- 13.33 Developers should demonstrate that there is a suitable heat user (currently using fossil fuels to heat premises or processes) within feasible distance of the

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<sup>152</sup> The Town and Country Planning (Prescription of County Matters) (England) Regulations 2003

proposed facility, and that the proposed AD energy from waste plant has the ability to share the excess waste heat in this way.

#### **POLICY DC7 Energy from waste**

Development that would generate energy from waste will be permitted if they demonstrate that:

- the proposal conforms to the waste hierarchy and does not prejudice the reduction, re-use or recycling of waste; and
- the proposal contributes to a reduction in greenhouse gas emissions compared to the feasible alternatives; and
- there are appropriate storage facilities for waste and other potential feedstocks; and
- the location and design maximises opportunities for waste heat utilisation.

Proposals utilising agricultural waste from more than one source as feedstock will be favoured where the process maximises the use of waste and also the beneficial use of digestates or other waste products.

#### **Renewable energy generation on existing minerals and waste sites**

- 13.34 Proposals may come forward to establish renewable low carbon energy installations within the site boundary of existing, operational minerals or waste sites. The County Council will give support to such proposals from the minerals or waste operators of the site in situations where the energy generated will offset high fossil fuel generated energy consumption or reduce the greenhouse gas emissions of the operation, and will not significantly increase any adverse impacts of the site. Developments, and their proposed restoration schemes, must also be compatible with the existing operation and the existing restoration scheme for the site.
- 13.35 In all situations, evidence should be submitted to show how the proposal contributes to a carbon reduction strategy for either the site itself, or for the operating company, and this should be based on the energy hierarchy. Reduction of energy use and increased efficiency of plant should be key priorities. Proposals that include renewable energy generation from biomass, should demonstrate that the emissions produced are less than those of the fuel replaced; these will generally only be an improvement where the fuel replaced is oil or coal, and evidence should be submitted to demonstrate that alternative lower carbon energy technologies were not feasible.
- 13.36 The majority of existing minerals and waste sites are unlikely to be suitable to host wind turbines or solar panels, though such proposals will be considered, especially if they offset high energy consumption. One suitable location would be on MBT plants; they are high energy users, with large roofs, that could host solar panels. All proposals must also conform to all relevant policies in this Plan, as well as District energy policies.

**POLICY DC8 Renewable energy use and carbon reduction on existing minerals and waste sites**

The County Council will support planning applications for the use of renewable and low carbon energy installations on existing minerals and waste sites, to offset energy consumption or to reduce greenhouse gas emissions.

Proposals must not adversely affect the operations of the application site to an unacceptable level, either individually or cumulatively, during either construction or operation, and must be compatible with appropriate restoration proposals for the site.

Proposals must also demonstrate that:

- they are part of a carbon reduction plan for the site's operational activities that prioritises energy saving and energy efficiency; or
- they are designed to offset any of the site's operational activities that have high energy consumption; and
- the stability of the site has been established through an appropriate site investigation report; and
- any excavated material would be dealt with appropriately; and
- in the case of planning applications for wind turbines, the micro-siting distance for the turbines does not adversely affect the working operations of the site; and
- proposals involving one or more wind turbine will need to demonstrate that:
  - the development site is in an area identified as suitable for wind energy development in a Local or Neighbourhood Plan; and
  - following consultation, it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed and, therefore, the proposal has their backing; and
- connections to the electricity distribution network would be feasible and not have unacceptable adverse environmental impacts; and
- adequate measures would be put in place to remove ancillary structures and for restoration of the site, should the site become non-operational; and
- appropriate mitigation can be applied to address negative impacts and, if applicable, demonstrate that such mitigation measures can be secured by Planning Conditions and Planning Obligations.



## 14. WASTE MANAGEMENT DEVELOPMENT

- 14.1 The Strategic Policies for conventional waste (policies SP2 and SP3) seek to make provision for managing all of Cumbria's waste streams, except radioactive waste, as high up the waste hierarchy as possible, whilst accepting limited cross boundary movements of waste. Policy SP3 further defines the waste capacity policy required to achieve this aim, and to manage predicted<sup>153</sup> waste arisings for Cumbria over the Plan period.
- 14.2 Policy SP3 proposes additional sites for waste management facilities, which are identified in the Site Allocations Policies of the Local Plan. The policy does not identify a need for additional landfill capacity, but does provide strategic criteria by which time extensions for existing landfills, and if a need for additional capacity for inert or non-inert landfill does arise, would be considered. Policy SP3 sets out some Broad Areas around the county, where sites may be suitable for waste management.
- 14.3 Assessment of waste sites allocated in chapter 18 of this Plan, has included consideration of their likely impacts, of opportunities for enhancement and of how they could contribute to the integrated network of facilities that is required. However, all proposals for waste management development, whether on allocated or on un-allocated sites, within or outside the Broad Areas listed, will be considered under the relevant policies in the Plan. Sustainable design will still have to be demonstrated and Environmental Impact Assessments and Habitats Regulations Assessments may still be required. Prospective applicants should seek early advice about these matters.
- 14.4 The policies in this chapter are particularly directed at waste management developments: DC9 to waste management facilities other than landfill provision; DC10 to landfill sites (including those for landraise), whether inert or non-inert; and DC11 to the use of inert waste for agricultural improvement.

### **Hazardous waste**

- 14.5 The 2015 Waste Needs Assessment considers waste managed, rather than locally arising as was assessed in the 2014 WNA, and thus the identified need for hazardous waste management is low. Therefore, no Site Allocations and no development control policies specific to hazardous waste are proposed in the Plan.
- 14.6 Hazardous waste facilities are considered specialist and tend to be larger than local in scale; therefore, it is more appropriate that they are developed in locations that are easily accessible from major road or rail networks. This would limit the areas in Cumbria where such facilities could be developed. Currently, hazardous waste tends to be exported over the county border to facilities in neighbouring areas; however, this does not mean that such facilities should not be developed locally. Policy DC9 provides the criteria by which hazardous waste development should be considered, if any proposals were forthcoming. Facility types a., b., d., e. and f. could handle all major

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<sup>153</sup> Evidence Base document reference LD267: Cumbria County Council Waste Needs Assessment, Urban Vision, December 2015

waste streams including hazardous. The only additional criteria for hazardous waste would be the exclusion of sites located in areas of high flood risk; of the locations for waste management facilities identified in SAP2, those that would be suitable for processing hazardous waste are not located within such flood risk areas.

### **Radioactive waste**

- 14.7 The Strategic Policies include a detailed policy (SP5) for development criteria related to Low Level radioactive wastes (LLW) and policy SP6 for higher activity wastes. If a proposal came forward on a nuclear site, all relevant development control policies would be used to determine the application; unlike conventional waste streams, no specific development control policy has been prepared for radioactive wastes. The reference in paragraph 14.5, to keeping hazardous waste under review is also relevant. This is because some quantities of hazardous wastes, such as asbestos, may also be contaminated by radioactivity. These are likely to arise in the demolition of old buildings during nuclear licensed site decommissioning.

### **Waste management facilities**

- 14.8 Proposals for waste management facilities that contribute to an adequate network of provision, and do not have an unacceptable adverse impact on surrounding land uses or prejudice the overall development of an area, will be encouraged; therefore, proposals will need to conform to all other relevant policies in this Plan, such as environmental and landscape policies. The table in policy DC9 describes the facility types for which a proposal may come forward and then indicates the type of locations where it is considered these facilities could be suitably sited.
- 14.9 The reference to physical, chemical or biological waste treatment being potentially suitable at landfill sites, does not mean disposal in the landfill; rather, it is an appropriate place to site a separate treatment plant for such wastes. There is a synergy in siting a physical, chemical or biological waste treatment facility at a non-inert landfill complex. Firstly, the leachate that is collected at a landfill needs treatment and secondly, oils and other solvents may require pre-treatment before their disposal in the landfill; so this could be an onsite facility.
- 14.10 Anaerobic Digestion (AD) proposals, which fall under biological waste treatment, are really only suitable on farms, in open countryside, or on those industrial estates where noise, visual impact and, to some extent, smell are not an issue. The scale of AD plant is the deciding factor between a proposal being determined by the County Council or a District Council; as set out in paragraph 13.30, large plants or centralised plants have similar impacts to other waste management facilities, so are considered by the County Council.
- 14.11 Any proposals for a non-integral waste management facility on a mineral site or at a landfill facility, will only be acceptable for the lifetime of the parent site. For example, open windrow composting on a peat extraction site would cease when extraction ceases, as it is not a necessary function of the peat operations.

## POLICY DC9 Criteria for waste management facilities

Proposals for waste management facilities for all waste streams excluding radioactive, will be permitted subject to the locational and other criteria set out in the table below.

Proposals on other locations, or those that do not meet the key criteria, would need to be justified under policy SP1.

	Facility Type	Locations	Key Criteria
a.	Scrapyards, vehicle dismantlers, materials recovery facilities or waste transfer facilities	Suitable existing or planned industrial estates; or Existing waste management sites	If no unacceptable impacts on housing, business uses or other sensitive land uses, and no unacceptable impacts on landscape
b.	Household Waste Recycling Centres	Suitable existing or planned industrial estates	If no unacceptable impacts on housing, business uses or other sensitive land uses, and no unacceptable impacts on landscape
c.	Open windrow green waste composting	Farms or open countryside locations; or Existing peat extraction sites; or Isolated suitable industrial estates; or Isolated waste management sites	Where adequate stand-off distances can be established, and no unacceptable impacts on housing, business uses or other sensitive land uses, and no unacceptable impacts on landscape
d.	Enclosed composting facilities	As for c. above; or Suitable industrial estates; or Existing waste management sites	If no unacceptable impacts on housing, business uses or other sensitive land uses, and no unacceptable impacts on landscape
e.	Physical, chemical or biological waste treatment	Suitable industrial estates; or Suitable farms or open countryside locations; or Non-inert landfill sites where required for pre-treatment, or	If the development reduces the potential of waste to pollute the environment If adverse environmental impacts are minimised to an acceptable level If they do not prejudice good operational
			If no unacceptable impacts on housing, business uses or other sensitive land uses

		for treatment of leachate	standards or the restoration scheme	
f.	Construction and demolition, mineral or excavation waste recycling	Suitable industrial estates; or	If no unacceptable impacts on housing, business uses or other sensitive land uses, and no unacceptable impacts on landscape	
		Active quarries and landfill sites, i.e. not for periods beyond the active life of the site	If they do not prejudice good operational standards or the restoration scheme	
g.	Wastewater treatment infrastructure	Appropriate locations as required by the wastewater network	If adverse environmental impacts are minimised to an acceptable level, and no unacceptable impacts on landscape; If no unacceptable impacts on housing, business uses or other sensitive land uses	

### Landfill (including landraise)

14.12 The Cumbria County Council Waste Needs Assessment<sup>154</sup> (WNA) identified a need for between 1.6 million and 2.5 million cubic metres of non-inert landfill capacity over the Plan period. These are approximate figures because, although reasonable predictions for the quantity of residual household waste still being landfilled by 2030 are possible, there are no reliable forecasts about how much waste minimisation measures and diversionary technologies will reduce the amounts of non-inert (i.e. biodegradable) commercial and industrial waste deposited into landfill. Investigation of cross-boundary waste exports referred to in chapter 3, indicated that a small proportion of Cumbria’s residual non-inert waste is currently landfilled outside the county, and some of these landfills have limited life or space. Cumbria should take responsibility for waste arising within the county, and landfill capacity should be available when required, in order to comply with national guidance<sup>155</sup> and with Strategic Policy SP2.

14.13 The remaining capacity provided by the current planning permissions for the non-inert landfills in Cumbria, is likely to be sufficient to meet even the “higher bound” scenario or “Pragmatic case” defined in the WNA; but as explained in chapter 3, some of the planning permissions for some of that landfill capacity expire within the Plan period. If planning applications for time extensions for landfills with remaining available voidspace are not granted, additional sites or lateral extensions could be required. Policy DC10 is intended to enable continued availability of essential landfill infrastructure, where it complies with Strategic Policy SP3 (Waste capacity).

<sup>154</sup> Evidence Base document reference LD267: Cumbria County Council Waste Needs Assessment, Urban Vision, December 2015

<sup>155</sup> PPG paragraph 007, chapter 28 Waste (ID: 28-007-20141016)

- 14.14 If, however, the annual Monitoring process and review of the WNA model shows that waste minimisation and improved recycling is sharply reducing the quantities of waste being landfilled, proposals to provide excess capacity will be discouraged in order to maintain a “close-fit” of land allocation with capacity requirements<sup>156</sup>. Such an approach is required, because over-provision of permitted capacity could hinder initiatives for more sustainable waste management, and delay the completion and restoration of the existing landfills.
- 14.15 A substantial proportion of inert waste can be driven up the waste hierarchy for use as an alternative aggregate. The disposal of residual inert waste should, as a first priority, be directed to landfill engineering works, mineral workings or derelict land requiring fill for agreed restoration schemes. Proposals for new or extended inert waste landfill will need to demonstrate that they will not undermine the availability of such waste material for these uses, or for non-inert landfill engineering, and do not conflict with the County Council’s culverting policy as the Lead Local Flood Authority.
- 14.16 The need for inert landfill capacity during the Plan period will be affected by a number of major infrastructure proposals, including new nuclear capacity, national grid and water supply infrastructure. A need for colliery spoil disposal could also arise if current drift mining proposals are progressed. Policy DC10 aims to be responsive to objectively defined need for inert landfill capacity, without undermining the waste hierarchy or the current positive record of aggregate recycling in the county.
- 14.17 All proposals for additional inert or non-inert landfill capacity will also be assessed against the other relevant policies in this Local Plan. If a proposal involves landraise as many of Cumbria’s landfills do (i.e. rather than digging a hole to dispose of waste it is emplaced on low lying ground that raises the ground level), particular attention will be given to policy DC18 (Landscape and visual impact). Proximity to aerodromes/airfields will also be a material consideration, as non-inert landfill has the potential to attract large numbers of birds, which pose a hazard to aircraft.

**POLICY DC10 Criteria for landfill and landraise**

Proposals for additional landfill capacity will only be permitted if they comply with Strategic Policy SP3 Waste capacity, and will be required to demonstrate the measures that have been taken to reduce waste road miles, and to have comprehensive landfill gas management systems, including electricity generation where viable.

All such proposals will also be assessed against environmental and community policies in this Plan and, in addition, their proximity to sensitive receptors, including aerodromes. Proposals involving landraising should comply with policy DC18.

Proposals for new or extended inert waste landfill will need to demonstrate that they will not undermine the availability of such waste material for agreed restoration schemes at mineral workings and landfills and for derelict land and do not conflict with the County Council’s culverting policy as the Lead Local Flood Authority.

<sup>156</sup> PPG paragraph 038, chapter 28 Waste (ID: 28-038-20141016)

## **Use of inert waste for agricultural improvement**

- 14.18 Disposing of inert waste in landfill sites carries a cost in terms of gate fees and landfill tax, and demand for alternative disposal sites, particularly for excavation waste, has grown in recent years. Proposals to dispose of inert material on agricultural land, using the waste for improvement or land reclamation, may be appropriate in some circumstances, but can potentially undermine the availability of suitable material for essential restoration works to quarries, landfills and derelict land. Disposal of inert waste without applying waste reduction, re-use and recycling principles is also contrary to the waste hierarchy, and disposal of such waste on agricultural land requires consideration of drainage, flood risk and water quality on surrounding areas.
- 14.19 Many policies in this Plan are likely to be relevant to such proposals, including DC1: Traffic and transport, DC16: Biodiversity and geodiversity, DC18: Landscape and visual impact, DC19: Flood risk and DC22: Restoration and aftercare. In addition, proposals will be considered under policy DC11, which incorporates specific criteria relevant to such development.

### **POLICY DC11 Inert waste for agricultural improvement**

Residual inert waste that cannot be recycled should, as a first priority, be directed to landfill engineering works, mineral workings or derelict land requiring fill for agreed restoration schemes.

Proposals for the use of inert waste for the improvement or reclamation of agricultural land will need to identify the source of the waste and demonstrate why this waste cannot be used for the above works or schemes. Furthermore, proposals will only be permitted if they can demonstrate that they:

- a. will not undermine the availability of such waste for use in the type of schemes described above; and
- b. will result in a material improvement to the grade or classification of agricultural land; and
- c. will use the minimum amount of material necessary; and
- d. will have no adverse impact on the drainage system or water quality (whether coastal, surface or groundwater) of the land which is the subject of the proposals or any land outside the site; and
- e. will have no adverse impact on flood risk within or outside the site; and
- f. do not conflict with other policies in this Plan and with any relevant locational or site specific policies.

## **15. MINERALS DEVELOPMENT**

- 15.1 The Strategic Policies for minerals in chapter 5, consider the need for a steady and sustainable supply of minerals and include policies for the significant minerals that are extracted within the county. In order to deliver the vision and objectives of the Strategic Policies, the Local Plan also needs to set out clear and appropriate Development Control policies, which protect resources and make them available to meet the needs of the economy.

### **Non-energy minerals**

- 15.2 As explained in chapter 5, some minerals, such as oil, gas and coal, are used to produce energy, whilst others do not have that capability. Those that are not used to produce energy include aggregates, industrial minerals, peat and building stones.
- 15.3 Policies SP7 to SP12 set out the strategic requirements for aggregates and other non-energy producing minerals, and for safeguarding these resources. Further provision is made by Preferred Areas or Areas of Search; these are set out in Site Allocations Policy SAP4 (see chapter 18). The Site Allocations Policies consider whether the release of identified Preferred Areas should be related to the landbanks (as set out in the Local Aggregates Assessment) and how they may be phased over the Plan period. Safeguarding will be achieved by identifying Mineral Safeguarding Areas and a Mineral Consultation Area; these are shown on the Policies Map.
- 15.4 Policy DC12 relates to aggregates, industrial minerals, building stones, gypsum and any other non-energy producing minerals. 'Building stone' is used generically to cover all uses for building stones, whether for internal decoration, outside walling, etc.; the term 'dimension' stone' is often used by the industry. As well as consideration under the criteria in the policy, building stone quarries are highlighted in the second part of the policy for particular, smaller scale roles. Cumbria represents an area of highly varied geology, and the various rock types present have been used extensively to construct its unique assemblage of vernacular stone buildings and, in some cases, have been exported to markets located much further afield (both national and international); this is reflected in the flexible approach in DC12, to the need for stone with very specific characteristics. Therefore, Cumbria's building stone quarries have a unique role to play in the conservation and repair of heritage assets or in the matching of stone in local developments. This policy would equally apply to applications associated with the stone products/processing industry within Cumbria, outside the National Parks.

## **POLICY DC12 Criteria for non-energy minerals development**

Proposals for non-energy minerals development inside both the identified Preferred Areas and the identified Areas of Search, will be permitted if they do not conflict with other policies in this Plan.

Proposals for non-energy minerals development outside both the Preferred Areas and Areas of Search, whether a physical or time extension to an existing site or a new site, will be considered on their individual merits. Criteria to be considered are:

- a. the need for the specific mineral;
- b. economic considerations;
- c. positive and negative environmental impacts (including a strategic approach);
- d. land stability.

Favourable consideration may also be given to proposals that can be demonstrated to be more sustainable than any available alternative, including:

- borrow pits to meet a specific demand not easily met from elsewhere;
- building stone quarries, including their need for stone to match the conservation and repair of heritage assets and also for local vernacular building;
- areas already subject to minerals extraction where the additional working will enable comprehensive exploitation of the reserves, or where the proposal achieves a more sustainable afteruse or a better restoration of the area.

## **Energy minerals**

- 15.5 Chapter 5 of this Local Plan concluded that the most likely forms of hydrocarbon development to be progressed in Cumbria within the Plan period are: Coal Bed Methane (CBM), sourced from coal seams that have not yet been mined by conventional methods; deep mining for coking coal; and Underground Coal Gasification, possibly associated with, and following, deep mining. During the Plan period, however, it is quite possible that other studies will be completed that identify other sources of conventional and unconventional oil and gas; therefore, policy DC13 covers conventional and unconventional oil and gas, as well as coal development.

### *Oil and gas*

- 15.6 The determination of planning applications for oil and gas minerals is based on NPPF paragraph 14, which is incorporated into this Local Plan as Strategic Policy SP1; it requires that development proposals that accord with the development plan are approved without delay. Only where there are no policies relevant to the application or where relevant policies are out of date, does the policy require that the Council grant permission, unless material considerations indicate otherwise. Such a decision would need to take into account whether any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against



the policies in the NPPF taken as a whole; or if specific policies in that Framework indicate that development should be restricted. The Government states that unconventional gas development can benefit the economy by “improving security of supply, creating jobs, growth and investment, and supporting the transition to a low carbon economy at the least cost.”<sup>157</sup>

- 15.7 The shale gas industry has also committed to providing community benefits payments to local communities, and the Government has proposed other financial incentives to Local Authorities. However, such payments are not material planning considerations and cannot be considered as benefits in the determination of the planning application by the mineral planning authority. Payments under planning obligations, to mitigate or compensate for identified adverse impacts, or to realise specific benefits that are relevant to the planning proposal may, however, be offered by an applicant or required by the mineral planning authority. Policy DC13 would ensure that such impacts are fully understood, and that appropriate mitigation and/or compensation can enable impacts to be weighed against the benefits of the development.
- 15.8 Government policy<sup>158</sup> also requires mineral planning authorities to set out clear guidance and criteria for the location and assessment of hydrocarbon extraction within the Petroleum Exploration and Development Licence areas (PEDL); however, locational aspects are covered by national policies, such as those for Areas of Outstanding Natural Beauty, and also by policies in this Plan, such as SP15 Environmental assets. It is considered, therefore, that these aspects do not need to be repeated in policy DC13. Developers are encouraged, however, to enter pre-application discussions with the County Council at the earliest possible opportunity, so that a full understanding of the proposals, and of the potential constraints or issues in specific areas, are fully explored prior to planning applications being submitted.
- 15.9 Many issues related to oil and gas development are not material planning considerations because they are regulated by other agencies, such as the Environment Agency and Health and Safety Executive; however, if a site did not have the requisite permit from these regulators, that would be a material consideration. Some of the key material planning issues for the assessment of oil and gas planning applications are also common to other minerals or waste developments and are covered by the other environmental policies in this Plan. However, there are distinct planning issues that affect the assessment of oil and gas proposals, and one of these is the need for exploration, appraisal and exploitation phases of hydrocarbon development.
- 15.10 Government requires<sup>159</sup> that Local Plan policy distinguishes between the different phases of oil and gas developments; thus policy DC13 provides separate criteria for the exploration and appraisal phases, compared to the exploitation phase. In particular, it is considered that the pressing need for full and timely restoration of exploratory or appraisal wells, in cases where they are not progressed to production, requires a specific policy, in addition to Strategic Policy SP16 and policy DC22, which relate to the restoration and aftercare of sites.

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<sup>157</sup> <https://www.gov.uk/government/groups/office-of-unconventional-gas-and-oil-ougo>

<sup>158</sup> PPG paragraph 105, chapter 27 Minerals (ID: 27-105-20140306)

<sup>159</sup> NPPF paragraph 147

- 15.11 In addition, policy DC13 requires that planning applications for exploitation should be fully informed by a completed appraisal for the oil or gas field; that cumulative impacts of the development have been considered; and that significant adverse impacts are adequately mitigated or compensated for. This may be by mitigation proposed with the submission or, where appropriate, by conditions attached to a planning consent. Where the adverse impacts or harms are outside the application site, mitigation or compensation may be provided through planning obligations.
- 15.12 Government guidance<sup>160</sup> advises that planning applications covering more than one phase may be submitted if the full environmental information for the whole development is available with the application. It is considered, however, that applications including the commercial production of unconventional gas within the same proposal as exploration and appraisal, are unlikely to satisfy this requirement. This is because the scale and nature of the resource, including connection to the gas transmission network, and associated water treatment and gas compressing facilities that may be required for the viable development of the gas field, could not be known at that time.
- 15.13 Therefore, the policy makes it clear that applications for the commercial exploitation of oil and gas should include an appraisal of the hydrocarbon resource of the oil or gas field. This should enable traffic impacts and the potential need for additional highway provision, the cumulative landscape and visual impact of the proposals, and impacts on other environmental assets to be adequately assessed. It should be noted that the Environmental Impact Assessment Regulations (2017) require all necessary ancillary development, and cumulative impacts with other existing or planned proposals, to be included within the assessment.

### *Coal*

- 15.14 The key issues related to coal extraction were outlined in chapter 5 and it was concluded that all such proposals should be assessed on their own merits rather than identifying strategic locations where either coal extraction or disposal of colliery spoil were acceptable. The NPPF<sup>161</sup> requires that permission should not be given for the extraction of coal unless the proposal is environmentally acceptable, or can be made so by planning conditions or obligations, or, if not, provides national, local or community benefits that clearly outweigh the likely impacts, in order to justify the grant of planning permission. This guidance is followed explicitly in policy DC13, and is considered to apply equally to thermal and coking coal.
- 15.15 The movement of coal, and potentially colliery spoil, from major coal extraction development would involve large scale transport movements, and yet the location of such developments is dependent on geological factors. Impacts on sensitive sites and other land uses will also be major factors in site selection, and therefore minimising “mineral or waste miles”, as required by policy SP13, is often not possible. Nevertheless, the environmental acceptability of such a proposal will include the amenity, safety and highway maintenance aspects of

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<sup>160</sup> PPG paragraph 094, chapter 27 Minerals (ID: 27-094-20140306)

<sup>161</sup> NPPF paragraph 149

traffic movements. Provision of sustainable transport, e.g. rail or sea, would enhance the environmental acceptability of such proposals and is included as a criterion in DC13.

- 15.16 For underground coal mining, as well as transport, potential impacts to be considered and mitigated for will include subsidence and the disposal of colliery spoil. Mineral planning authorities are also required<sup>162</sup> to encourage the capture and use of methane from coal in active coal mines (known as CMM), in order to minimise greenhouse gas emissions and contribute to energy supply, and this is also included as a criterion within policy DC13.
- 15.17 However, it should be noted that the deep coal measures identified around Whitehaven and Workington are largely offshore, where the Marine Management Organisation would be the relevant planning authority. The identified underground mining areas near Longtown, and the surface extraction licence area on the border, are largely within Dumfries and Galloway.
- 15.18 The provisional licences for the areas identified above, have to be converted to operational licences from the Coal Authority before any mining can commence, and both agreement from land owners and planning consent have to be obtained before such operational licences are granted. It is possible, therefore, that operational licences would cover a smaller land area than presently shown by the conditional licences (see chapter 5, Figure 5.3).

#### **POLICY DC13 Criteria for energy minerals**

Proposals for energy minerals developments that conform to the Strategic and other Policies of this Local Plan will be supported subject to the following criteria:

##### **Exploration and appraisal of hydrocarbons**

Planning permission will be granted for proposals for exploration and appraisal of oil and gas resources provided that:

- a. the site and equipment is sited at a location where it can be demonstrated that it will not have any unacceptable social and environmental impacts; and
- b. the proposal provides for appropriate baseline monitoring prior to commencement of development; and
- c. the impacts of the development have been considered in relation to impact on climate change; and
- d. the timely restoration and subsequent aftercare of the site, whether or not oil or gas is found.

##### **Commercial exploitation of hydrocarbons**

Planning permission will be granted for proposals for commercial exploitation of oil and gas, provided that:

- a. a full appraisal programme for the oil or gas field has been completed;

<sup>162</sup> NPPF paragraph 147

- b. the proposed location is the most suitable, taking into account social, environmental, geological and technical factors;
- c. the cumulative impacts of the development of the gas field and essential associated infrastructure have been assessed;
- d. appropriate provision is made for mitigation or compensation for significantly adverse environmental and social impacts; and
- e. the impact of the development has been considered in terms of contributing to the mitigation of climate change.

Combined planning applications for more than one phase will only be considered if all relevant information, including environmental information, to support the full extent of the application is provided.

### **Underground Coal Gasification**

The criteria set out above in this policy, for exploration and appraisal and commercial exploitation, will also apply to proposals for onshore surface works or ancillary development to support offshore Underground Coal Gasification (UCG). Where a UCG proposal follows a planning permission for coal extraction only, a separate planning application will be required for development related to UCG.

### **Coal**

Planning applications for coal extraction will only be granted where;

- the proposal would not have any unacceptable social or environmental impacts; or, if not
- it can be made so by planning conditions or obligations; or, if not
- it provides national, local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission.

For underground coal mining, potential impacts to be considered and mitigated for will include the effects of subsidence including: the potential hazard of old mine workings; the treatment and pumping of underground water; monitoring and preventative measures for potential gas emissions; and the disposal of colliery spoil. Provision of sustainable transport will be encouraged, as will Coal Mine Methane capture and utilisation.

### **Applications for new conditions**

15.19 Minerals sites that have long standing planning permissions may be subject to a review of mineral planning conditions under Section 96, Schedule 14 of the Environment Act 1995, as amended by Section 10, Schedule 3 of the Growth and Infrastructure Act 2013. The aim of the review is to ensure that sites “operate to continuously high working and environmental standards”<sup>163</sup> through the use of planning conditions.

15.20 There are two categories of site that may be subject to a review of mineral planning conditions – dormant sites (see Glossary) and those active mineral sites whose planning permission lasts for many years (under the Environment

<sup>163</sup> PPG paragraph 178, chapter 27 Minerals (ID: 27-178-20140306)

Act 1995, this is usually until 2042). The County Council has a power, rather than a duty, to request a review of the conditions if a) it considers that the existing conditions are no longer acceptable and b) it is at least 14 years since the original permission or the most recent review. If so, the Council will serve a 12 month notice, giving the operator time to consider their working practices and prepare updated conditions.

15.21 When an application for a review is submitted by the mineral operator, together with a revised schedule of conditions and such information that is needed to assess their environmental implications, these will be considered by the County Council, who may propose an alternative schedule of conditions. There will usually be a period of negotiation, but the Council will then determine the application by imposing a schedule of conditions that seek to ensure that the development operates to high working and environmental standards. This will be assessed in relation to the policies in the current Local Plan, which have sought to define the appropriate standards, minimise impacts on the environment and communities, and secure environmental enhancements, particularly through restoration schemes. This is subject to the provisions of the Act, and that the asset value and economic viability of the site should not be unduly affected. All conditions must also meet the policy tests and be necessary<sup>164</sup>.

15.22 The operator has a right of appeal if the conditions imposed differ from those submitted with the application, similar to the right to appeal against any other planning application. The County Council does not have the power to refuse ROMP applications, but in very exceptional circumstances, the Council may impose conditions that restrict working rights (e.g. area of extraction, depth of working, or expiry date of the permission).

15.23 The Act provides for compensation to be payable if this restriction of working rights prejudices the viability or asset value of the site to an “unreasonable degree”. The detail or requirements of a restoration plan are separate from the restriction of working rights; so if asset value of a mineral development drops due to a justifiable change in restoration plan, then compensation would not be payable.

#### **POLICY DC14 Review of Mineral Permissions**

All applications for initial and periodic reviews of minerals permissions, should demonstrate that appropriate environmental and working standards will be achieved by:

- minimising impacts on the environment and communities; and
- providing environmental enhancements through restoration and after-use schemes.

<sup>164</sup> PPG paragraph 187, chapter 27 Minerals (ID: 27-187-20140306)

## Minerals safeguarding

- 15.24 Mineral Safeguarding Areas (MSA's) are required by national policy<sup>165</sup> to be identified for potentially useful and viable mineral resources, of both local and national importance. Using the Mineral Resource Information for Development Plans – Cumbria and the Lake District<sup>166</sup>, as part of the Site Allocations Policies work for the Cumbria Minerals and Waste Development Framework in 2008, MSA's were defined for sand and gravel, limestone, building stone, igneous rock, sandstone, shallow coal, fireclay, brick clay and gypsum.
- 15.25 An MSA for secondary aggregates was also defined, based on the extent of the slag bank at Derwent Howe, to the south of Workington. The slag bank is made from silica waste, a by-product of manufacturing iron in blast furnaces, though the iron works closed and were demolished some years ago. It is owned by the County Council and aggregate has been extracted by a local operator. The whole of this resource is identified as an MSA for secondary aggregate.
- 15.26 Previous drafts of the Local Plan have suggested that both Millom and Barrow slag banks, which are also owned by the County Council, could be safeguarded for future use as secondary aggregate. It is considered that neither resource is likely to be accessible: Millom slag bank is now a Local Nature Reserve and falls within the Duddon Estuary Special Protection Area and Ramsar; Barrow slag bank lies adjacent to the same SPA and Ramsar, as well as the Morecambe Bay Special Area of Conservation. Notwithstanding the fact that these environmental designations are, in effect, safeguarding these two slag banks, previous trials to use the slag as a secondary aggregate have shown them not to be economically viable.
- 15.27 In consultation with the relevant mineral operators in the county, the gypsum MSA has been refined and a slate MSA, taken from that part of the Wray Castle formation located outside the National Park, has also been identified. The MSA for building stone was very localised, around Birkhams Quarry in west Cumbria. It was hoped that a building stone survey of Cumbria could be undertaken, that would identify the range of stones, their uses and markets. To date, this survey has not been undertaken, but this situation will be kept under review; there is, however, much useful data in the Strategic Stone Study undertaken by English Heritage<sup>167</sup>. In the meantime, it was decided to remove the specific building stone MSA; however, the resources from which building stones are or may be obtained in the future (igneous rock, limestone and sandstone), are safeguarded through the relevant Mineral Safeguarding Areas and, therefore, the Mineral Consultation Area.
- 15.28 It has not been considered necessary to identify Mineral Safeguarding Areas for the deep coalfields, because any future mining would not be directly sterilised by other types of development in the same way that shallow coal resources could be. The deep coal resource delineation, supplied by the Coal Authority, was previously shown on the MSA section of the Policies Map, but it

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<sup>165</sup> National Planning Policy Framework, Section 13, DCLG, March 2012

<sup>166</sup> Evidence Base document reference LD46: British Geological Survey, 2001

<sup>167</sup> Evidence Base document reference LD249: Strategic Stone Study: A Building Stone Atlas of Cumbria and the Lake District, English Heritage, August 2013

was decided that a map of this resource would be of more value within the Local Plan text (see Figure 5.4). The extent of lead and zinc planning permissions around Alston have also been removed from the MSA Policies Map, and are now shown in Figure 5.1.

- 15.29 In order to ensure that all identified mineral resources are also safeguarded from proximal development, the County Council has added 250m to all those MSA's previously designated by the resource boundaries set out in the British Geological Survey document above. The exceptions to this are the gypsum and secondary aggregates MSA's, whose boundaries align with the known resources. The gypsum boundary was agreed at the Site Allocations Policies Examination in 2011, through discussion between the Inspector, the County Council and the local community, who felt that they may be affected by housing blight if the area identified was too large. The secondary aggregates MSA is constituted by Derwent Howe slag bank, which lies on the coast near Workington. The working area is on the seaward side and the slag bank as a whole abuts an existing industrial area, so no increase to the MSA is considered necessary.
- 15.30 There was consideration of a larger 'buffer' of 500m for the identified resources of hard rock, as those quarries potentially have an effect over a larger area if blasting is undertaken. However, it was considered that as there is a relatively low incidence of blasting in the county, its effects could be modulated by modern blasting techniques, so only 250m were added to the known hard rock resources. An MSA for peat was not considered necessary. All of the current Mineral Safeguarding Areas are shown on the Policies Map Part 2.
- 15.31 All current mineral workings, allocated Preferred Areas and Areas of Search are located within the MSAs; the only exception is the one remaining peat extraction site. All of the sites identified in policy SAP5 for safeguarding also lie within the MSA's. Policy DC15 explains that the County Council should be consulted on any non-minerals planning applications received within the MSA that would be likely to affect the winning and working of minerals, and consideration should therefore be given to any potential impact on existing workings and allocated sites.
- 15.32 Since the early 1980's, it has been a requirement of national policy for counties that are a two tier planning authority to also establish a Mineral Consultation Area (MCA). MCA's require consultation between County and District Councils, in order to ensure that sensitive development, such as houses, are not built in areas close to mineral workings, and that minerals, which are a non-renewable resource, are not unnecessarily sterilised by other types of development. The boundary of the MCA will be contiguous with the boundaries of the MSA's as a whole. The Mineral Consultation Area is shown on the Policies Map Part 3.
- 15.33 Whilst the District Councils in Cumbria are not the mineral planning authorities, they have an important role in helping the County Council to safeguard minerals. The Districts will show the MCA on their Policies Maps, which will aid the decisions that they make in identifying suitable areas for non-minerals development in their Local Plans.

15.34 The Districts will consult the County on applications for certain non-minerals developments that fall within the MCA. This will allow the Minerals Planning Authority time to comment on the significance of that proposal on the future potential for winning and working of minerals, before the District or Borough determines the planning application for the non-mineral development. It is not necessary for the District Councils to consult the County Council on every development application, only those such as large employment or housing sites, or sensitive development, where future extraction of workable mineral resources would be prevented and where there could be significant adverse effects on future occupiers of such developments. Some consultation with the Districts has already taken place to agree a protocol about which planning applications should be subject to the consultation requirements and which would be exempt.

15.35 Certain non-mineral developments will have a negligible impact on the potential future extraction of the mineral resource. A list of such developments is set out in Table 15.1; the District or Borough Council does not have to contact the Mineral Planning Authority for developments of the type set out in the Table.

Table 15.1: Application exemptions to policy DC15

<ul style="list-style-type: none"><li>i. Applications for Householder development<sup>168</sup></li><li>ii. Applications for extensions or alterations to existing buildings, and for change of use of existing development, which do not fundamentally change the scale and character of the building/use.</li><li>iii. Applications that are in accordance with allocations of an adopted or deposited Local Plan, where the Plan took account of prevention of unnecessary mineral sterilisation in consultation with the Mineral Planning Authority and industry, and determined that prior extraction should not be considered when development applications in a Mineral Safeguarding Area came forward.</li><li>iv. Applications for Advertisement Consent.</li><li>v. Applications for reserved matters, including subsequent applications after outline consent has been granted.</li><li>vi. Prior notifications (telecommunications; forestry; agriculture; demolition).</li><li>vii. Certificates of Lawfulness of Existing or Proposed Use or Development (CLEUDs and CLOPUDs).</li><li>viii. Applications for works to trees.</li><li>ix. Applications for temporary planning permission.</li><li>x. Applications for Conservation Area Consent.</li><li>xi. Applications for Listed Buildings Consent.</li></ul>
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<sup>168</sup> work or extension to a dwelling within the curtilage of the property



## **POLICY DC15 Minerals safeguarding**

The Mineral Planning Authority will safeguard those mineral resources that are shown on the Policies Map. Within those areas, the Mineral Planning Authority should be consulted by the Local Planning Authorities on any planning applications they receive for non-minerals development that would be likely to affect the winning and working of minerals.

All non-minerals development proposals within the Mineral Safeguarding Area should extract any viable mineral resources present, in advance of construction. Proposals for non-mineral development within the Mineral Safeguarding Areas that do not allow for the prior extraction of minerals will only be permitted where:

1. the need for the development outweighs the need to extract the mineral; or
2. it can be clearly demonstrated that it is not environmentally acceptable or economically viable to extract the mineral prior to non-mineral development taking place; or
3. it can be clearly demonstrated that the mineral is either not present or of no economic value or would lead to land stability problems or is too deep to extract in relation to the proposed development; or
4. the development would not prevent minerals extraction taking place in the future; or
5. the development within the Mineral Safeguarding Area is exempt, as set out in the exemption list in Table 15.1.

All of the Mineral Safeguarding Areas together, are contiguous with the Mineral Consultation Area.

## **16. ENVIRONMENTAL ASSETS**

- 16.1 The Strategic Policies recognise and describe the unique importance of the natural assets and historic environment of Cumbria. These underpin the tourism industry, attract business and investment and contribute to the quality of life. The health of the eco-system is vital for everyone.
- 16.2 The environmental assets include, but are not confined to, the nationally and internationally designated areas and features, and their settings. There are also local designations and additional areas within the area of this Plan where the historic environment, wildlife habitats, species and landscape character are highly valued (see Boxes 8.1 and 8.2 in chapter 8).
- 16.3 Bearing in mind the probable scenarios for minerals and waste developments that are likely to be proposed in Cumbria, it is considered that the Local Plan's focus can, in most cases, be on conservation or enhancement of the county's environmental assets. It is also important that development is compatible with the characteristics and features of Cumbria. Many waste management developments are fairly flexible with regard to their precise location and should be able to avoid the more sensitive locations. In contrast, minerals can only be worked where they occur.
- 16.4 Strategic Policy SP15 provides for the conservation or enhancement of all Cumbria's environmental assets, including habitats, species and geological assets, as well as the historic environment, landscape and water resources. Each of these aspects is considered in more detail in the following sections. Matters relating to quality of life and amenity are covered in the previous chapters.

### **Biodiversity and geodiversity**

- 16.5 The approach of this Local Plan is to help increase the county's biodiversity resources, whilst ensuring that sustainable development can take place, that contributes to the growth of Cumbria's economy. This would involve protecting, enhancing, expanding and linking habitats, using the functional ecological and green infrastructure networks. These include the networks of natural habitats, which are essential for migration, dispersal, genetic exchange and the general ecological fabric.
- 16.6 NPPF paragraph 117 requires planning policies to identify and map components of the local ecological networks. As set out in paragraph 8.11 of the Plan, within Cumbria, the detailed representation of current knowledge of the county's biodiversity is held by the Cumbria Biodiversity Data Centre (CBDC). Its evidence base includes species and habitat statements, habitat targets, planning considerations and enhancement opportunities. Further work for the biodiversity evidence base will include identifying the networks of natural habitats required by national policies, mapping biodiversity opportunities and defining the landscape features that are of major importance for migration, dispersal and genetic exchange. This is an iterative process that will continue to inform the policy and thus any necessary updates.

- 16.7 In a two-tier authority area such as Cumbria, it is considered that the local ecological networks can be better mapped at the District scale; the CBDC data is available to all relevant Councils. For further information, reference should be made to all District and Borough Council draft or adopted Policies Maps.
- 16.8 Cumbria's list of Key Wildlife Species identifies those species that have the status of being specifically protected or are UK Priority and/or Cumbria Biodiversity Framework (Action Plan) species. Work has been undertaken to relate species to appropriate habitat types, functional ecological networks and to geographic areas of the county; Key Species and Priority Habitat Statements have been prepared, which provide further guidance for policy and for applicants. Twenty three of the species could, potentially, be the ones that are most likely to be at risk from minerals and waste developments within the Plan area.
- 16.9 The aim of planning decisions will be not only to prevent harm to biodiversity and geological conservation interests, but also to seek enhancements. In addition to national policies, Strategic Policy SP15 sets out that where granting planning permission would result in significant harm to those interests, local planning authorities will need to be satisfied that the development cannot reasonably be located on any alternative sites that would result in less or no harm. In the absence of any such alternatives, local planning authorities should ensure that, before planning permission is granted, adequate mitigation measures are put in place. Where a planning decision would result in significant harm to biodiversity and geological interests, which cannot be prevented or adequately mitigated against, appropriate compensation measures should be sought. If that significant harm cannot be prevented, adequately mitigated against, or compensated for, then planning permission should be refused.<sup>169</sup>
- 16.10 Strategic Policy SP15 makes it clear that the development control process will ensure that proposals demonstrate compliance with the statutory protection for internationally and nationally protected features, and will seek to protect and enhance all environmental assets. More detailed policy criteria for local biodiversity and geodiversity resources, including County Wildlife Sites and Local Nature Reserves are set out in policy DC16 Biodiversity and geodiversity.
- 16.11 Policy DC16 derives from policy SP15 and its supporting text. It highlights the need not only to avoid significant harm to assets, but also to conserve or enhance them where possible. This is reflected in the order in which criteria will be considered. Where harm cannot be avoided or mitigated for, compensatory measures should be provided, and these will need to be well considered and designed, with provision for long term management where appropriate.

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<sup>169</sup> NPPF paragraph 118

## **POLICY DC16 Biodiversity and geodiversity**

Proposals for minerals and waste developments, including ones for ROMP applications and time extensions, will be required to identify, where appropriate:-

- any potential impacts on important biodiversity and geological conservation assets, as defined in the Strategic Policies, and on any functional ecological and green infrastructure networks; and
- their potential to enhance, restore or add to these resources; and
- to contribute to national and local biodiversity and geodiversity objectives and targets.

Proposals for developments within, or affecting the features or settings of such resources, should demonstrate that:

- a. the need for, and benefits of, the development and the reasons for locating the development in its proposed location and alternatives, have been considered;
- b. appropriate measures to mitigate any adverse effects (direct, indirect and cumulative) have been identified and secured, and advantage has been taken of opportunities to incorporate beneficial biodiversity and geological conservation features; or
- c. where adverse impacts cannot be avoided or mitigated for, that appropriate compensatory measures have been identified and secured; and
- d. that all mitigation, enhancement or compensatory measures are compatible with the characteristics of, and features within, Cumbria.

16.12 Other legislation requires Habitats Regulations Assessment for any proposals that may impact upon a European Wildlife Site, or features associated with it. This is to determine whether the proposal would be likely to have significant adverse effects on the integrity of the European site. Any developments that are unable to demonstrate no adverse effect will not be supported.

16.13 Developers are advised that ecological surveys are usually needed to establish whether protected species are present on prospective minerals and waste sites. Early attention needs to be given to these, as some of these surveys can only be done effectively at certain times of the year. Planning applications may not be able to be considered without the survey information and a criminal offence may be involved if harm is caused to the species or their habitat.

### **Historic environment**

16.14 Strategic Policy SP15 (Environmental assets) aims to protect, conserve and enhance the historic environment (see Glossary). Policy DC17 contains more detailed advice and criteria that will be applied to relevant proposals. The policy relating to cumulative impacts (DC6) may also be relevant for some proposed developments.

### **POLICY DC17 Historic environment**

Minerals and waste management developments, including restoration and afteruse, will, where necessary, preserve and, where appropriate, enhance Cumbria's heritage assets and their settings. Any such proposals that would result in harm to, or total loss of, the significance of a designated heritage asset, or its setting, (or a non-designated heritage asset of national significance, or its setting), or the Outstanding Universal Value of a World Heritage Site, will only be permitted where it can be clearly demonstrated that public benefits outweigh the harm and that the harm is necessary to achieve those benefits.

Any proposals that affect a non-designated heritage asset or its setting will be judged on the significance of the heritage asset, the scale of the harm and the public benefits of the proposal.

Where a development proposal affecting archaeological sites is acceptable in principle, the preservation of the remains in situ will be the preferred solution. Where in situ preservation is not possible or justified, the development will be required to make adequate provision for excavation and recording before or during development.

All development proposals that will have an impact on any heritage asset or its setting (including where there is potential for unknown archaeological assets), whether designated or not, should be accompanied by an assessment of the significance of the heritage asset and its setting, and how that significance will be affected by the proposed development. The level of information required will be proportionate to the significance of the asset and to the scale of impact of the proposal, and may require, where necessary, an archaeological desk based assessment and field investigation. The recording of the loss of, or harm to, any heritage assets (where justified), and any supporting information, will need to be made publically accessible in the County's Historic Environment Record.

- 16.15 The County Council's Historic Environment Service provides advice about recorded historic environment interests and whether a development would be likely to affect a heritage asset or its setting. The circumstances that contribute to the significance of an asset will vary from asset to asset; however, as an aid, a non-exhaustive list of the issues that should be considered are listed in the box below. Planning applications will need to include sufficient information about such interests and may be required to include the findings of preliminary site investigations, or other information relevant to a design statement. Advice about the appropriate level of field investigation can be found in NPPF section 12, on conserving and enhancing the historic environment. Applicants are advised to contact the Council's Historic Environment Service at an early stage for advice.

## **BOX 16.1**

### **Issues that should be considered when assessing the significance of impacts upon the historic environment**

- a. The rarity of the heritage asset and any trends;
- b. The historic environment is an irreplaceable and finite resource and hence, impacts are unlikely to be reversible;
- c. The critical importance of a thorough understanding of the historic environment and a robust baseline so that significant adverse impacts can be avoided or reduced and potential benefits maximised;
- d. The inextricable link between the historic and natural environment and the character of the landscape;
- e. The potential for cumulative impacts: when considering impacts on the historic environment, care must be taken before concluding that impacts on individual heritage assets are not significant. This is because:
  - individual assets can have local, regional or national significance through scarcity or associations with similar assets, e.g. a particular building type or earthwork, ridge and furrow;
  - cumulative minor impacts on a range of individual assets can become significant;
  - the effect of small impacts, or loss of features, which are not significant individually may become significant, e.g. loss of character of a Conservation Area.

16.16 Where a proposed development will lead to substantial harm to, or total loss of, significance of a designated heritage asset, planning permission would be refused, unless it can be demonstrated that substantial public benefits will outweigh the substantial harm or loss. In any exceptional case of over-riding national importance, where a Scheduled Monument would be affected, prior Scheduled Monument Consent from Historic England is required, under other legislation<sup>170</sup>, as well as planning consent.

### **Landscape, visual impact and design**

16.17 National policies provide for the protection of Heritage Coast, National Parks and Areas of Outstanding Natural Beauty; these are set out in paragraphs 114 and 115 of the NPPF. The protection of other valuable landscapes from unacceptable adverse effects of developments is intended to be achieved by the use of the Cumbria Landscape Character Assessment Toolkit. It enables the distinctive characteristics of a landscape to be assessed, its sensitivity to development to be evaluated and its "capacity" to accept development to be determined. Development proposals, and their restoration schemes, will be considered against these findings and will be expected to be compatible with landscape character and distinctive features.

16.18 Modern waste management facilities need to be in sustainable locations, to reduce "waste miles" and to ensure that impacts on climate change and the environment are minimised. These modern facilities will often be within buildings and should be located where possible on brownfield or industrial

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<sup>170</sup> Ancient Monument and Archaeological Areas Act 1979

land. In Cumbria, such land is often highly visible from high quality or sensitive landscapes or coasts. Policy DC18 requires high quality of design, and sensitive siting, to ensure that adverse effects are minimised.

#### **POLICY DC18 Landscape and visual impact**

Proposals for development should be compatible with the distinctive characteristics and features of Cumbria's landscapes and should:

- a. avoid significant adverse impacts on the natural and historic landscape;
- b. use Landscape Character Assessment to assess the capacity of landscapes to accept development, to inform the appropriate scale and character of such development, and guide restoration where development is permitted;
- c. in appropriate cases, use the Guidelines for Landscape and Visual Impact Assessment to assess and integrate these issues into the development process;
- d. ensure that development proposals avoid significant adverse visual impacts and consider the effects on: locally distinctive natural or built features; scale in relation to landscape features; public access and community value of the landscape; historic patterns and attributes; and openness and remoteness;
- e. ensure high quality design of modern waste facilities to minimise their impact on the landscape, or views from sensitive areas, and to contribute to the built environment;
- f. direct minerals and waste developments to less sensitive locations, wherever this is possible, and ensure that sensitive siting and high quality design prevent significant adverse impacts on the principal local characteristics of the landscape including views to or from, and the setting of, Areas of Outstanding Natural Beauty, the Heritage Coast, National Parks or World Heritage Sites.

#### **Flood risk and water resources**

16.19 The river systems, lakes and groundwater resources of Cumbria, form a unique resource, and contribute significantly to the character and perceptions of the county. Many of them are internationally and nationally important for wildlife and are protected as Special Areas of Conservation, Special Protection Areas, Ramsar sites or Sites of Special Scientific Interest. These aspects of the water environment are covered under the strategic and biodiversity policies in this Plan, but the protection of water resources needs to be considered alongside the increasingly important issues of flood risk (policy DC19) and the prudent use of these resources (policy DC20).

16.20 National policy on flood risk is set out in the NPPF<sup>171</sup> and in chapter 7 of the Planning Practice Guidance (PPG). The aim is to steer new development to areas with the lowest probability of flooding and to reduce the causes and impacts of flooding<sup>172</sup>. It includes: a sequential approach for determining appropriate locations for development, based on the indicative Flood Maps prepared by the Environment Agency; an Exception Test, to assess whether

<sup>171</sup> NPPF paragraphs 93 to 108

<sup>172</sup> PPG paragraphs 50 to 53, chapter 7 (ID: 7-050-20140306, 7-051-20150323, 7-053-20140306)

development should be permitted in higher risk areas; and a “hierarchy of options”, to reduce and manage surface water run-off from development sites in high rainfall events<sup>173</sup>.

- 16.21 Strategic Flood Risk Assessments were carried out in 2015, to inform the preparation of the Minerals and Waste Local Plan; this work was undertaken in collaboration with the County Council’s flood risk team and in consultation with the Environment Agency and United Utilities.
- 16.22 As Lead Local Flood Authority (LLFA), Cumbria County Council has powers and duties for managing flooding from local sources, namely Ordinary Watercourses, surface water (overland runoff) and groundwater, but not from main rivers, such as the Eden or Kent. A Preliminary Flood Risk Assessment<sup>174</sup> was carried out by the Council in 2011, which identified areas of significant flood risk in the county, making particular reference to local historic flood data, which was followed by the Local Flood Risk Assessment<sup>175</sup>, to help the Council develop a flood risk strategy for managing local flooding in the county. Early engagement with the Local Flood Risk Team by developers is encouraged.
- 16.23 For planning applications on sites not allocated in the Local Plan, which fall in identified areas of flood risk, the Sequential Test<sup>176</sup> and, where appropriate, the Exception Test<sup>177</sup>, will usually need to be carried out. All waste proposals should consider the sequential test but, as mineral deposits can only be worked where they are located, and as they fall into the ‘less vulnerable’ or ‘water compatible’ definitions within the test process (see Table 16.1), this may not always be appropriate for mineral proposals. Where appropriate, mineral operators should take the sequential approach into consideration when siting ancillary equipment or buildings, which may be vulnerable to flood risk even if the quarrying itself is water compatible, and the design of the phasing of working.
- 16.24 Waste developments can be ‘less vulnerable’ or ‘water compatible’ where the risk of pollution is low, and appropriate in flood zones 2, 3a and even 3b (see Glossary). Where there is risk of pollution, the development may fall into a higher vulnerability, and if the sequential test shows that there are no other suitable sites for the development, and the site fails to pass the Exception Test, the planning application should be refused. This is incorporated into policy DC19.

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<sup>173</sup> PPG paragraphs 79 to 80, chapter 7 (ID: 7-079-20150415, 7-080-20150323)

<sup>174</sup> Evidence Base document reference RD25: Preliminary Flood Risk Assessment: Cumbria, June 2011

<sup>175</sup> Evidence Base document reference LD292: Local Flood Risk Management Strategy, Cumbria County Council, March 2015

<sup>176</sup> PPG paragraph 33, chapter 7 Flood Risk and Coastal Change (ID: 7-033-20140306)

<sup>177</sup> PPG paragraph 35, chapter 7 Flood Risk and Coastal Change (ID: 7-035-20140306)



Table 16.1: Vulnerability of minerals and waste developments and their compatibility with flood zones

<b>Vulnerability of minerals and waste development</b>	<b>Flood Zone Compatibility</b>
<b>Highly vulnerable development</b>	
installations requiring hazardous substances consent	appropriate in Zone 1, Exception Test required for Zone 2
<b>More vulnerable development</b>	
landfills and sites used for hazardous waste management facilities	appropriate in Zone 1 and 2, Exception Test required for 3a
<b>Less vulnerable development</b>	
mineral workings and processing (except sand and gravel)	appropriate in Zone 1, 2 and 3a; not in Zone 3b
waste treatment facilities (except landfill and for hazardous wastes)	
sewage treatment plants, if adequate pollution control measures are in place	
water treatment works that do not need to remain operational during times of flood	
<b>Water-compatible development</b>	
sand and gravel workings	permitted in all Zones, including 3b
sewage transmission infrastructure and pumping stations	
docks and wharves	

- 16.25 The other policies in this Local Plan reflect the Plan’s Sustainability Appraisal, and the Council will consider conformity with these policies as an indicator that the first part of the Exception Test has been met. Specific policy for waste water treatment plants is included in policy DC9; however, if necessary, mitigation and management measures would be considered under policy DC19.
- 16.26 Site Specific Flood Risk Assessments (FRA), to demonstrate that the development will be safe and will not cause flooding elsewhere, are required according to criteria set out by the Environment Agency; however, the Local Planning Authority has specific responsibilities that require the FRA to be submitted with the planning application, in order to facilitate a robust consultation process with the Environment Agency and the LLFA team. Early discussion, prior to applications being submitted, is advised for large or complex proposals in areas of flood risk, to ensure that the necessary issues are addressed in the FRA. Advice and guidance is given on <https://www.gov.uk/planning-applications-assessing-flood-risk>, and also in <http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/addressing-flood-risk-in-individual-planning-applications>.
- 16.27 The Environment Agency’s prior written Flood Defence Consent is required for any works in, under, over or within 8 metres of the top of the bank of a designated ‘Main River.’ The prior written consent of the LLFA is required for any works that will impede the flow of an ‘Ordinary Watercourse’ (i.e. a non-main river).

- 16.28 PPG chapter 7<sup>178</sup> was amended in March and April 2015 to support NPPF paragraph 103, and clarifies Local Planning Authority (LPA) responsibilities to seek opportunities to reduce the overall level of flood risk in the area and beyond. This reinforces the need for adequate management of surface water displaced from development, and requires LPAs to consider planning applications for new major development in areas at risk of flooding, only if priority has been given to the use of sustainable drainage systems<sup>179</sup>.
- 16.29 In minerals and waste development proposals, key issues with respect to surface water discharges include both water quality and quantity issues. The first choice for sustainable drainage should be to reduce surface water discharge by appropriate soakaways and other infiltration systems, followed by attenuating (i.e. holding back) high flows of water during heavy rainfall. Discharging (uncontaminated) water to suitable water courses or surface water sewers are both more sustainable than discharging to combined sewers.
- 16.30 The LPA will consult United Utilities (UU), the statutory undertaker responsible for waste water and sewage, on all planning applications that have the potential to increase discharge to public surface water or public combined sewers. UU will require clear evidence demonstrating why alternative options are not available; providing such information with any relevant planning application will save developers considerable time.
- 16.31 Approved development proposals will be expected to be supplemented by appropriate maintenance and management regimes for surface water drainage schemes. On large sites it may be necessary to ensure the drainage proposals are part of a wider, holistic strategy which co-ordinates the approach to drainage between phases, between developers and over a number of years of construction. On greenfield sites, applicants will be expected to demonstrate that the current natural discharge solution from a site is at least mimicked. On previously developed land, applicants should target a reduction of surface water discharge.
- 16.32 Proposals should consider what contribution the landscaping of a site can make to reducing surface water discharge; this can include hard and soft landscaping, such as permeable surfaces. The treatment and processing of surface water is not a sustainable solution; it should be managed at source and not transferred. Every option should be investigated before discharging surface water into a public sewerage network. A discharge to groundwater or watercourse may require the consent of the Environment Agency.
- 16.33 Advice and guidance on the 'hierarchy of drainage options' and sustainable drainage is available at:  
<http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/reducing-the-causes-and-impacts-of-flooding/why-are-sustainable-drainage-systems-important/>

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<sup>178</sup> PPG paragraph 050, chapter 7 Flood Risk and Coastal Change (ID 7-050-20140306)

<sup>179</sup> PPG paragraph 079, chapter 7 (ID: 7-079-20150415) and NPPF Para 103

## **POLICY DC19 Flood risk**

All proposed minerals and waste management developments should be located, wherever possible, in areas with the lowest probability of flooding (Zone 1).

Development proposals will not be considered without a site-specific Flood Risk Assessment, appropriate to the scale, nature and location of the development, for:

- 1 hectare or greater in Flood Zone 1; or
- new development (including minor development and change of use) in Flood Zones 2 and 3, or in an area within Flood Zone 1 that has critical drainage problems (as notified to the Local Planning Authority by the Environment Agency); or
- where proposed development or a change of use to a more vulnerable class may be subject to other sources of flooding.

The Flood Risk Assessment should assess potential effects from current and future flooding from all sources, whether it would increase flood risk elsewhere and measures to deal with these effects and risks.

Considerations will include the hierarchy of drainage options, reduction and/or attenuation of surface water run-off and the minimising of discharge to public sewers, except where a need for pollution control indicates otherwise.

Minerals and waste development on sites where national policy and guidance require the Exception Test to be applied, will only be permitted if it has been demonstrated that:-

- a. the development provides wider sustainability benefits to the community that outweigh the flood risk; and
- b. the development will be safe for its lifetime, taking account of the vulnerability of its users, without increasing flood risk elsewhere and, where possible, will reduce flood risk overall.

Minerals and waste developments that reduce flood risk downstream of the proposal would be supported.

Minerals and waste development proposals should incorporate sustainable drainage systems unless they are demonstrated to be inappropriate.

16.34 Minerals and waste developments also have the potential to deplete or pollute surface waters (e.g. streams, rivers and lakes), which have value as drinking resources or for the species which rely on them. This can be as a result of mineral extraction below the watercourse, chemicals or waste contaminants, soil and silt carried in surface water run-off during construction activities, or erosion of river banks due to excess water run-off.

16.35 The Environment Agency is consulted on all minerals and waste management planning applications and provides advice on the protection of surface and groundwater resources. The identified groundwater protection zones in

Cumbria cover only a small proportion of the groundwater resources that are used for water supplies.

- 16.36 Proposals will, therefore, be required to demonstrate that they do not have unacceptable adverse impacts on water resources. Any adverse impact should be avoided or, if unavoidable, suitable mitigation measures should be proposed. Unacceptable quantitative or qualitative impacts are those which are deemed so by the Environment Agency, as part of the planning application process.
- 16.37 Sites proposed for development will need to be subject to site specific hydro-geological assessment, in order to determine their acceptability. Some factors influencing this process are the type of facility, the pollution control measures adopted, the potential impacts on groundwater resources and the groundwater vulnerability of the site.
- 16.38 With respect to mineral applications, there is a requirement to establish the relationship that the development has with the water table. If the base of the excavation is near or below the anticipated water table, then there will be a requirement to establish an appropriate monitoring scheme. In some circumstances, the development may be considered unacceptable if it is carried out below the level of the water table.
- 16.39 The current licensing exemption on dewatering is likely to be removed in 2017, subject to Ministerial approval, after which, dewatering activities will be brought into regulation by the Environment Agency.

#### **POLICY DC20 The water environment**

Proposals for developments should demonstrate that they would have no unacceptable quantitative or qualitative adverse effects on the water environment, both within the application site and its surroundings, including surface waters, coastal waters, private water supplies and groundwater resources. Proposals that minimise water use and include sustainable water management will be favoured.

#### **Land quality and soil resources**

##### *Protection and management of soil resources*

- 16.40 Soils are a vital, natural resource, that form the foundation of much of the county's landscape, land use and wildlife interests and serve a wide range of essential functions. Soils are also a "carbon sink" that can either sequester or emit carbon, depending on their condition and temperature. The Natural Environment White Paper<sup>180</sup> emphasises the importance of natural resource protection, including the conservation and sustainable management of soils. This covers the protection of Best and Most Versatile agricultural land, as well as safeguarding soils in order to achieve a range of important ecosystem services and functions, such as food production, carbon storage and climate

<sup>180</sup> The Natural Choice: securing the value of nature, Defra, June 2011

regulation, water filtration, flood management and support for biodiversity and wildlife.

- 16.41 Some types of development have not always appreciated the need to protect soil resources, and they are under threat from a number of processes including: climate change, compaction, erosion, loss of biodiversity, loss of organic matter, contamination and the sealing that occurs when impermeable materials such as concrete and asphalt are superimposed on valuable soil.
- 16.42 Soils may overlie valuable mineral resources, particularly sand and gravel. Even in the case of valuable agricultural land, this may not prevent development as long as the soil resources are protected, and restoration is to the highest standards. The waste developments expected over the period of the Plan are less likely to involve valuable soil resources if the Strategic Policies' site selection criteria are used, which favour the use of brownfield sites. This is in line with paragraph 112 of the NPPF.
- 16.43 National policy<sup>181</sup> requires Mineral Planning Authorities to “safeguard the long-term potential of Best and Most Versatile agricultural land, and conserve soil resources in a sustainable way”. The County Council has secured the management and protection of soil resources on minerals and waste development through conditions on planning consents and agreed operations programmes. Typically, planning permissions require topsoil and subsoil to be stripped and stored separately in grassed mounds of appropriate height and shape before a site is developed or traversed by heavy vehicles or machinery. The soils have to be retained for use in the restoration schemes that are required to be submitted with planning applications. These can specify details of soil handling and replacement, secure land forms that avoid soil erosion and enable after-care management operations to be carried out.
- 16.44 Returning organic matter to soil, such as agricultural wastes and sewage sludge, is considered to be advantageous in some circumstances, but is managed under other regulatory regimes.

*Best and Most Versatile agricultural land*

- 16.45 “Best and Most Versatile” (BMV) agricultural land is defined as that in Grades 1, 2 and 3a under the Defra system of Agricultural Land Classification<sup>182</sup> (ALC). NPPF paragraph 143 requires that high quality restoration and aftercare of mineral sites takes place, including, for agriculture, safeguarding the long term potential of best and most versatile land and conserving soil resources.
- 16.46 This policy will apply particularly to greenfield sites, especially where the site includes BMV agricultural land. Where no reliable or sufficient data is available to inform decision making, soils and land quality surveys may be required to provide a definitive record of the soil quality prior to the proposals; the ALC grading is only indicative and it may be necessary to undertake a new

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<sup>181</sup> NPPF paragraph 143, bullet 8

<sup>182</sup> Evidence Base document reference ND42: Agricultural Land Classification: protecting the best and most versatile agricultural land, Natural England, Technical Information Note TIN049, Edition 2, December 2012

ALC survey. Planning application proposals would need to demonstrate that soil would be protected, explain how any adverse impacts on soil resources or the irreversible loss of high quality land would be mitigated, and include a soil handling and replacement strategy, to demonstrate that a satisfactory standard of reclamation would be achieved for the proposed afteruses. Restoration, aftercare and afteruse are covered more broadly in the following section.

#### **POLICY DC21 Protection of soil resources**

Proposals for minerals and waste development will be required to demonstrate that:

- a. the long-term potential of Best and Most Versatile agricultural land will be safeguarded;
- b. soil resources are conserved and maintained in viable condition to be used in restoration of the site; or
- c. where developments are permanent and restoration is not envisaged, that soil resources are used effectively on undeveloped areas of the site, or used appropriately on other suitable sites.

#### **Restoration, aftercare and afteruse**

- 16.47 It is particularly important that sites of temporary developments are properly restored and that restoration is appropriate to the character of the area. If high standards of restoration are not achieved, the trust necessary for further developments is undermined. Problems may arise from technical failure more often than financial failure and the risk of problems may be significantly reduced when restoration is progressive, i.e. is phased during the working life of the development. National policy guidance is very specific with regard to restoration of sites for minerals extraction, and confirms that Local Plans should include policies to ensure that worked land is reclaimed at the earliest opportunity and that high quality restoration and aftercare takes place<sup>183</sup>.
- 16.48 Strategic Policy SP16 affirms that restoration of sites should use best practicable measures to deliver sustainability objectives relating to the environment and the economy of the county. It is essential that planning applications establish an appropriate afteruse for mineral working and temporary waste management sites and ensure that resources are secured for that afteruse to be successfully established once restoration is complete.
- 16.49 Separate planning consent is required for many types of afteruse and will usually be determined by the District planning authority<sup>184</sup>. However, uses that commence before the completion of extraction and/or restoration of a minerals or waste site, and which have the potential to affect operations, restoration or aftercare conditions, will be determined by the County Council as the mineral planning authority<sup>185</sup>.

<sup>183</sup> PPG paragraph 037, chapter 27 Minerals (ID: 27-037-20140306)

<sup>184</sup> PPG paragraph 046, chapter 27 Minerals (ID: 27-046-20140306)

<sup>185</sup> Paragraph (h) of Schedule 1 of the Town and Country Planning Act 1990

- 16.50 All afteruses will be considered in the light of realistic assumptions about the availability of restoration materials, particularly inert waste. Aftercare can only be required for agricultural, forestry or amenity afteruses and most sites have been restored for these. There has been a presumption that agricultural afteruse should be required where the loss of land would adversely affect the economic viability of an agricultural holding.
- 16.51 Sites on the Best and Most Versatile agricultural land should usually be restored, where practicable and appropriate, to retain its longer term capability, though the proposed afteruse need not be for agriculture. In appropriate situations, other uses will be encouraged that contribute to the movement from a net loss of biodiversity towards achievement of net gains in biodiversity resources, required by Strategic Policy SP15. It is important to restore wildlife habitats that may have declined as a consequence of development at the site or within the local area, to strengthen regional and functional ecological and green infrastructure networks, and to contribute to UK and Cumbria Biodiversity Framework (Action Plan) targets. This reflects paragraphs 109 and 114 of the NPPF.
- 16.52 Schemes that are designed with an appropriate habitat for the prevailing conditions, and demonstrated to be both technically and economically feasible, will be favoured. This is because they are more likely to create self-sustaining habitats and require minimum intervention and long term management. On large sites, a mix of compatible uses may provide the best balance for the future; for example, low intensity agricultural use, tourism and nature conservation. Some restored sites can also be designed to fulfil a role as educational assets. Where feasible, peat extraction sites should be restored to peat regeneration, in order to minimise greenhouse gas emissions and to re-commence carbon sequestration; this is consistent with PPG chapter 6, Climate Change, paragraph 003.
- 16.53 The success of reclamation schemes based on landscape, recreation and nature conservation enhancement will, however, sometimes depend not only on a well-funded and effective 5-year scheme of aftercare being implemented, but also provision for the longer-term management of the land. Non-profit generating afteruses (e.g. leisure, amenity, nature conservation, etc.) may require applications to provide long-term management proposals to demonstrate how such uses will be sustainable in the longer-term. The mineral planning authority cannot require any steps to be taken after the end of a 5-year aftercare period without the agreement of the mineral operator, as set out in PPG chapter 27, Minerals, paragraph 052.
- 16.54 Prospective developers may demonstrate how they propose to make provision for the proper reclamation of their sites either through membership of an established and properly funded industry guarantee scheme, or by the provision of a bond or other financial guarantee, prior to the commencement of development. The exceptional circumstances where financial contributions or agreements may be required are referred to in PPG chapter 27, Minerals, paragraph 048. Table 16.2 suggests how the Plan's specific Strategic Objectives could be met by different afteruses, in locations where they are compatible with other development plan policies, including District Councils' Local Plans.

Table 16.2: Afteruse options in relation to Strategic Objectives of the Plan

Strategic Objective	Afteruse options
1. To minimise the impacts of climate change on people and the environment	Some mineral workings may have potential for flood water storage to mitigate flood risk. When extraction has finished, peat workings should be restored to peat generating vegetation wherever feasible. Long-lived woodland species could be planted on other suitable sites. A minimum standard could be to replace the carbon capture capability of the site before development.
8. To optimise local economic benefit	Enhance and preserve the economic viability of agricultural undertakings where land has been temporarily used for minerals or waste development; afteruses should either be agricultural, farm diversification activities or employment land. Other opportunities may be available, particularly where waste facilities were on brownfield sites.
9. To protect and enhance natural and historic environmental assets	Enhance biodiversity through nature conservation after-uses that protect and enhance species and habitats that either pre-existed on minerals and waste sites or for which the site has potential. Provide for enhancement of the historic environment, including industrial archaeology; and/or select an after-use that contributes to the local landscape character. Aftercare programmes that are properly financed may be essential to achieve and sustain high quality restoration.
10. To reduce the proportion of development on greenfield sites	Built development can deliver social and economic benefits on former minerals and waste sites if the local highways network is suitable for the traffic generated.

16.55 Planning applications for mineral working, waste management and associated development are determined by the County Council as they are “County Matter” applications under Schedule 1(i) of the Town and Country Planning Act 1990 and the Town and Country Planning (Prescription of County Matters) (England) Regulations 2003. The County Council will, therefore, have control over afteruses whilst a site is classified as an ‘active’ minerals site<sup>186</sup>. Afteruses will fall under the remit of the County Council unless separate planning permission is required from the District Council for the proposed afteruse, e.g. a use that would involve substantial public use.

16.56 The County Council can also impose aftercare conditions, which require the necessary steps to be undertaken to bring land to the required standard for whichever of the following uses is specified in the condition, namely: (i) use for agriculture; (ii) use for forestry; or (iii) use for amenity. This is set out in Section 2(1) of the Town and Country Planning Act 1990.

<sup>186</sup> An active site is one where mineral operations are currently being carried out to a substantial extent; this definition includes ‘mothballed’ sites, if they are subject to ongoing restoration or aftercare. A site will be considered ‘active’ until the end of any aftercare period, as specified in any planning conditions.



- 16.57 Policy DC22 seeks to secure the most appropriate and sustainable restoration, aftercare and afteruse of sites. This will be achieved through suitable planning conditions and, where necessary, planning obligations. The planning conditions should be framed with the intended after-use in mind.

#### **POLICY DC22 Restoration and aftercare**

Proposals for minerals extraction, or for temporary waste facilities such as landfill, shall be accompanied by restoration and aftercare proposals with sufficient detail to clearly demonstrate that the overall objectives of the scheme are practically achievable, including a vision for overall restoration of the site, and to include proposals for appropriate afteruse and the means to achieve it. The level of detail required will depend on the circumstances of each specific site including the expected duration of operations on the site. In all cases, restoration schemes must demonstrate that the land is stable and that the risk of future collapse of any mine workings has been minimised.

After-uses that enhance biodiversity, geodiversity and the environment, conserve soil resources, conserve and enhance the historic environment, increase public access, minimise the impacts of global warming and are appropriate for the landscape character of the area, will be encouraged. These could include: nature conservation, agriculture, leisure and recreation, green infrastructure and woodland.

Where sites accord with other policies in the Plan, an alternative or mixed afteruse that would support long term management, farm diversification, renewable energy schemes, tourism or employment land, may be acceptable.

All proposals must demonstrate that:

- a. for agricultural, forestry, nature conservation and amenity afteruses, there is an aftercare management programme of at least 5 years, but longer where required to ensure that the restoration scheme is established;
- b. the restoration is appropriate for the landscape character and wildlife interest of the area, and measures to protect, restore and enhance biodiversity and geodiversity conservation features are practical, of a high quality appropriate to the area and secure their long-term safeguarding and maintenance;
- c. the restoration scheme is compatible with neighbouring land uses;
- d. restoration will be completed within a reasonable timescale and is progressive as far as practicable;
- e. provision for the likely financial and material budgets for the agreed restoration, aftercare and afteruse will be made during the operational life of the site;
- f. restoration and aftercare (or reclamation) will be undertaken using industry best practice.

Once peat workings have become non-operational, they should be restored to peat regeneration wherever feasible, using best practicable measures. Where such re-generation is not demonstrably feasible, the detailed restoration scheme should minimise carbon loss and maximise both habitat re-creation and carbon sequestration capacity across the site.

## 17. IMPLEMENTATION AND MONITORING

### Monitoring the Plan

- 17.1 Monitoring is an important part of evidence-based policy making. The NPPF states that local planning authorities should ensure that the Local Plan is based on adequate, up-to-date and relevant evidence about the economic, social and environmental characteristics and prospects of the area<sup>187</sup>. The Cumbria MWLP, therefore, requires a monitoring schedule to ensure that the Plan remains based on up-to-date evidence and also to measure the effectiveness of its aims.
- 17.2 The monitoring and implementation framework set out in this chapter, will show how the Strategic Objectives of the MWLP will be achieved by identifying and monitoring appropriate data indicators for each of the Plan's policies. The monitoring of each indicator will be carried out as part of the Cumbria Authority Monitoring Report (AMR). Policies may be subject to review if annual monitoring indicates that there have been significant, adverse trends that are likely to continue.
- 17.3 Where monitoring triggers a need to review one or more policies, Cumbria County Council will identify appropriate corrective action to address the matter which, depending on the cause and/or significance of the issue, may include:
- review of the County Council's decision making;
  - review of targets;
  - revision of an individual policy;
  - revision of the Plan.
- 17.4 Following the enactment of the Localism Act 2011, it is now the responsibility of each local authority to decide what to include in their monitoring reports, while ensuring that they are prepared in accordance with relevant UK and EU legislation. Indicators will be used to assess performance of the Plan. The indicators that are most directly relevant for minerals and waste in Cumbria are:
- 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;
  - sales of industrial minerals;
  - production of secondary and recycled aggregates;
  - landings of marine dredged aggregates;
  - capacity of new waste management facilities by type;
  - municipal waste arisings and management methods;
  - commercial and industrial waste arisings and management methods;
  - construction and demolition waste arisings and management methods;
  - radioactive waste arisings and management methods.

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<sup>187</sup> National Planning Policy Framework (paragraph 158)

- 17.5 Reliable data is available from surveys for most of these indicators, but as discussed in chapter 3, there are particular concerns about details of commercial, industrial, construction and demolition wastes and secondary and recycled aggregates.
- 17.6 The approach taken to monitoring should be objective and target led. It is not necessary to monitor everything, or monitor an effect indefinitely; instead, monitoring should be focused on significant effects. Monitoring should involve measuring performance against indicators, which may establish a causal link between implementation of the Plan and the likely significant effects being monitored. The results of monitoring will also play an important role in informing Development Control decisions, when the Council determines planning applications for new waste facilities.

### Implementation and monitoring framework

- 17.7 Monitoring data will be drawn from a wide range of sources, but four main documents will be used to provide evidence on the Plan's performance. Firstly, the annual Local Aggregates Assessment will give a rolling picture of aggregate reserves and associated landbanks. Secondly, the Waste Needs Assessment gives a snapshot in time of the quantity of waste arising in the county, as well as the capacity of the waste management network to deal with that waste. Thirdly, the UK Radioactive Waste Inventory gives a snapshot in time of radioactive wastes and nuclear materials. Fourthly, the annual Authority Monitoring Report assesses the overall performance of the Plan in terms of:
- are policies achieving their objectives, and is sustainable development being delivered;
  - have policies had the intended consequences;
  - are the assumptions and objectives behind policies still relevant;
  - are the targets set in the Local Development Framework being achieved.
- 17.8 The Plan area covers a number of different authorities and involves a variety of different actors. Table 17.1 summarises the organisations involved in the implementation of the Plan.

Organisation	Role	Responsibilities
County Council	apply Plan policies	Assess suitability of mineral and waste applications against Plan policies and priorities
	regulate/monitor	Inspect operating mineral and waste sites periodically. Monitor Plan performance annually
	performance delivery	Support/promote waste reduction initiatives through the planning system. Support/promote a steady and adequate supply of minerals through the planning system. Co-operate with all the following organisations, as well as adjoining or more distant Councils.

<b>Organisation</b>	<b>Role</b>	<b>Responsibilities</b>
District/Borough/ City Councils	apply Plan policies	Identify applications affecting safeguarded sites and areas, mineral safeguarding areas and strategic areas
Landowners	infrastructure delivery	Propose new minerals and waste sites in sustainable areas and sites that deliver capacity requirements.
Waste industry	infrastructure delivery	Propose new waste sites in sustainable areas and sites that deliver capacity requirements. Prioritise management of locally arising waste in local, rather than more distant, facilities.
Minerals industry	Infrastructure delivery	Propose new minerals sites in sustainable locations that deliver a steady and adequate minerals supply.
The Environment Agency	regulate/ monitor	Advise on planning applications according to the nature of the proposal. Assess applications for Environmental Permits. Inspect operating waste sites periodically. Collect and publish information about waste movements for use in Plan monitoring. Regulate nuclear and non-nuclear industry sites Regulate radioactive waste disposal
	performance delivery	Promote waste reduction initiatives
The Health and Safety Executive	regulate/ monitor	Advise on planning applications according to the nature of the proposal.
Other statutory bodies (e.g. Natural England)	regulate/ monitor	Advise on planning applications according to the nature of the proposal.
Nuclear Decommissioning Authority	implement/ monitor	Implement Government policy on the long term management of radioactive waste. Ensure that radioactive wastes are safely managed. Develop the LLW Strategy on behalf of Government. Own assets of a number of the UK's nuclear licensed sites
Office for Nuclear Regulation	regulate/ monitor	Regulate nuclear licenced sites. Regulate adherence to nuclear site licence conditions. Regulate radioactive waste storage

Table 17.1: Roles and responsibilities involved in implementing the Plan

17.9 A monitoring schedule has been prepared (see Appendix 5), which shows how the Plan will be monitored in relation to its policies. However, the County Council will also seek to monitor other elements relating to the Local Plan and

its implementation, including site allocations, national infrastructure projects, time extensions to permissions at key facilities, minerals and waste production and their cross-border movements, although recognising that, at present, the availability of this information is limited. Therefore, a further monitoring schedule is set out as Table 17.2, which shows how the Plan will be monitored in relation to these non-policy events.

17.10 The policy monitoring schedule sets clear objectives, with, where possible, targets and indicators that are Specific, Measurable, Achievable and Realistic and, where appropriate, Time bound (SMART); it also identifies trigger points at which it is appropriate to address any issues emerging. The non-policy monitoring schedule is simpler, consisting of a non-exhaustive list, but also sets out triggers, of which there is a very wide range; generally, these non-policy triggers form Contextual Indicators. These measure background events and circumstances that have a bearing on policy performance – the social, economic and environmental context in which the Plan and its policies operate.

17.11 As set out in paragraph 17.7, the monitoring process involves preparation of the annual Authority Monitoring Report, the annual Local Aggregates Assessment and the biennial Waste Needs Assessment, all of which use data gathered from planning permissions, site monitoring visits, case officers, nationally available data, etc., as well as reference to the UK Radioactive Waste Index. These reports will highlight any implementation problems, and the need for the strategic approach, policies or site allocations to be reviewed.

17.12 The Local Plan is intended to be a robust document, suitable for setting the direction of development locally for the next 15 years. Nevertheless, changing conditions may be so significant as to require a review or partial review of the Local Plan, including, potentially, a call for new minerals or waste sites. This latter example, may only take the form of a public consultation on alternative sites and then an Addendum to the Plan; however, every circumstance will be different and judged on its impacts at the time of arising.

<b>Contextual Indicator</b>	<b>Trigger for review of the Plan</b>	<b>Action</b>
<b>Social, Economic or Environmental</b>		
National Park extension areas in Cumbria	<p>a - Yorkshire Dales National Park Authority and/or Lake District National Park Authority adopt the Cumbria Minerals and Waste Local Plan for the new National Park areas</p> <p>b - YDNPA and/or LDNPA prepare and adopt their own MWLP covering the new National Park areas</p>	<p>a – addendum note to be added to Cumbria MWLP</p> <p>b – addendum note to be added to Cumbria MWLP</p>
HSE Safety Report for Barrow Gas Terminals	<p>a – site allocation M27 (Roose sand quarry) falls wholly within an incident effect zone, that would preclude future sand and gravel extraction</p> <p>b - site allocation M27 falls partly within an incident effect zone</p>	<p>a – M27 becomes unavailable and future mineral extraction will be directed to M12</p> <p>b – if sufficient resource lies outside the zone, future mineral extraction will be directed to that part of M27</p>

	<p>c – site allocations M27 and M12 (new sand and gravel quarry at Roose) fall partly within an incident effect zone</p> <p>d - site allocations M27 and M12 fall wholly within an incident effect zone</p>	<p>c - if sufficient resource lies outside the zone, future mineral extraction will be directed to that part of M27 or M12</p> <p>d – incorporate data into LAA; partial review, with call for site(s) and public consultation</p>
Landbank for industrial minerals	any changes to sales and/or reserves of industrial minerals that would significantly alter the current 120-year landbank	incorporate data into LAA; partial review, with call for site(s) and public consultation
<b>Nationally Significant Infrastructure Projects</b>		
Moorside new nuclear power station	<p>a – significant increase in demand for aggregates during construction</p> <p>b – significant increase in excavation wastes arising during construction, that may need management facilities and/or disposal routes</p> <p>c – radioactive waste arising from new operations, that may need management facilities and/or disposal routes</p>	<p>a - incorporate data into LAA; consider whether a call for site(s) and public consultation is required</p> <p>b - incorporate data into WNA; engage operator in discussion on uses of inert waste at other NSIPs; consider whether a call for site(s) and public consultation is required</p> <p>c - consider whether a call for site(s) and public consultation is required; may result in full or partial review</p>
Geological Disposal Facility (GDF)	<p>a - site is chosen within Cumbria, construction work begins, significant increase in demand for aggregates</p> <p>b - site is chosen within Cumbria, construction work begins, significant increase in excavation wastes arising</p> <p>c - site is chosen outside Cumbria, Higher Activity Waste movements begin</p>	<p>a – incorporate data into LAA; consider whether a full or partial review is required</p> <p>b - incorporate data into WNA; engage operator in discussion on uses of inert waste at other NSIPs; consider whether a full or partial review is required</p> <p>c - consider whether a full or partial review is required</p>
Other NSIPs in Cumbria	<p>a – significant increase in demand for aggregates during construction</p> <p>b – significant increase in excavation wastes arising during construction, that may need management facilities and/or disposal routes</p>	<p>a - incorporate data into LAA; consider whether a call for site(s) and public consultation is required</p> <p>b - incorporate data into WNA; engage operator in discussion on uses of inert waste at other NSIPs; consider whether a call for site(s) and public consultation is required</p>
<b>Planning permissions</b>		
Time extensions	<p>a – currently operating non-inert and inert landfills are not granted a time extension, resulting in loss of landfill capacity</p> <p>b - currently operating composting facilities are not granted a time extension, resulting in loss of composting capacity</p>	<p>a - incorporate data into WNA; consider whether a call for site(s) and public consultation is required; may result in full or partial review</p> <p>b - incorporate data into WNA; consider whether a call for site(s) and public consultation is required</p>
Energy from Waste	planning permission at site allocation CA31 (Kingmoor Park East) not implemented, resulting in thermal waste treatment capacity gap	incorporate data into WNA; future capacity to be directed to other suitable site allocations (AL3, AL8, AL18)

<b>National policy changes</b>		
Naturally Occurring Radioactive Materials	radioactive waste arising from industrial operations, that may need management facilities and/or disposal routes	consider whether a call for site(s) and public consultation is required; may result in full or partial review
Spent fuels and exotic spent fuels	if policy changes and they come to be regarded as a waste, management facilities or disposal routes may be needed	consider whether a call for site(s) and public consultation is required; may result in full or partial review
Plutonium and uranium	if policy changes and they come to be regarded as a waste, management facilities or disposal routes may be needed	consider whether a call for site(s) and public consultation is required; may result in full or partial review

Table 17.2: Non-policy monitoring schedule

### **Duty to Co-operate (DtC)**

17.13 The Council's obligation to undertake the preparation and review of the Local Plan, in co-operation with specific organisations, also needs to be recognised in the approach to monitoring. In strategic terms, the Minerals and Waste Local Plan needs to have recognition of, and potential to align with, the plans of partners and organisations with cross-over interests and policy linkage. Hence, where the plans or practice of others is evolving and responding to external factors, then this may need to be taken into account in the monitoring and review of the Local Plan. The Council will, therefore, ensure that the outcome from the annual monitoring exercise is shared with those bodies identified in the legislation relating to DtC, and continue to engage as appropriate, to recognise changing circumstances.





## **PART 3**

### **SITE ALLOCATIONS POLICIES**

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## **18. SITE ALLOCATIONS**

### **Introduction**

- 18.1 The Site Allocations Policies and the accompanying Policies Map have to identify the sites and areas of land that will be required to implement the Minerals and Waste Local Plan's strategic policies for working and safeguarding minerals and for managing wastes. The most directly relevant Strategic Policies are SP3, 5, 6, 7, 8 and 9. The policies list the types of sites and areas of land that need to be identified, and each of the types of areas for safeguarding minerals.
- 18.2 The identification of a site is not a presumption that planning permission will be granted. If, and when, a planning application is submitted, it will be considered against the Strategic and Development Control Policies. Comments and constraints regarding particular sites are set out in the Site Assessment and Sustainability Appraisal documents. These refer to issues relating to the development of the sites and to the potential for complying with the requirements of policy SP15 (Environmental assets) and policy DC16 (Biodiversity and geodiversity), in connection with Cumbria's environmental assets and with the County Council's Biodiversity Duty under Section 40 of the Natural Environment and Communities Act 2006. Furthermore, it is not intended that the entire footprint of an allocation would necessarily be developed; rather, a larger area is identified in order to provide the scope to incorporate undeveloped or enhanced areas for habitats and species. A detailed development scheme for each of the site allocations would need to take account of biodiversity interests at the planning application stage.

### **Household Waste Recycling Centres (HWRCs)**

- 18.3 Policy SP3 (Waste capacity) states that the Plan will identify alternative sites only for those HWRCs that are required to be replaced. The current understanding is that those are: Kendal Canal Head, which is a temporary site, too small for the current operations, on land that has development potential and needs to be vacated; and both Clay Flatts (Workington) and Frizington, which are to be replaced by a single, more modern and efficient facility at Lillyhall. These three existing HWRCs cannot, under the terms of the municipal waste contract, close until the replacement sites are built and ready to operate; otherwise, targets for recycling and diversion of waste from landfill could not be met.
- 18.4 Additional sites were proposed in the Minerals and Waste Development Framework, to establish small HWRCs at Appleby and Cockermouth, plus replacements at Millom and Maryport, but plans have been curtailed by austerity measures. This will be kept under review in the annual Authority Monitoring Reports.

**POLICY SAP1 Household waste recycling centres (HWRC)  
(sites of around 0.5 to 1.0 ha)**

Appropriate applications at the following sites will be supported:

- AL37 Lillyhall industrial estate to replace the HWRCs at Clay Flatts, Workington, and at Frizington  
 SL1B Land adjacent to Kendal Fell Quarry, to replace the HWRC at Canal Head

**Waste treatment and management facilities**

18.5 In accordance with Policy SP3, policy SAP2 identifies seven sites to accommodate a need for three additional facilities during the Plan period, as predicted by the Waste Needs Assessment. The sites may be required for mixed recycling, materials recovery, transfer stations or thermal treatments (Energy from Waste). It is not considered that all the sites allocated would be suitable for the whole range of waste management facilities; an indication of which sites are suitable for what uses is set out in Table 18.1. The table excludes: HWRCs, as these are covered within SAP1; landfill, as no such sites are allocated; and composting, because if a replacement composting facility is required for either Hespian Wood or Thackwood, as discussed in paragraph 3.63, that may require an alternative location to be considered under policy DC9 (Criteria for waste management facilities).

Site Ref	Site Name	Authority	Waste Facility Type		
			Materials recovery/mixed recycling facility (MRF) and transfer stations accepting non-putrescible waste only	Transfer stations accepting putrescible waste	Thermal treatment (EfW)
AL3	Oldside	Allerdale	√	√	√
AL8	Lillyhall Waste Treatment Centre	Allerdale	√	√	√
AL18	Port of Workington	Allerdale	√	-	√
CA11	Willowholme	Carlisle	√	√	-
CA30	Kingmoor Road recycling centre	Carlisle	√	-	-
CA31	Kingmoor Park East	Carlisle	-	-	√
CO11	Bridge End Industrial Estate	Copeland	√	-	-

Table 18.1: Suitability of waste facility types  
 source: Cumbria County Council

**POLICY SAP2 Waste treatment and management facilities  
(sites of around 2 to 4 ha)**

The following sites are identified as suitable, in principle, for waste management facilities, in line with the waste facility types listed in Table 18.1. Proposals on the allocated sites for other facility types, not listed within the table, shall be assessed against Policy DC9.

AL3	Oldside, Workington
AL8	Lillyhall Waste Treatment Centre, Workington
AL18	Port of Workington
CA11	Willowholme, Carlisle
CA30	Kingmoor Road recycling centre, Carlisle
CA31	Kingmoor Park East, Carlisle
CO11	Bridge End Industrial Estate, Egremont

**Broad Areas**

The following existing industrial estates have the potential to support further waste management provision, if facilities are appropriate to the type and scale of estate, and proposals conform to other relevant policies of the Plan:

BRO1	Lillyhall Industrial Estate, Workington
BRO2	Sowerby Wood Estate, Barrow
BRO3	Park Road Estate, Barrow
BRO4	Gilwilly Industrial Estate, Penrith
BRO5	Kingmoor Park Rockcliffe Estate, Carlisle

- 18.6 It is acknowledged that it may be possible to demonstrate a need for additional waste treatment or management facilities on unallocated sites and, therefore, it is not intended to use policy SAP2 restrictively. The Broad Areas were identified as industrial areas, where waste facilities already exist, where waste arises from existing industries or where waste could be used as a resource; the list set out in SAP2 is not exhaustive, as opportunities for additional or improved waste management provision may come forward at other, new or existing, employment or industrial estates. Any proposals on unallocated sites will be considered against all other relevant policies in this Plan, and if they would meet an identified need in a timely manner.
- 18.7 Proposals for developments requiring smaller sites, extensions to existing waste management sites and proposals to treat or manage waste arising at commercial and industrial premises, are also likely to come forward during the Plan period. The location criteria that were used when identifying all the allocated sites, and the Broad Areas where waste treatment or management proposals may be suitable (which are both listed in chapter 3), would also be relevant considerations in the assessment of planning applications for such developments.

## Radioactive waste

- 18.8 There are currently permitted facilities in Cumbria for the treatment, management, storage or disposal of radioactive wastes at: Cyclife (formerly Studsvik), Lillyhall (treatment of metal for recycling); the Sellafield complex (the Calder Landfill Extension Segregated Area, for disposal of certain types of the site's own wastes; metal treatment; decontamination facilities; waste compaction facilities; and facilities for higher activity waste); and at the Low Level Waste Repository, near Drigg. Lillyhall landfill has an Environmental Permit from the Environment Agency, for disposing of a full range of wastes including municipal, hazardous (asbestos), commercial and industrial, and Very Low Level radioactive waste. The other operating non-inert landfill sites in Cumbria – Hespian Wood near Carlisle, Flusco near Penrith and Bennett Bank near Barrow (currently due to close December 2017) – are likely to take very small amounts (“dustbin loads”) of hospital or research VLLW, which does not require permitting.
- 18.9 As indicated in the Strategic Policies section of this Local Plan, the County Council is the waste planning authority in Cumbria (outside of the National Parks). Hence, planning applications for waste, including radioactive waste, and associated development come under the Council's jurisdiction. The policies in this Plan will be used to determine the acceptability of waste-associated development at any of the above sites, and full consideration will be given to social, economic and environmental impacts. Strategic policy SP5 sets out the criteria for assessing planning applications for all activity ranges of Low Level Waste.
- 18.10 It is particularly important that facilities are provided, both within Cumbria and throughout the UK, to divert Low Level Waste, including the sub-category of VLLW, away from the highly engineered facilities at the Low Level Waste Repository (LLWR), in line with the UK Nuclear LLW Strategy. The volumes of these wastes will increase significantly as nuclear sites are decommissioned; some arisings are forecast<sup>188</sup> within the Local Plan period, but a significant increase is forecast around 2030.
- 18.11 Efforts continue to be made by the nuclear industry to improve the quality of the inventory of these wastes. However, uncertainties still remain, about the volumes of arisings, when they will arise, the potential for driving some of them up the waste hierarchy and the type of facilities that may be needed. What is clear is that a substantial proportion of decommissioning wastes will, as would be expected, arise at the Sellafield complex.

### *Cyclife Metal Recycling Facility*

- 18.12 Of the existing radioactive waste management and treatment sites in Cumbria, the metal recycling facility at Lillyhall held aspirations for further investment in the future, which would provide additional waste management capacity. The facility was sold by Studsvik to EDF Group in April 2016, and it is unclear if and when any additional capacity may become available. Any development proposals would require planning consent from the County Council. However, policy SAP3 safeguards this complex for the treatment and management of LLW within the Plan period.

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<sup>188</sup> United Kingdom Radioactive Waste & Materials Inventory, 1 April 2013, DECC and NDA

### *Lillyhall landfill*

- 18.13 In March 2014, Lillyhall landfill was granted planning permission for an extension of time, to continue landfilling operations until 2029. The permission also confirmed the waste types that the site could accept for disposal; this was to link the Environmental Permit for disposal of VLLW at the site with the planning permission. The Permit allows for the disposal of up to 582,000m<sup>3</sup> of VLLW at a rate of 26,000m<sup>3</sup> per year, in a dedicated cell, as part of a total waste disposal of 67,000m<sup>3</sup> per year. This would account for around 20% of the landfill site's overall capacity (the other 80% constituting a mix of the waste streams set out in paragraph 18.8).
- 18.14 Although the Sellafield complex has its own facility onsite (the CLESA) for the disposal of VLLW/Low Activity LLW, there are specific radioactive waste types that cannot be accommodated at this facility; those that can be accommodated are restricted to specific radionuclide limits and input is managed to ensure that capacity is available for putrescible wastes. Sellafield currently uses Lillyhall landfill for some of its waste arisings, as well as exporting lower activity LLW for disposal at permitted landfills out of the county. Therefore, retaining a facility in Cumbria that can accept the range of Sellafield's VLLW that cannot be sent to the CLESA or should not be sent to the highly engineered barrier system at the LLWR, would be in conformity with national policy regarding communities dealing with their own wastes. It is anticipated that Lillyhall landfill would provide a medium term solution to the disposal of these wastes, but it is expected that a longer term solution should be provided at Sellafield, either on site or adjacent, for their own wastes. Therefore, policy SAP3 safeguards this site for the disposal of VLLW within the Plan period.

### *Low Level Waste Repository*

- 18.15 Since 1959, most of the solid LLW generated in the UK has been transported to the LLWR near Drigg for disposal. When it became operational in 2009, Vault 9 provided temporary storage capacity for LLW (until December 2018) and further storage was supplied by the temporary higher stacking of waste containers in Vault 8 until March 2017. An application to change the storage in these vaults into disposal, and also to construct new vaults for disposal up to 2045, was granted permission by the County Council in July 2016. Only with further vault construction, will the LLWR have the capacity to meet all future national LLW needs.
- 18.16 Within the boundaries of the LLWR, there would certainly appear to be significant capacity for disposing of VLLW within the capping layer and infilling, that will be required over and between the existing permitted facilities. This is something that would need to be included in the site's Environmental Safety Case, and the Environment Agency would require further details from LLWR Ltd. to demonstrate that such disposals will be safe and meet all relevant regulatory criteria.
- 18.17 Policy SAP3 safeguards this site for the treatment, management and storage of LLW within the Plan period. The site also has the potential to be considered for additional capacity for the storage and/or disposal of the appropriate levels of LLW activity, either within the highly engineered containment facilities or outwith these facilities.

### *Sellafield complex*

- 18.18 The CLESA at Sellafield is licenced only to take Sellafield's VLLW and LA-LLW; it has a remaining capacity for disposal of approximately 70,000m<sup>3</sup>, which means that it is expected to be full around 2025. There has been some assessment undertaken on the capability of the 280ha Sellafield complex to accommodate facilities for managing LLW from its own decommissioning activities. Firstly, Sellafield Ltd carried out a feasibility study into where a future on or near site disposal facility (CLESA-2) may be located<sup>189</sup>, and it is anticipated that a more detailed scoping study will commence during FY 2017/18. The conclusion of that study or any future assessments will determine the opportunity or otherwise to accommodate CLESA-2 within the Sellafield complex (site allocation CO36). Where it has been demonstrated by rigorous assessment that it is not feasible to use land within CO36 in accordance with Policy SP4, or to utilise existing disposal routes, then consideration may be given to the use of land outwith CO36. Secondly, Sellafield Ltd is working on the Development of Sellafield Decommissioning Strategy (see paragraph 4.42) as the site currently has so many spatial constraints.
- 18.19 Policy SAP3 safeguards the Sellafield complex for continued LLW treatment (such as supercompaction) and management (i.e. consignment to appropriate treatment, storage or disposal facilities), as well as continued HAW treatment (such as vitrification) and storage, in site allocation CO36. The policy also identifies the Sellafield complex as an area of potential consideration for additional capacity for the disposal or storage of a range of radioactive wastes, subject to planning permission, should a proposal come forward within the Plan period.
- 18.20 The County Council would wish to continue to be an active partner in the progression and review of the strategy and site plans that the operator or owner (NDA) of the Sellafield complex has for the site's decommissioning.

### *Land adjacent to Sellafield*

- 18.21 The Local Plan identifies site CO32, land adjacent to Sellafield, in Policy SAP3 to provide the opportunity for use of land in the event that it has been demonstrated, after rigorous assessment, that it is not feasible to use land within CO36, in accordance with Policy SP4, or to utilise existing disposal routes. As part of the rigorous assessment, Sellafield Ltd will need to demonstrate how they are meeting the requirements of Policy SAP3. Subject to meeting the requirements of policies SP4 and SAP3, site allocation CO32 is identified for the potential development of CLESA-2 and the potential for temporary long or short-term storage of non-radioactive inert wastes arising during the demolition or excavation stages of decommissioning, linked to an approved Sellafield site decommissioning strategy. The non-radioactive inert wastes would be used in association with the phased restoration of site CO36, in accordance with the decommissioning strategy.

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<sup>189</sup> Evidence Base document reference LD214: Review of Potential Suitability for Disposal of LLW/VLLW on or Near to the Sellafield Site, Sellafield Ltd., February 2013



18.22 To reduce the wider impacts (such as noise, visual and transport) of any development on CO32, there is potential for this land to the east of Sellafield to be accessed from within the existing Sellafield nuclear licensed site.

*Policy*

18.23 It is considered that the Low Level Waste Repository, the Sellafield complex and land adjacent to it, can provide adequate capacity for the treatment, management, storage and/or disposal of appropriate levels of radioactive waste or non-radioactive inert wastes within Cumbria, subject to planning permission, throughout the Plan period.

**POLICY SAP3 Radioactive wastes treatment, management, storage and disposal**

Unless it can be demonstrated that it is no longer required, the capacity for the treatment, management, storage and/or disposal of currently permitted radioactive wastes will be safeguarded over the Plan period at the following existing sites:

- Sellafield complex (including former Windscale site)
- Low Level Waste Repository
- Lillyhall metal processing complex (Cyclife)
- Lillyhall landfill

The following sites are considered to be suitable locations for additional capacity, subject to the granting of planning permission:

- CO35 The Low Level Waste Repository, near Drigg  
CO36 Land within Sellafield

Subject to the granting of planning permission, the following site is considered to be a suitable location to provide additional capacity for:

- the storage of non-radioactive inert wastes from the Sellafield complex (CO36);
- the temporary treatment, management and/or storage of appropriate levels of lower activity radioactive waste from CO36;
- the disposal of lower activity radioactive waste from CO36 that would previously have been disposed in CLESA.

Proposals for development on the following site will be required to demonstrate that:

- there is a clear need that cannot be met within CO36, or via the use of other existing disposal routes;
- how the need is to be met;
- the use of any part of CO32 is proportionate in terms of scale, timescale and footprint;
- direct access is provided from site CO36, where appropriate.

- CO32 Land adjacent to Sellafield

## Minerals

### *Sand and gravel*

- 18.24 Policy SP7 requires that Preferred Areas and/or Areas of Search will be identified to enable a landbank for sand and gravel of at least seven years to be maintained throughout the Plan period, and Policy SP8 requires that Mineral Safeguarding Areas are identified for the indicative sand and gravel resources identified by British Geological Survey. The landbank is to be based on the annual Cumbria Local Aggregates Assessment (LAA).
- 18.25 The 2015 LAA calculated the sand and gravel landbank using the average annual sales between 2005 and 2014, which was 630,000 tonnes per annum (tpa). The landbank at the end of 2014 was 9.20 million tonnes, equivalent to 14.60 years on the 10-year average sales basis, so would last to the end of 2029. It should be noted that a landbank lasting until 2037 is required to ensure that there is still a 7-year landbank at the end of the Plan period, i.e. in 2030. The reserves required to meet the strategic policy could, therefore, fall within a range of between 4.41 million tonnes (7 years x 0.63 Mtpa) and 0.68 million tonnes (1 year x 0.68 Mtpa).
- 18.26 Further areas for sand and gravel extraction are, therefore, required and policy SAP4 allocates six sites (two at Roosecote) for sand and gravel extraction, all of which have been proposed by mineral operators as meeting their needs for the Plan period. These include areas nearby or adjacent to both Roosecote Quarry (site M27 and site M12) and Peel Place Quarry (site M15), which, as discussed in chapter 5, have been identified in policy SP9 as strategic locations for resources of sand and gravel in the south west of the county.
- 18.27 The existing Roose Quarry and the proposed Preferred Area for its future extension (M27) lie adjacent to existing gas terminals. Recent engineering work at the terminals has led to consolidation of gas processing at the north terminal, which in conjunction with the Rivers Terminal is closest to M27, and this work is likely to have increased the potential impact of any incident at the terminal on land within M27. The results of the new safety case for gas processing, being prepared for the Health & Safety Executive, are not scheduled for issue until some time in 2017. Whilst it is acknowledged that this consolidation, and perhaps future operations on the terminals estate, may impact upon the feasibility of M27 to be worked for sand and gravel, the County Council consider that this is an important site that will help to provide an adequate and steady supply of this mineral over the Plan period; therefore, the site has been retained as a strategic allocation. However, a clear and robust monitoring framework has been developed, which would trigger a review of the Local Plan, if necessary, once the information becomes available regarding the feasibility of the site for future minerals extraction. Any review of the Plan could lead to the removal of this site or to the consideration of a smaller area, as appropriate.

### *Crushed rock for general aggregate use*

- 18.28 Policies SP7 and SP8 require that Mineral Safeguarding Areas and/or Areas of Search will be identified for the indicative hard rock resources identified by

British Geological Survey. It was considered that there was no need to identify further provision for the release of general crushed rock aggregate because of the size of the current landbank. However, one Area of Search for limestone is identified in policy SAP4 at Silvertop Quarry, which has been proposed in order to secure environmental improvements. The Mineral Safeguarding Areas part of the Policies Map shows the extent of the known geological resources for crushed rock.

#### *High and very high specification roadstones*

- 18.29 Policy SP7 requires Preferred Areas and/or Areas of Search to be identified to enable continued quarrying of regionally important high specification roadstone (HSA). Therefore, two Areas of Search are identified in policy SAP4 for HSA. These are the areas that were identified as strategic locations for these minerals in policy SP9, near Holmescales and Roan Edge quarries. The Mineral Safeguarding Areas for these aggregate resources, identified by British Geological Survey, are shown on the Policies Map Part 2.

#### *Slate and other building stones*

- 18.30 There are currently no specific allocations of Preferred Areas and/or Areas of Search for local building stones, arising from Policy SP7. The sole allocation of an Area of Search at Kirkby Slate Quarry was to ensure the steady and adequate supply of slate; this also required a Mineral Safeguarding Area for identified resources of this mineral. Policy SP9 identifies the area around Kirkby Slate quarry as a strategic location for this resource within the Plan area; however, following planning permission granted in November 2016, policy SAP4 no longer identifies an Area of Search at the quarry. Proposals for other building stone quarries will be supported where they meet the criteria set out in Policy DC12 of the Plan.

#### *Mudstones and brick clay*

- 18.31 Policies SP7 and SP8 require provision of an area to enable continued quarrying of brick-making mudstones and also for safeguarding of this nationally important resource, as well as that of brick clay. Policy SP9 identifies the area around High Greenscoe Quarry as a strategic location for brick-making mudstones. Policy SAP4 identifies an Area of Search at the quarry.

#### *Gypsum*

- 18.32 Policy SP7 requires that a Preferred Area and/or Area of Search will be identified for working additional gypsum and Policy SP8 requires a Mineral Safeguarding Area for the remaining gypsum resources. The Birkshead mine is working the last of the gypsum resources that can be won through underground mining. In the Preferred Area identified, the gypsum is too shallow to be worked that way and would have to be quarried. Policy SP9 identifies Kirkby Thore/Long Marton as a strategic location for future working of this nationally important resource. Policy SAP4 identifies a Preferred Area at Stamphill.

- 18.33 Gypsum has raised questions, about how the Mineral Safeguarding Areas should be defined, that are not found for other minerals. The geology map shows the outcrops of the gypsum beds, but significantly larger areas of land than the outcrop would be needed to extract the gypsum. For example, an earlier proposal for the Staphill Preferred Area was for an extraction area of around 25 hectares, but required an area three times as large as that to accommodate its operational needs, including screen mounds and temporary overburden storage.
- 18.34 The Mineral Safeguarding Area has been drawn more broadly than the geological resource as an indication of the areas of land that would be likely to be needed for working the gypsum resources. In the Minerals and Waste Development Framework, the identification of Areas for gypsum raised concerns relating to the possibility that they could cause a long period of blight on properties. The issue was exacerbated by the very localised occurrence of gypsum compared with the other minerals that were being safeguarded. In response, it was agreed during the Examination of the MWDF documents that areas of gypsum resources, which may become economically viable in the future, should be included in the Mineral Safeguarding Areas.
- 18.35 Policy SAP4 identifies both Preferred Areas and Areas of Search for a range of quarries in Cumbria, which will enable a steady and adequate supply of these minerals over the Plan period. As set out in paragraph 5.84, the Preferred Areas are areas of known resources, where planning permission might reasonably be anticipated; such areas may also include essential operations associated with mineral extraction. Areas of Search are broader areas, where knowledge about mineral resources may be less certain, but within which planning permissions for particular sites could be granted, particularly if there is a potential shortfall in supply.

#### **POLICY SAP4 Areas for minerals**

To enable a steady and adequate supply of minerals: Preferred Areas are identified where there are known mineral resources; Areas of Search are identified where knowledge of the mineral resource is less certain.

##### **Preferred areas**

- M18 Staphill, Long Marton, for gypsum  
M27 land adjacent to Roosecote sand and gravel quarry, Barrow-in-Furness

##### **Areas of Search**

- M5 land adjacent to High Greenscoe Quarry, near Dalton-in-Furness, for brickmaking mudstones  
M6 land between Overby and High House sand and gravel quarries, near Abbeytown  
M8 land adjacent to Cardewmires sand and gravel quarry, near Dalston  
M10 land adjacent to Silvertop limestone quarry, near Brampton  
M11 land adjacent to Kirkhouse sand and gravel quarry, near Brampton  
M12 land near to Roosecote sand and gravel quarry, Barrow-in-Furness  
M15 land adjacent to Peel Place sand and gravel quarry, near Gosforth

- M16 land adjacent to Holmescales high specification roadstone quarry, near Kendal
- M30 land adjacent to Roan Edge high specification roadstone quarry, near New Hutton

### **Sites for secondary or recycled aggregates facilities**

In addition to existing recycling facilities at waste management sites and elsewhere, the hard rock quarries are considered to be suitable locations for processing alternative aggregates from their quarry wastes and from recycled aggregates.

- M24 Derwent Howe Slag Bank, Workington, is a Mineral Safeguarding Area for its resource of secondary aggregate.

### **Safeguarding existing and potential railheads and wharves**

- 18.35 The NPPF requires mineral planning authorities to safeguard selected mineral related infrastructure and facilities to support the continued extraction and operation of economically viable mineral resources. Policy SP8 requires the need to consider safeguarding existing and potential railheads and wharves. Therefore, policy SAP5 identifies ‘potential’ railheads, existing railheads and existing wharves. This is in line with paragraph 143 of the NPPF, which requires the safeguarding of infrastructure that facilitates bulk transport of minerals by rail, sea or inland waterways. All of the sites identified in the policy lie within the Mineral Safeguarding Areas, and thus within the Mineral Consultation Area.
- 18.36 Paragraph 31 of the NPPF also requires Local Authorities to work with neighbouring authorities regarding the provision of viable infrastructure necessary to support sustainable development, including large scale rail facilities. There are several quarries in Cumbria that are located in the Lake District National Park, whilst their rail infrastructure is located in the County Council’s domain – these are Shap Beck and Shap Blue quarries. During the Examination of the Park’s Local Plan (Part Three: Mineral Safeguarding Areas), the Inspector made reference to the fact that these quarries straddle the National Park boundary, and that it is the responsibility of the County Council, as the minerals authority for that area, to safeguard their rail-links<sup>190</sup>.
- 18.37 The existing, dedicated rail links in to both Sellafield nuclear licensed site and the Low Level Waste Repository, are safeguarded. This is to ensure their continued use for movement of radioactive wastes, as well as for the import of building materials, where appropriate, thus minimising their transport by road. Similarly, the existing rail sidings at Kirkby Thore plaster and plasterboard works are safeguarded, for both import and export of materials. The works are an important local employer, and Eden’s emerging Local Plan<sup>191</sup> identifies Kirkby Thore as a key hub, which will be the focus for development to sustain

<sup>190</sup> Report on the Examination into the Lake District National Park Minerals Safeguarding Areas (Local Plan Part Three), the Planning Inspectorate, September 2013

<sup>191</sup> Evidence Base document reference LD306: Eden Local Plan: Proposed Submission Version 2014-2032, October 2015

local services, including the provision of employment. Sellafield and the LLWR are important for employment in Copeland Borough; the Sellafield complex alone employs around 40% of the Borough's workforce. Copeland's Policy ER1 – Planning for the Nuclear Sector<sup>192</sup>, supports the contribution that Sellafield and the LLWR make to the economy.

- 18.38 It was also considered prudent to safeguard rail sidings associated with bulk waste imports or exports. Firstly, the rail sidings at Kingmoor north of Carlisle have been identified, as Network Rail Infrastructure import large quantities of old rail ballast to these sidings, process it and then export the recycled aggregate around the UK. Secondly, the sidings located at Innovia in Wigton have been identified, as the company previously looked into building an Energy from Waste plant on their land to deal with the large amounts of waste arising on site. The company manufactures a variety of films that are used in the packaging, labelling and over-wrapping industries, and is an important local employer in Allerdale.
- 18.39 Policy SAP5 identifies one potential railhead, AL32. The site was put forward during the MWDF process, in connection with the transport of coal. However, the associated coal site was rejected, but the potential railhead retained, as the large manufacturing companies located nearby could use a railhead for import of materials or export of products or waste.
- 18.40 Three working ports have been identified in SAP5, two of which (Workington and Barrow) also have rail sidings. The port at Barrow is linked to the M6 motorway by the A590 and also has a direct connection to the national rail network. The port handles limestone, sand, aggregates (including marine dredged landings) and granite, as well as condensate, the liquid by-product of gas production at Centrica's nearby gas terminals. The port also supports the offshore wind, oil and gas industries. BAE Systems' ship-building facility is located within the port and it handles nuclear fuel-carrying vessels from a dedicated terminal. This port is an important asset for Barrow Borough Council, who has an adopted Barrow Port Area Action Plan<sup>193</sup>.
- 18.41 The Port of Workington is owned by the County Council and is connected via the A66 trunk road to the M6. Imports and exports include dry and liquid bulks, and forest products. The Port is utilised by the offshore wind industry, who undertake their operations and maintenance from the site. Rail freight services are offered via the main line connection. All berths are rail-connected and the Port Authority operates its own locomotives on the site's extensive internal rail system. The Port also handles nuclear fuel-carrying vessels. Allerdale Borough Council's vision<sup>194</sup> is to take advantage of the port and its rail links as part of the focus for major development at Workington, delivering a stronger employment base.

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<sup>192</sup> Evidence Base document reference LD243: Copeland Local Plan 2013-2028: Core Strategy and Development Management Policies, December 2013

<sup>193</sup> Evidence Base document reference LD169: Barrow Port Area Action Plan, Barrow Borough Council, July 2010

<sup>194</sup> Evidence Base document reference LD273: Allerdale Local Plan Part 1: Strategic and Development Management Policies, July 2014

18.42 The port at Silloth has good road connections with the M6, providing easy access to the north and north east of England and southern Scotland. Grain is imported and discharged directly into Carrs Flour Mills on the north side of New Dock, and other agribulks are imported for onward supply to the region's farming industry. Wood pulp is imported for local use. Allerdale's vision in their Local Plan is to maintain and enhance the role of the port.

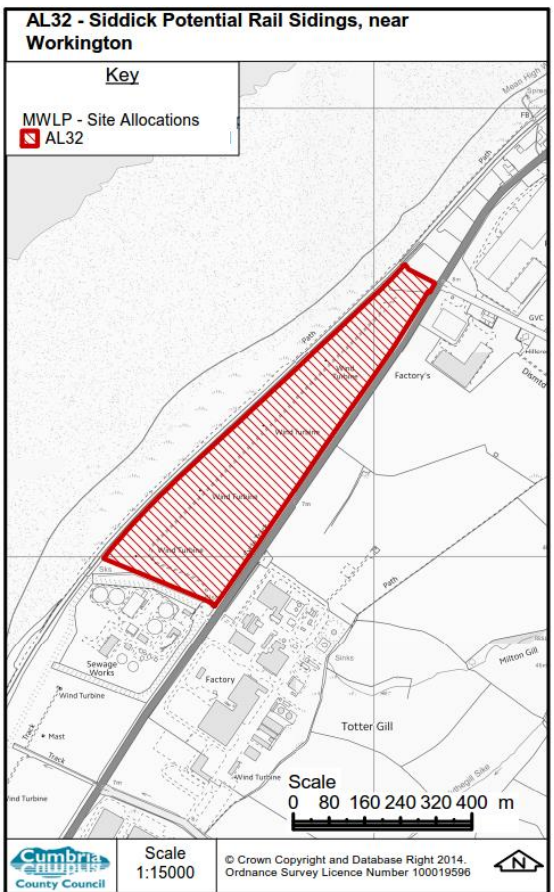
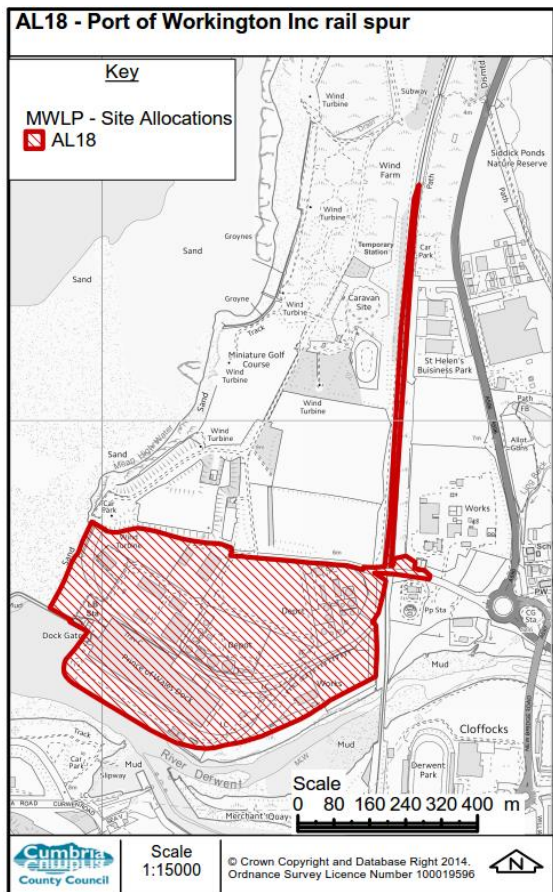
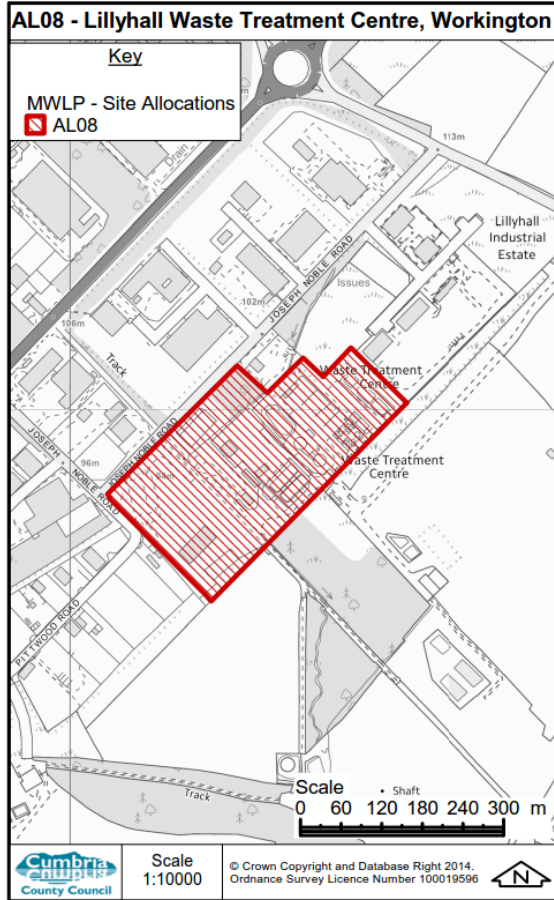
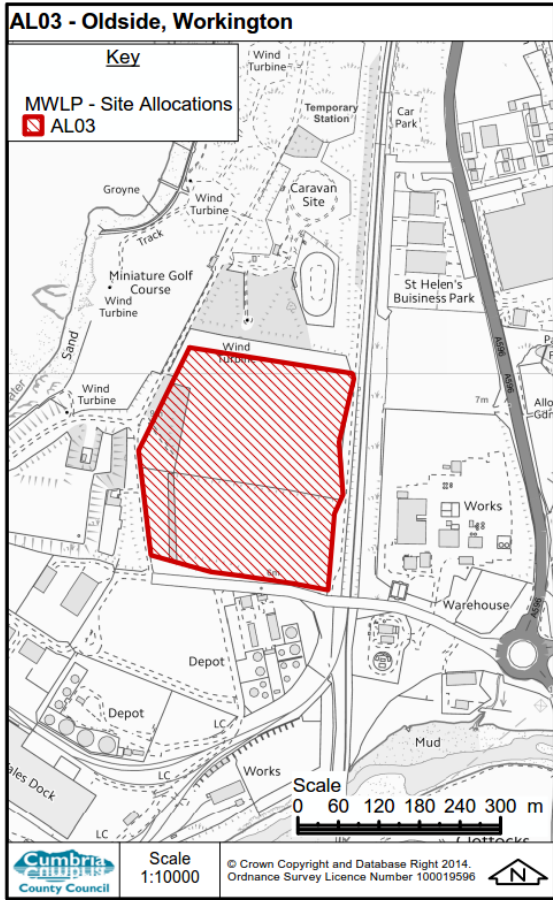
**POLICY SAP5 Safeguarding of existing and potential railheads and wharves**

The following existing and potential railheads and wharves are safeguarded, in line with paragraph 143 of the NPPF.

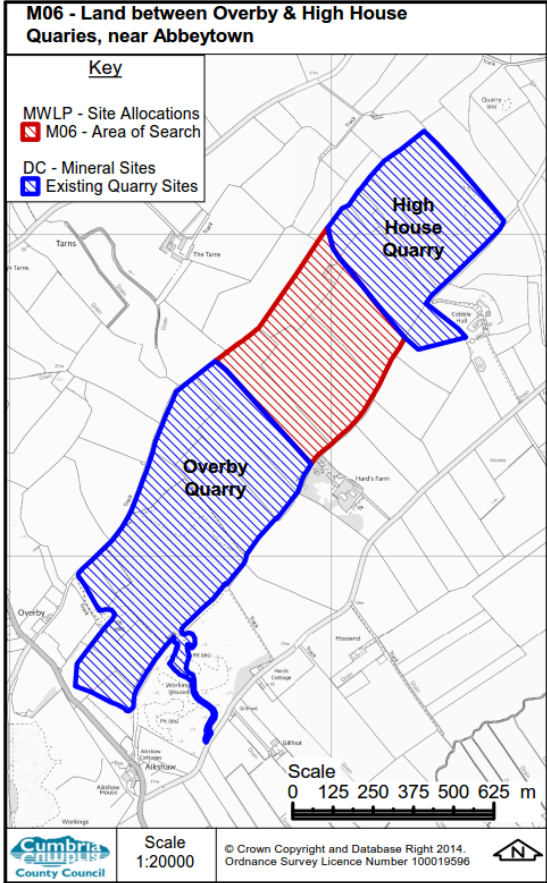
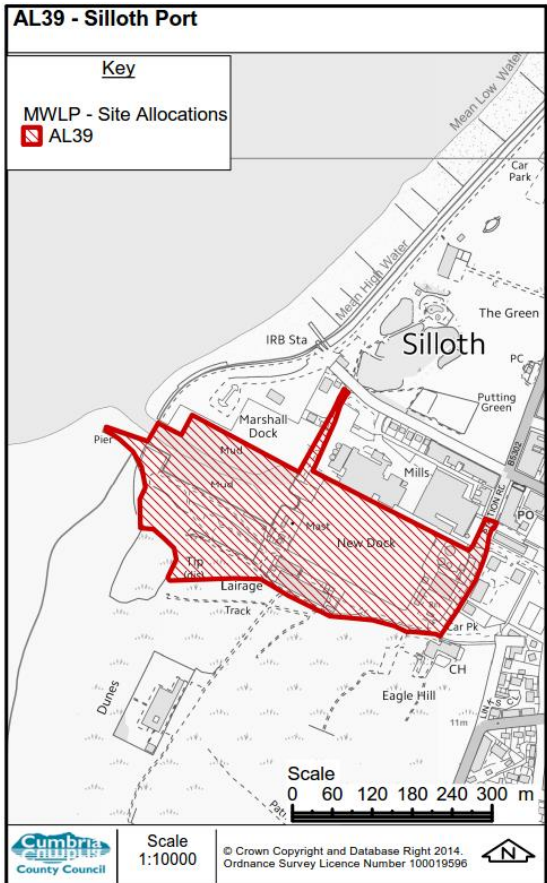
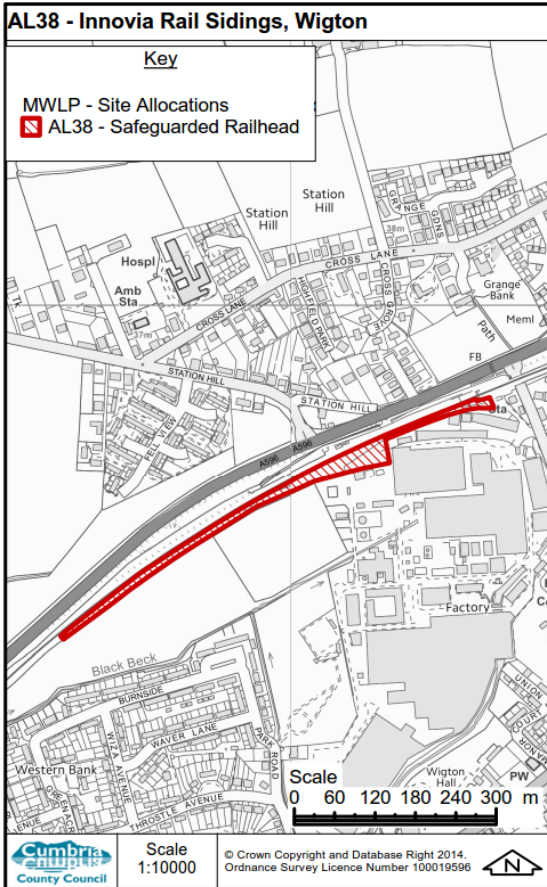
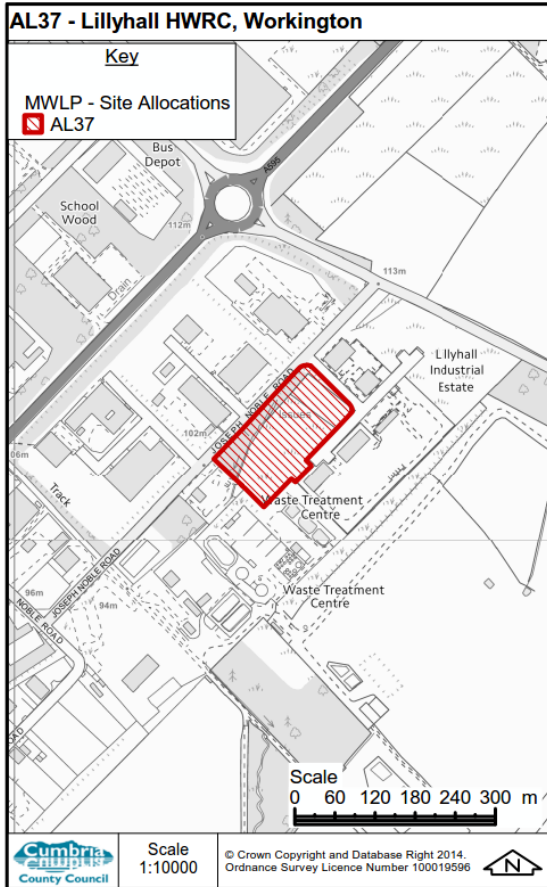
- AL18 Port of Workington and railhead
- AL32 Siddick potential rail sidings
- AL38 Innovia rail sidings, Wigton
- AL39 Silloth Port
- BA26 Barrow Port and rail sidings, Barrow
- CO35 Low Level Waste Repository rail spur, Drigg (within LLWR site allocation)
- CO36 Sellafield site rail spur (within Sellafield site allocation)
- M34 Kingmoor rail sidings, Carlisle
- M35 Shap Beck Quarry rail sidings, Shap
- M36 Shapfell Quarry rail sidings, Shap
- M37 Shap Blue Quarry rail sidings, Shap
- M38 Kirkby Thore gypsum works rail sidings, Kirkby Thore

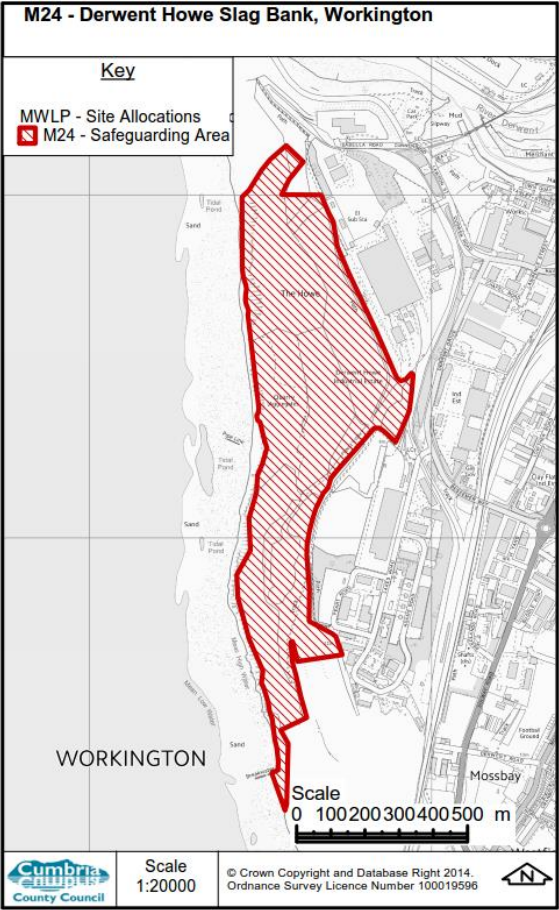
# 19. MAPS OF SITE ALLOCATIONS

## Allerdale

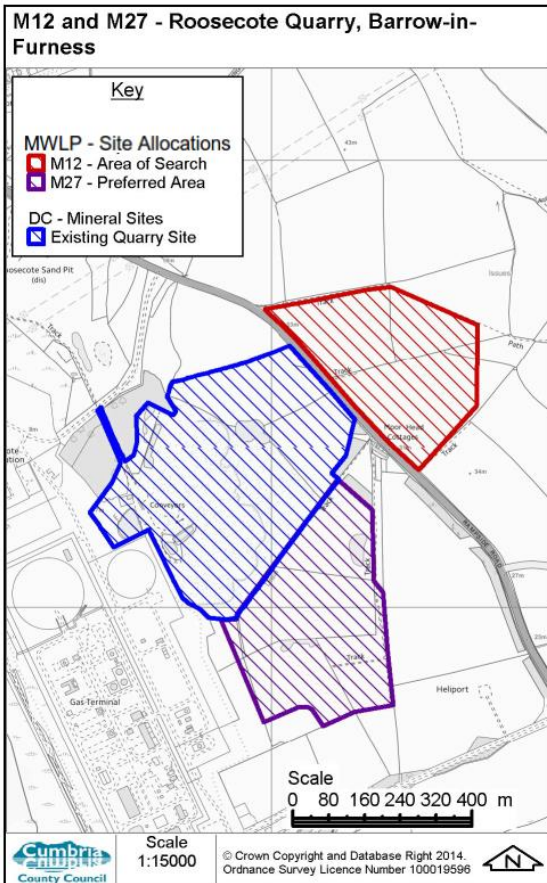
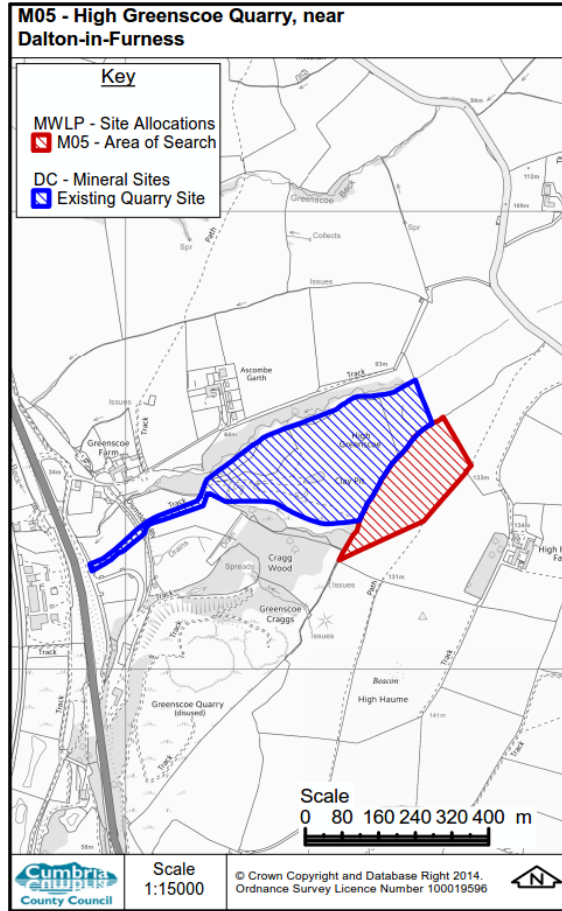
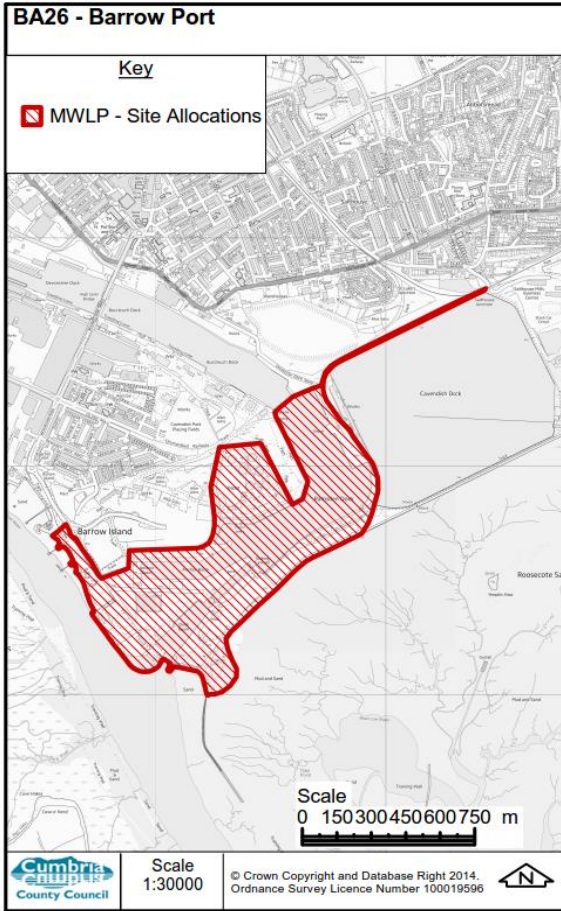




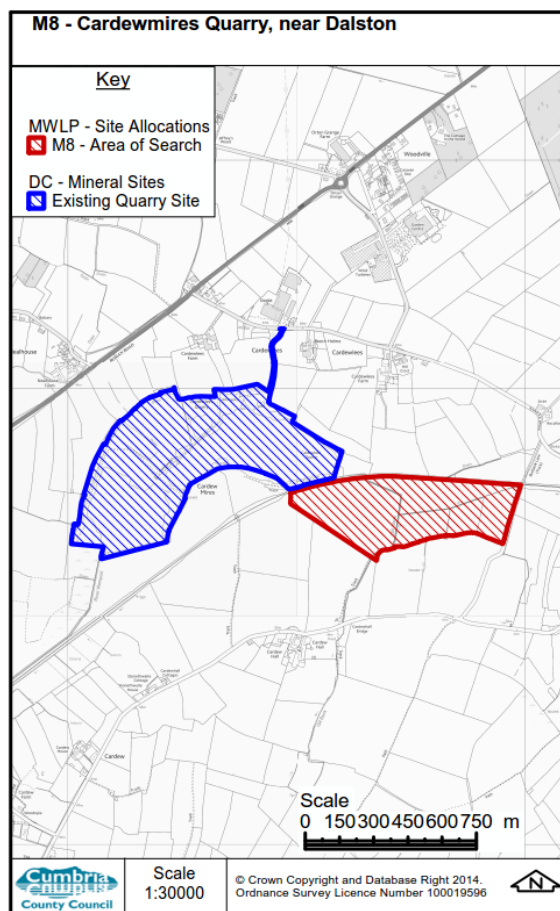
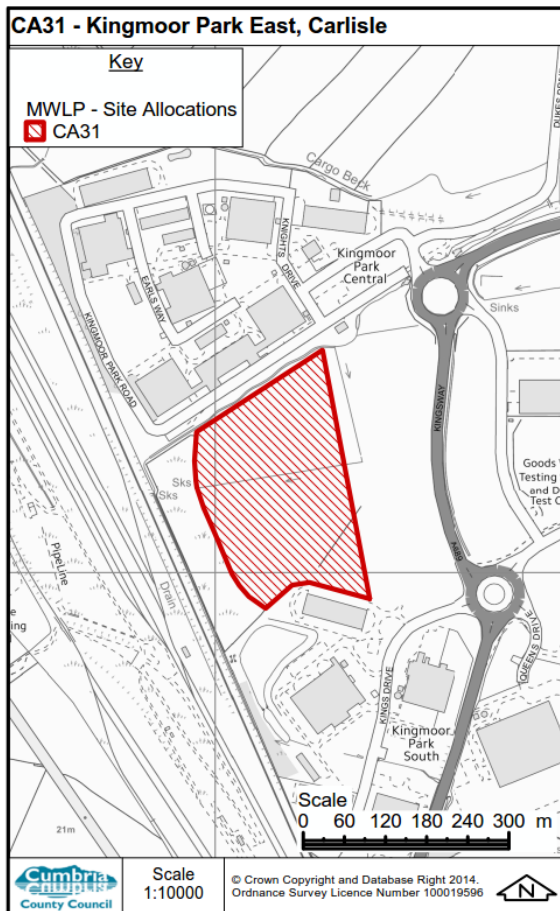
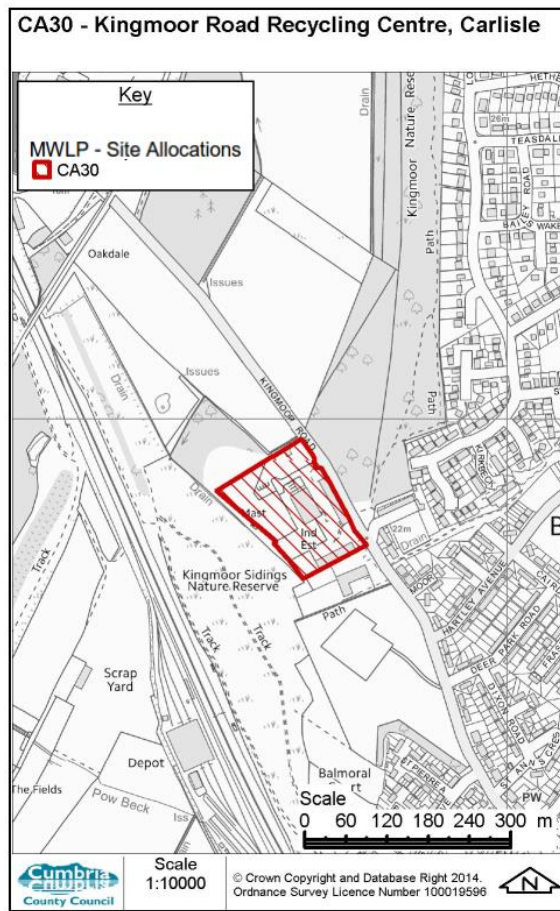
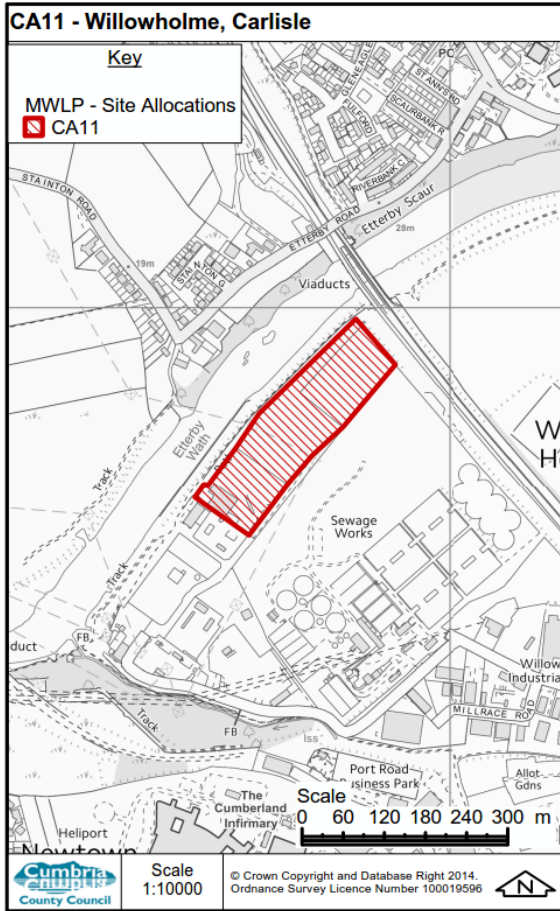


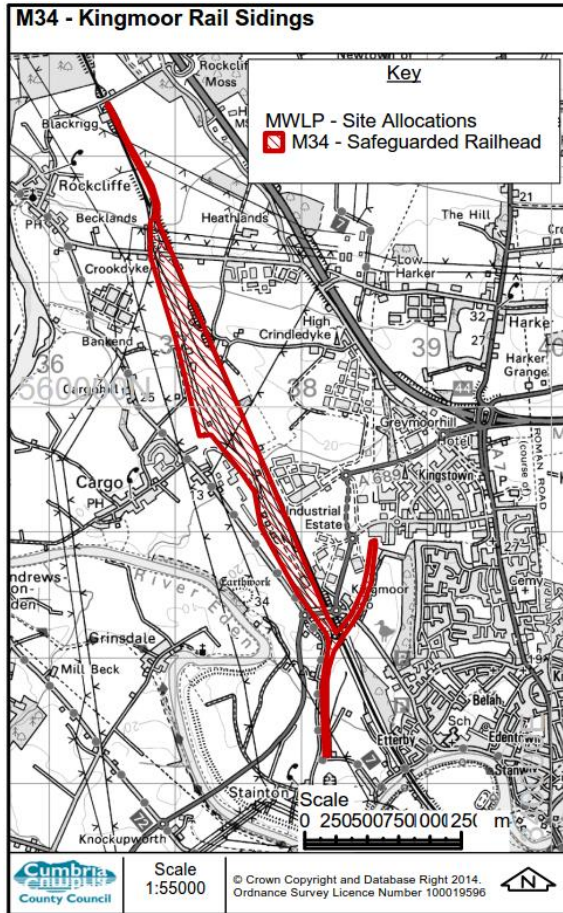
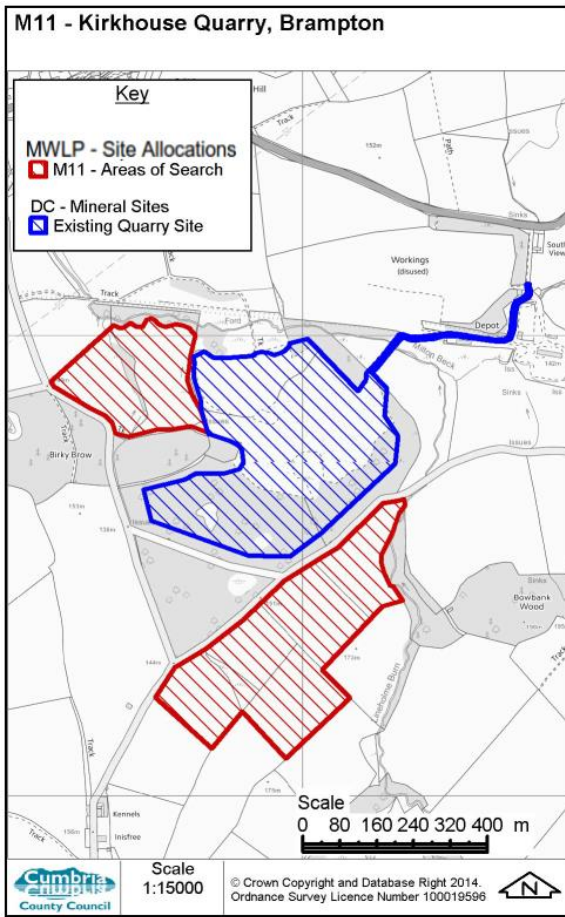
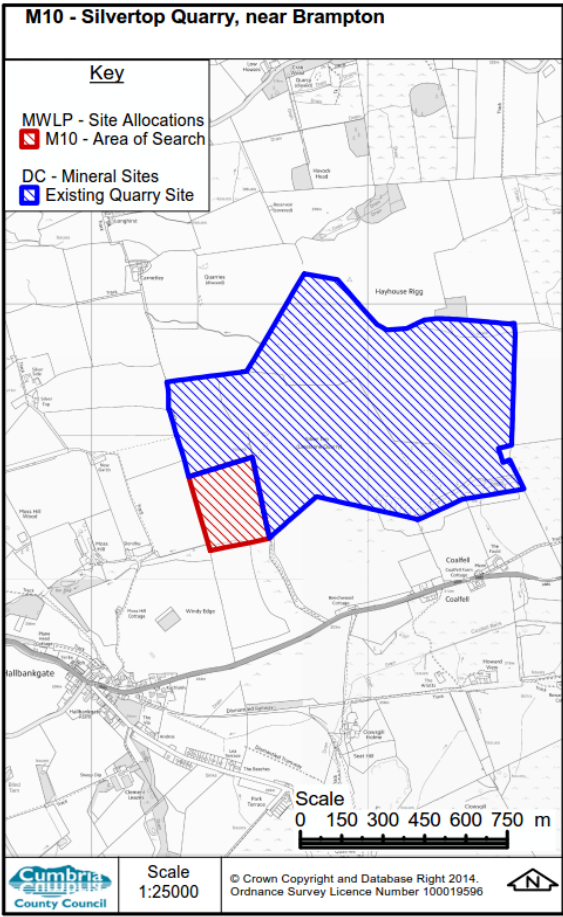


# Barrow

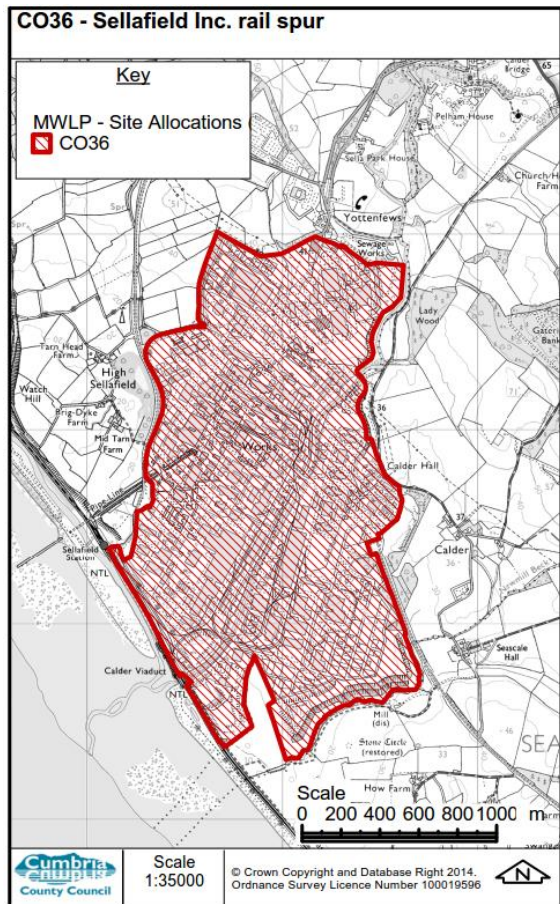
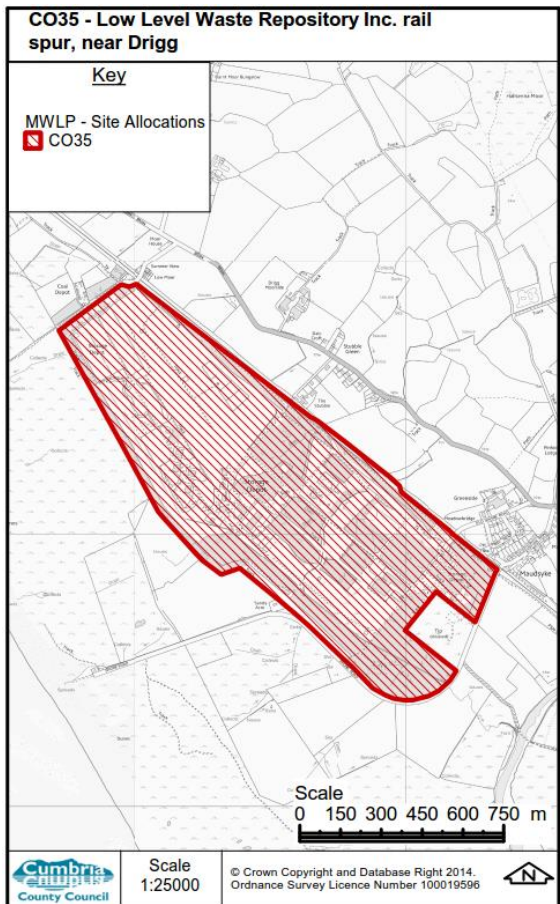
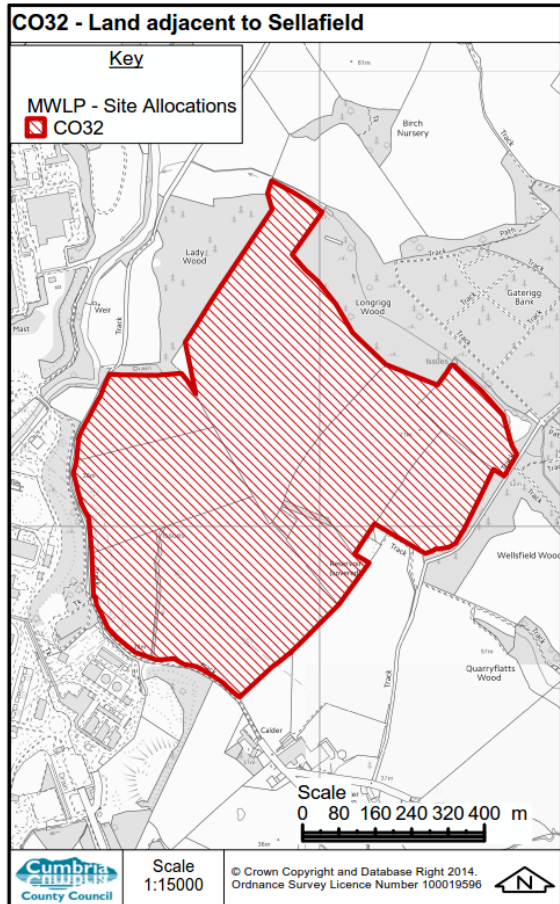
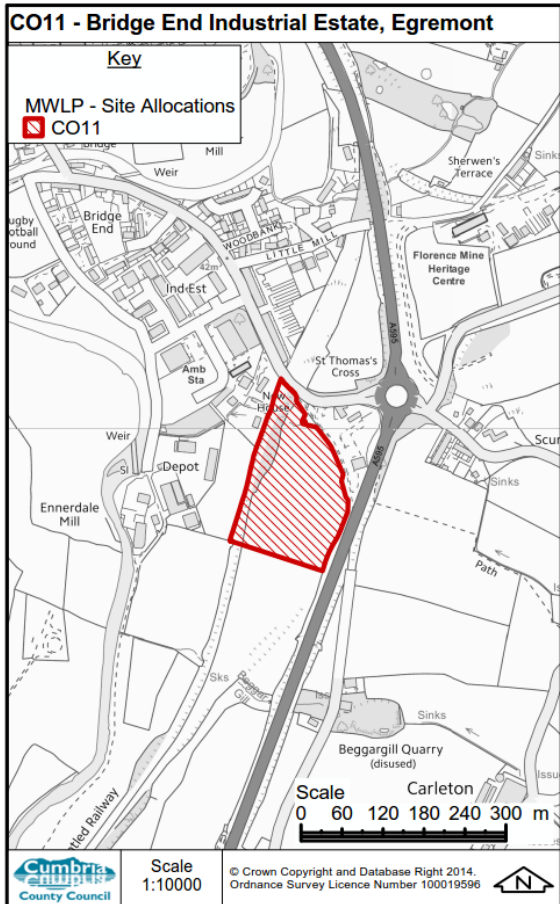


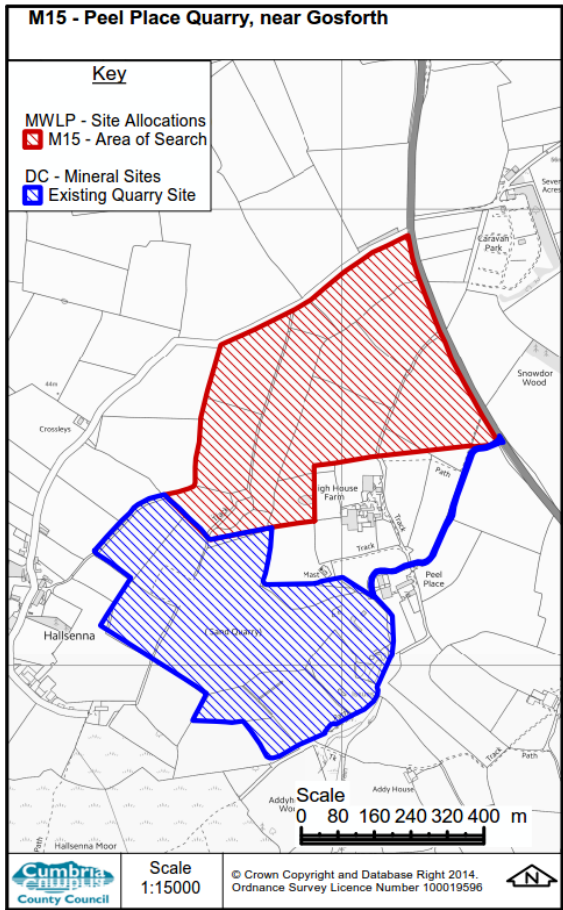
# Carlisle



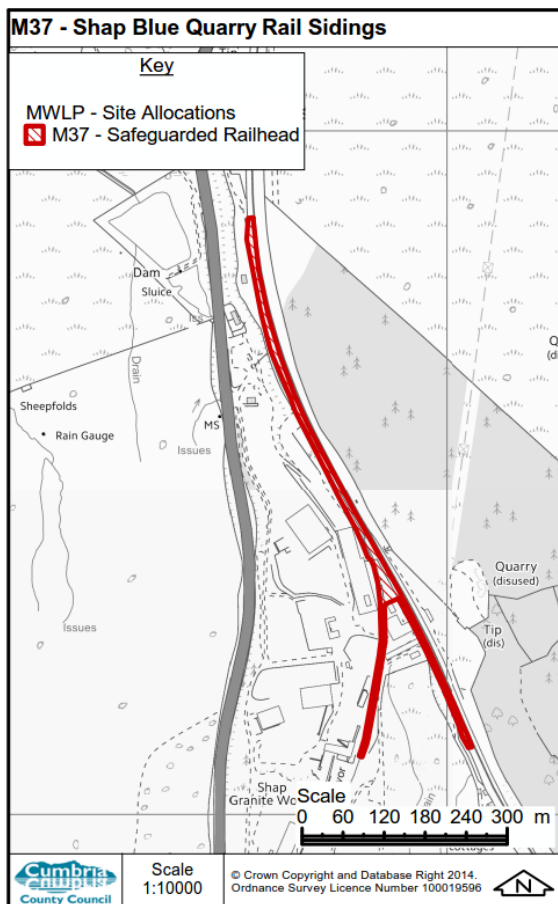
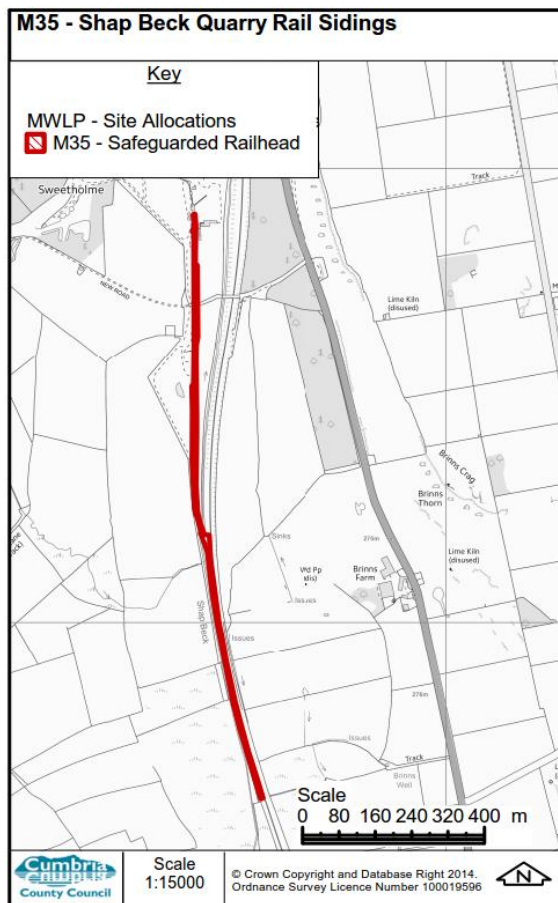
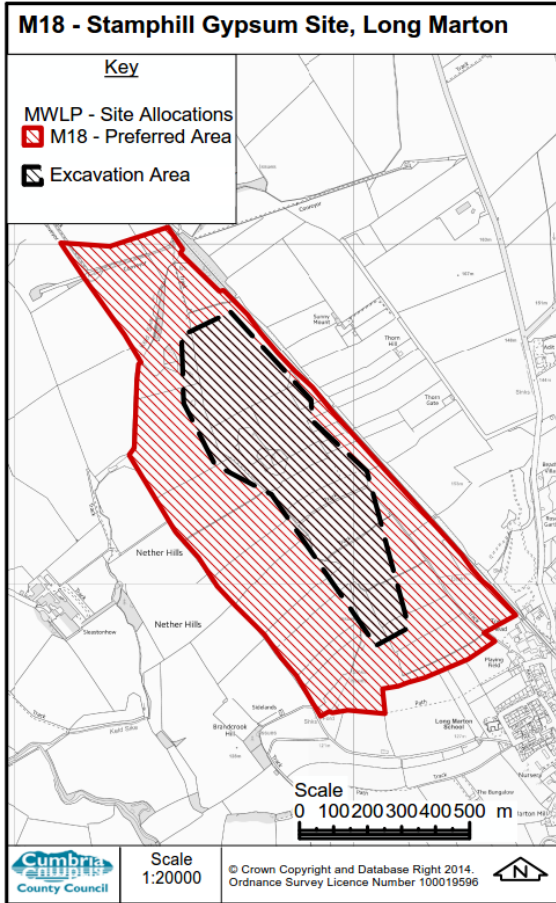


# Copeland





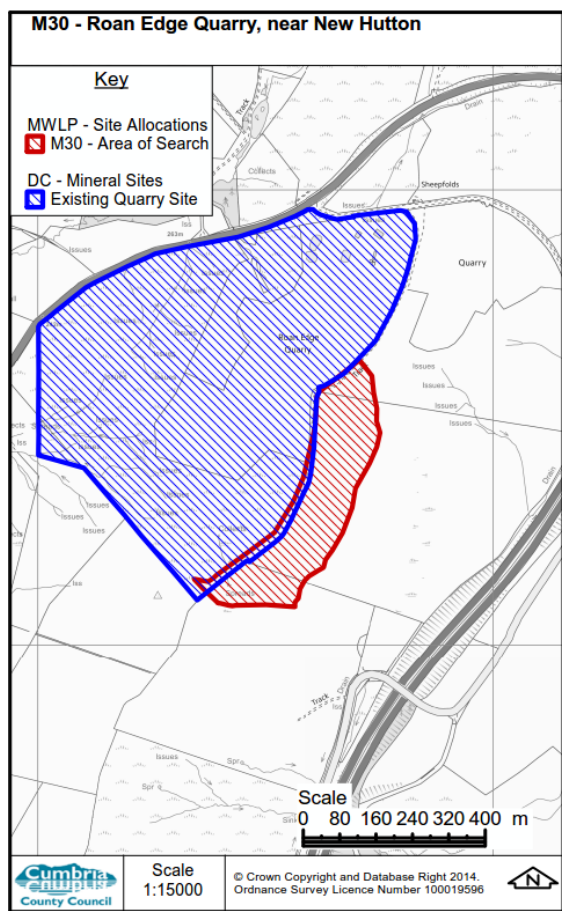
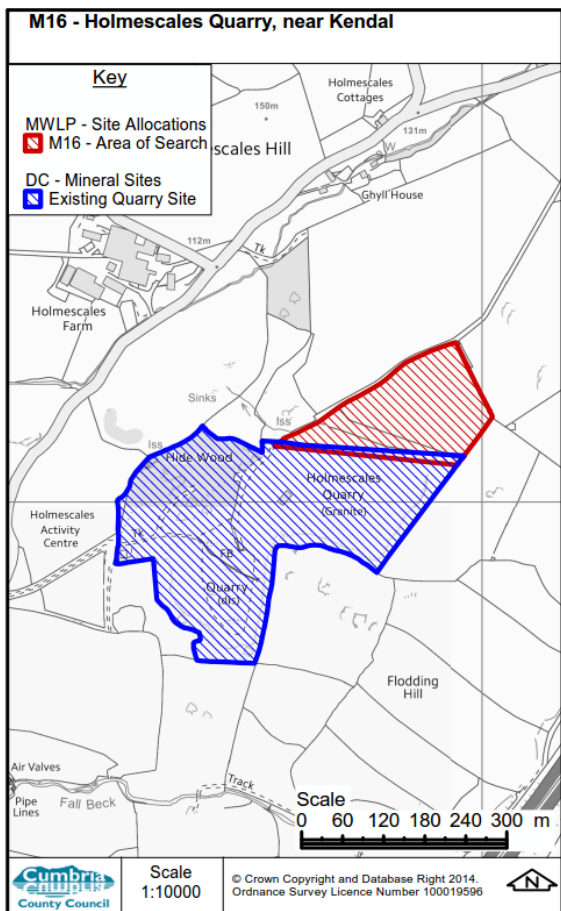
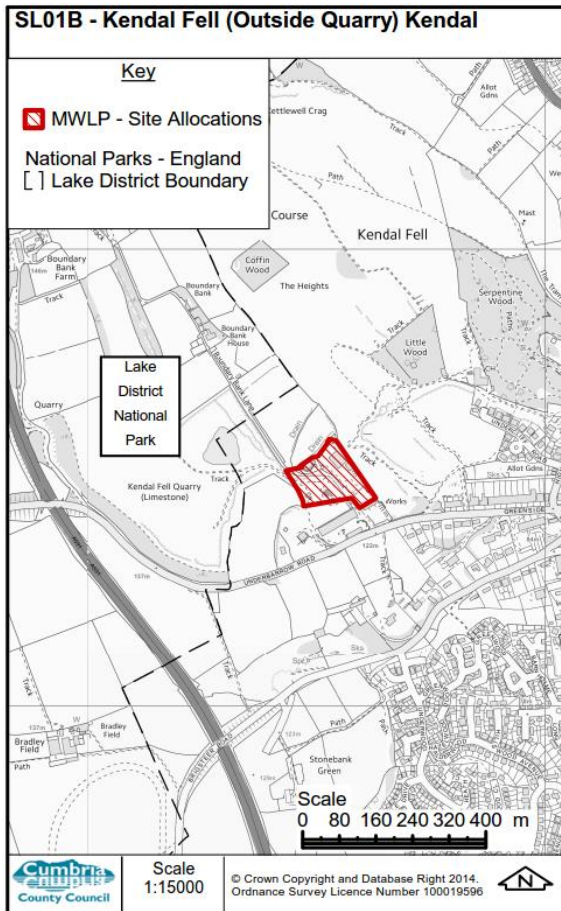
# Eden







# South Lakeland



## GLOSSARY

**Alpha activity (radioactivity)** This takes the form of particles (helium nuclei) ejected from a decaying atom. Alpha particles cause ionisations in biological tissue which may lead to damage; this is more significant if inhaled or swallowed. The particles have a very short range in air, typically about 5 cm.

**Aggregate minerals** Minerals that are used primarily to support the construction industry, including soft sand, sand and gravel, marine-dredged sand and crushed rock.

**Aggregate Working Party (AWP)** Aggregate working parties provide technical advice about the supply and demand for aggregates (including sand, gravel and crushed rock) to the Secretary of State for Communities and Local Government and to mineral planning authorities. The AWP's replaced the Regional Aggregate Working Parties.

**Agricultural Land Classification (ALC)** Land quality varies from place to place. The ALC provides a method for assessing the quality of farmland to enable informed choices to be made about its future use within the planning system. It helps underpin the principles of sustainable development.

**ALARA (As Low As Reasonably Achievable)** In relation to nuclear energy and licensed materials in the public interest, making every reasonable effort to maintain exposures to ionising radiation as far below the dose limits as practical. Operations must also be consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, benefits to public health and safety, and other societal and socio-economic considerations.

**ALARP (As Low As Reasonably Practicable)** This describes the level to which it is expected that workplace risks are controlled. Reasonably practicable involves weighing a risk against the effort, time and money needed to control that risk.

**Amenity** In practice, this is usually understood to mean the effect on visual and aural amenity in the immediate vicinity of a development. In assessing amenity, the local planning authority would always consider the local characteristics of the vicinity where the development is proposed does it have important scenic, historic, architectural or cultural features, and is development in scale and in keeping with these features.

**Anaerobic Digestion (AD)** A natural process in which micro-organisms break down organic matter, in the absence of oxygen, into biogas (a mixture of carbon dioxide (CO<sub>2</sub>) and methane) and digestate (a nitrogen-rich fertiliser). The biogas can be used directly in engines for Combined Heat and Power (CHP), burned to produce heat, or can be cleaned and used in the same way as natural gas or as a vehicle fuel. The digestate can be used as a renewable fertiliser or soil conditioner.

**Ancient woodland** An area that has been wooded continuously since at least 1600 AD.

**Authority Monitoring Report** Previously the Annual Monitoring Report, this document is part of the Local Plan, assessing the implementation of, and the extent to which, policies in the Plan are being successfully applied.

**Appropriate Assessment** Where likely significant effects on a European Wildlife Site are identified, it is necessary to consider whether those effects will adversely affect the integrity of the site in view of its Conservation Objectives. This is Stage 2 of a Habitats Regulations Assessment (HRA).

**Areas of coal working notified by the Coal Authority** These are the areas that have been notified to local planning authorities for the purposes of the Town and Country Planning (General Development Procedure) Order. The Coal Authority has provided Standing Advice about potential hazards for development proposals within these areas and wishes to be consulted about planning applications accompanied by Environmental Impact Assessment or for mineral working.

**Area of Outstanding Natural Beauty (AONB)** A landscape designation made, under the National Parks and Access to the Countryside Act 1949, to an area of countryside, the natural beauty of which it is desirable to conserve and enhance.

**Areas of Search** Areas, that are broader than Preferred Areas, where knowledge about mineral resources may be less certain, but within which planning permissions for particular sites could be granted to meet any shortfalls in supply, if suitable planning applications are made.

**Background radiation** Most background radiation comes from two sources, cosmic radiation and radioisotopes in the rocks and soil. The amounts vary with geology of the area (different rocks are made up of different elements) and elevation (less atmosphere at higher elevations to absorb cosmic radiation).

**BAT (Best Available Technique)** Simply, this means that an operator has to use the very best possible way to protect the environment, that can be economically justified, to undertake a task or process. 'Best' means most effective in achieving a high level of environmental protection; 'available' means the most technically advanced, but viable method, taking cost and benefits into consideration; 'technique' includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

**Becquerels (Bq)** This is the standard international unit of radioactivity equal to one radioactive transformation or decay per second. The multiples of becquerels that are commonly used to define radioactive waste activity are:

- kilobecquerels (kBq) equal to one thousand Bq
- megabecquerels (MBq) equal to one million Bq
- gigabecquerels (GBq) equal to one thousand million Bq

**Best and Most Versatile agricultural land** Land in grades 1, 2 and 3a of the Agricultural Land Classification.

**Best Practicable** A term that refers to the methods and techniques used in achieving the desired outcome, and includes the concept of practicality and, therefore, viability.

**Beta activity (radioactivity)** This takes the form of particles (electrons) emitted during radioactive decay from the nucleus of an atom. Beta particles cause ionisation in biological tissue which may lead to damage. Most beta particles can pass through the skin, but a few millimetres of light material such as aluminium, will generally shield against them.

**Blue spaces** There is a non-exhaustive list of blue spaces within green infrastructure: coastal areas, wetlands, estuaries, rivers, canals, ponds, open and running water. See also definition of 'green spaces'.

**Biodiversity** The range and diversity of life (including plants, animals and micro-organisms), ecosystems and ecological processes.

**BPEO (Best Practicable Environmental Option)** This procedure establishes, for a given set of objectives, the option that provides the most benefits, or the least damage to the environment as a whole, at acceptable cost in the long term as well as in the short term.

**BPM (Best Practicable Management)** The level of management and engineering control that minimises, as far as practicable, the release of radioactivity to the environment whilst taking account of a wider range of factors, including cost-effectiveness, technological status, operational safety, and social and environmental factors.

**Britain's Energy Coast** Established in 2009 with the mission of transforming West Cumbria into a diverse, resilient and low carbon economy. Originally Government-funded, they are now a public-private partnership that provides businesses with the support they need to capitalise on investment in the local nuclear industry and also to exploit opportunities in high-growth Clean Technologies such as solar, wind and biofuels.

**Brownfield land/sites** Previously developed land that can be redeveloped for other uses.

**Building stones** Minerals from which energy cannot be produced. Natural stone or rock is selected and finished (e.g. trimmed, cut, drilled, ground, polished) to specific sizes or shapes. They are chosen for their particular characteristics, such as colour, texture, pattern, durability or ease of working. In Cumbria, building stones are used for interior and exterior walling, paving, building, decoration and roofing, from a wide range of sources, including limestone, sandstone and slate.

**CAGR (Compound Annual Growth Rate)** A method to compare the historical year-on-year growth rates (for example, of waste) over several years, in order to show the constant growth rate over that period; this can then be used to forecast future growth rates.

**Carbon offsetting** A net reduction in carbon emissions resulting from a project undertaken to compensate for emissions elsewhere. One example of carbon offsetting is tree planting.

**Climate change** A change in the statistical properties of the climate system when considered over long periods of time, regardless of cause. The term is often used to

refer specifically to climate change caused by human activity, as opposed to changes in climate that may have resulted as part of Earth's natural processes. In this sense, the term *climate change* has become synonymous with global warming and everything else that increasing greenhouse gas levels will affect.

**Commercial and Industrial (C&I) waste** This is a diverse waste stream, generated from commercial and industrial operations, including, but not limited to processing and manufacturing industries, service sector, the trade and transport and distribution sectors, primary production and mining.

**Community Infrastructure Levy (CIL)** A levy allowing local authorities to raise funds from owners or developers of land undertaking new building projects in their area, in order to address the effects on associated infrastructure.

**Conservation Objectives** Referred to in the Conservation of Habitats and Species Regulations 2010 as amended ('the Habitats Regulations') and Article 6(3) of the European Habitats Directive, they provide a framework that should inform any Habitats Regulations Assessments (which may include an Appropriate Assessment) that a competent authority may be required to make under the legislation referred to above. In addition, they can be used to inform any measures necessary to conserve or restore a European Wildlife Site and/or to prevent the deterioration or significant disturbance of its qualifying features as required by the provisions of Articles 6(1) and 6(2) of the Habitats Directive respectively. Each Conservation Objective Citation gives a formal description of the reasons why the site has been designated.

**Construction and Demolition (C&D) waste** Arising from the construction, repair, maintenance and demolition of buildings and structures. It mostly includes brick, concrete, hardcore, subsoil and topsoil, but it can also include quantities of timber, metal and plastics. These wastes often arise with Excavation waste, in which case they are termed Construction, Demolition and Excavation (CD&E) wastes.

**Core Strategy** A Development Plan Document, which formerly set out the spatial vision and objectives for a specific period, with the strategic policies necessary to deliver that vision. This is now replaced by the Strategic Policies within the Local Plan.

**Development Plan** For the Plan area, this will comprise the Minerals and Waste Local Plan and the Local Plans for each district in Cumbria.

**Dormant mineral site** Defined under the Environment Act 1995 as a mineral site where no mineral development has taken place to any substantial extent in, on, or under the site at any time in the period 22 February 1982 to 6 June 1995. Dormant sites would need a Review of Old Minerals Permissions application (ROMP) to restart workings.

**Duty to Co-operate** A legal duty on local planning authorities and public bodies to engage constructively, actively and on an ongoing basis, to maximise the effectiveness of Local Plan preparation in the context of strategic cross boundary matters. It is not a duty to agree, but local planning authorities should make every effort to secure the necessary co-operation on such matters, before they submit their Local Plans for examination.

**Ecosystem Services** the benefits that people obtain from the ecosystem. These are grouped into four broad categories: *supporting*, such as nutrient cycles, soil formation and crop pollination, which make it possible for ecosystems to provide the other services; *provisioning*, such as the production of food, water, minerals, timber and energy; *regulating*, such as the control of climate and disease, waste decomposition and flood regulation; and *cultural*, such as spiritual, educational and recreational benefits.

**Energy from Waste (EfW)** The recovery of energy value from waste by burning the waste directly, or by burning a fuel produced from the waste.

**Energy minerals** Minerals, such as oil, gas and coal, which are used to produce energy.

**Environmental Impact Assessment (EIA)** A procedure to be followed for certain types of project to ensure that decisions are made in full knowledge of any likely significant effects on the environment.

**European Wildlife Site** Habitats and species or birds that are either threatened or valuable within the EU are designated as Special Areas of Conservation (SAC) and Special Protection Areas (SPA). These sites make up a network of sites across Europe called Natura 2000, protected under the EU Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora).

**Evidence Base** The Evidence Base is a collective term for the documents, studies, reports and community feedback used to support the Local Plan.

**Excavation Waste** Solid waste resulting from or produced by the excavation or digging out of building foundations, bridge footings, pipes or other man-made structures.

**Flood risk** As defined in Planning Practice Guidance, this is “a combination of the probability and the potential consequences of flooding from all sources – including from rivers and the sea, directly from rainfall on the ground surface and rising groundwater, overwhelmed sewers and drainage systems, and from reservoirs, canals and lakes and other artificial sources”.

**Flood Zone** Flood zones refer to the probability of flooding (ignoring the presence of defences):

- Flood Zone 1 = low probability
- Flood Zone 2 = medium probability
- Flood Zone 3a = high probability
- Flood Zone 3b = within functional flood plain.

**Front loading** Engaging/consulting with the community at the start of the Plan preparation process.

**Gamma activity (radioactivity)** An electromagnetic radiation similar in some respects to visible light, but with higher energy. Gamma rays cause ionisation in biological tissue which may lead to damage. These rays are very penetrating and are attenuated only by shields of dense metal or concrete, perhaps some metres

thick. Their emission during radioactive decay is usually accompanied by beta or alpha activity.

**Gasification** Thermal treatment that involves heating waste in the presence of oxygen to recover energy in the form of gas.

**Geodiversity** The range of rocks, minerals, fossils, soils and landforms.

**Geographic Information System (GIS)** A computer system for capturing, storing, checking and displaying data related to positions on the earth's surface. GIS can show many layers, containing different datasets, on one map. This enables people to more easily see, analyse and understand patterns and relationships.

**Green infrastructure** A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.

**Green spaces** There is a long, non-exhaustive list of green spaces within green infrastructure: urban parks, Country and Regional Parks, formal gardens, informal recreation spaces, housing green spaces, domestic gardens, village greens, urban commons, green roofs, woodland and scrub, grassland (e.g. downland and meadow), heath and moor, wetlands, wastelands and disturbed ground, bare rock habitats (e.g. cliffs and quarries), river and canal banks, road and rail corridors, cycling routes, pedestrian paths, rights of way, allotments, community gardens, city farms, cemeteries and churchyards. See also definition of 'blue spaces'.

**Greenfield land/sites** Land or sites which have not previously been developed or which were developed but have been restored and/or now blended back into the landscape.

**Greenhouse Gas (GHG) emissions** Greenhouse gases 'trap' energy radiated by the Earth within the atmosphere. They include carbon dioxide, methane, nitrous oxide and fluorinated gases. Carbon dioxide is the main greenhouse gas in the UK.

**GVA** Gross Value Added, i.e. the difference between salary costs and actual profits, per person.

**Habitats Regulations Assessment (HRA)** HRA is a step-by-step process that helps determine likely significant effect and (where appropriate) assess adverse impacts on the integrity of a European Wildlife site, examines alternative solutions and provides justification for "imperative reasons of overriding public interest" (IROPI). European guidance divides HRA into a four stage process.

**Hazardous waste** Waste that is reactive, toxic, corrosive or otherwise dangerous to living things and/or the environment.

**Heritage asset** The term is wide-ranging and encompasses World Heritage Sites, Registered Historic Battlefields, Registered Parks and Gardens of Historic Interest, scheduled monuments, grade I and II\* listed buildings and protected wreck sites.



**Heritage Coast** A landscape designation for undeveloped coastline that is managed to conserve its natural beauty and, where appropriate, to improve accessibility for visitors.

**High Level radioactive Waste (HLW)** Radioactive waste that is so active that it is self-heating and requires cooling.

**Historic environment** All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, as well as landscaped and planted or managed flora.

**Historic Environment Record (HER)** Information services that provide access to comprehensive and dynamic resources relating to the historic environment of a defined geographic area for public benefit and use.

**Historic Landscape Character (HLC)** Project funded by the former English Heritage (now Historic England), to map the elements of the historic landscape onto a series of interactive GIS-based maps that characterise the distinctive, historic dimension of today's environment. It is a useful tool when undertaking environmental assessment at the strategic level to inform minerals planning policies, for example, or to assess the county-wide allocation of development land.

**Household Waste Recycling Centre (HWRC)** Civic amenity sites which may be used by local residents (usually free of charge) and businesses (usually charged). The sites provide facilities for collection of all household and garden waste other than anything which may be considered as hazardous and requiring special treatment.

**Industrial minerals** Minerals that are necessary to support industrial and manufacturing processes and other non-aggregate uses, some of which are minerals of recognised national importance; these include - brickclay (especially Etruria Marl and fireclay), silica sand (including high grade silica sands), industrial grade limestone, cement raw materials, gypsum, peat, salt, fluorspar, tungsten, kaolin, ball clay and potash.

**Infrastructure** Basic services necessary for development to take place; for example, roads, electricity, sewerage, water, education and health facilities.

**Intermediate Level Waste (ILW)** Waste that is sufficiently radioactive to require shielding during its handling and transportation.

**Ionisation** This process occurs when radiation (alpha, beta and gamma activity) interacts with matter, which can cause atoms and molecules to become unstable. Ionisation from radiation is the first stage in possible change or damage within biological tissue.

**Imperative Reasons of Overriding Public Interest (IROPI)** During the Habitats Regulations Assessment process, if it can be demonstrated that there are no alternative solutions to the proposal, that would have a lesser effect or avoid an adverse effect on the integrity of the site(s), the project may still be carried out if the competent authority is satisfied that it is for imperative reasons of overriding public interest. In cases where there are priority natural habitats or species adversely

affected by the development, the IROPI justification must relate to human health, public safety or beneficial consequences of primary importance to the environment.

**Landbanks** Landbanks of aggregate mineral reserves are principally a monitoring tool to provide a mineral planning authority with early warning of possible disruption to the provision of an adequate and steady supply of land-won aggregates in their area. Separate landbanks are required for crushed rock (10 years) and sand and gravel (7 years) because they partly serve different markets and have different site infrastructure requirements.

**Landfill/landraise** This is the disposal of waste into or onto the land. Landfill sites are constructed and operated to strict technical standards, in order to reduce adverse environmental impacts. Most types of waste may be disposed of via landfill; however, the EU Landfill Directive 1999/31/EC1 requires that landfill sites must be classified as hazardous, non-hazardous or inert. Reducing the amount of waste to landfill is encouraged by the Landfill Directive, to recover value from waste and develop more sustainable waste management.

**Landfill Directive** This was adopted by the European Community in 1999. It sets tough operational and technical requirements for disposal of waste by landfill, with the aim of reducing the negative effects of landfilling.

**Life cycle analysis (of greenhouse gas emissions)** An approach to measuring the impact on climate change across the supply chain for a product, including those from fossil fuel burnt in extraction, processing, transport and disposal.

**Low carbon energy supplies** These use technology that can help reduce carbon emissions. They can include combined heat and power (CHP) plants and the use of heat that would otherwise be wasted. They are usually referred to in conjunction with renewable energy supplies.

**Local Aggregates Assessment (LAA)** An LAA is an annual assessment of the demand for and supply of aggregates in a mineral planning authority's area.

**Local Development Document** A collective term given to the Development Plan Documents and Supplementary Planning Documents.

**Local Development Framework (LDF)** The name for the portfolio of Local Development Documents. These consisted of Development Plan Documents, Supplementary Planning Documents, a Statement of Community Involvement, the Local Development Scheme and Annual Monitoring Reports, produced by the Local Planning Authority. The Minerals and Waste Development Framework was an LDF dealing only with minerals and waste issues. The frameworks have now been replaced by Local Plans.

**Local Development Scheme (LDS)** This sets out the programme and timetable for the preparation and production of Local Development Documents.

**Local Enterprise Partnership (LEP)** Organisations that replaced the Regional Development Agencies (RDAs). They are voluntary partnerships between local authorities and businesses, created by the former Department for Business,

Innovation and Skills, and will aim to play a key part in promoting local economic development.

**Local Nature Partnership (LNP)** The Government's ambition for LNPs is that they will help their local area to manage the natural environment as a system and to embed its value in local decisions for the benefit of nature, people and the economy. To do this effectively, they will need to be self-sustaining strategic partnerships of a broad range of local organisations, businesses and people, with the credibility to work with and influence other local strategic decision makers.

**Local Plan** These Plans, produced by the Local Planning Authority, have now replaced the Local Development Frameworks.

**Local Planning Authority (LPA)** The public authority whose duty it is to carry out specific planning functions for a particular area. All references to local planning authority apply to the District Council, County Council and National Park Authority, to the extent appropriate to their responsibilities.

**Low Activity Low Level Waste (LA-LLW)** As a general rule, these are radioactive wastes with activity levels between 4 and 200 becquerels/gram (Bq/g), which do not need the highly engineered containment systems that are provided at the Low Level Waste Repository near Drigg. They can be sent to suitably permitted conventional non-inert landfills.

**Low Level radioactive Waste (LLW)** Radioactive waste that has activity levels not exceeding 4 gigabecquerels/tonne (GBq/te) of alpha or 12 GBq/te of beta gamma activity. One becquerel is equal to the disintegration of one radionuclide per second. A GBq is 1000,000,000 becquerels.

**Low Level Waste Repository (LLWR)** The LLW Repository Ltd is a waste management company that works on behalf of the Nuclear Decommissioning Authority, to provide services to customers to treat and dispose of low level radioactive waste at the national Low Level Waste Repository in West Cumbria. They oversee a national Low Level Waste programme to ensure that lower activity waste is managed effectively.

**Major hazards** Major hazard installations and pipelines, licensed explosive sites and nuclear installations, around which Health and Safety Executive (and Office for Nuclear Regulation) consultation distances, to mitigate the consequences to public safety of major accidents, may apply.

**Managed Aggregates Supply System (MASS)** The underpinning concept behind this system, is that Mineral Planning Authorities who have adequate resources of aggregates make an appropriate contribution to national as well as local supply, while making due allowance for the need to reduce environmental damage to an acceptable level.

**Materials Recovery Facility (MRF)** These are specialised facilities that receive recyclable materials, from household kerbside collection, from 'bring sites' or from HWRC's. The recyclables are sorted and sent onwards for reprocessing and recycling. Material is normally delivered dry to the MRF. Dry recyclables include:

plastic; glass; metal; textiles; and paper-based products. They exclude organic material (food, garden and wet waste).

**Mechanical and Biological Treatment (MBT) plant** A type of waste processing facility that combines a sorting facility with a form of biological treatment, such as composting or anaerobic digestion. MBT plants are designed to process mixed household waste as well as commercial and industrial wastes.

**Mineral Safeguarding Areas (MSA)** Areas intended to safeguard proven deposits of minerals which are, or may become, of economic importance within the foreseeable future, from unnecessary sterilisation by surface development.

**Mineral Consultation Areas (MCA)** Land with potential for mineral extraction, where county and district councils in two-tier planning areas need to co-operate in the exercise of their planning powers. They are a mechanism for consultation between the county and district councils, about development which would be likely to affect the winning and working of minerals, and also about how mineral working could affect other existing or proposed land uses. They equate to all the Minerals Safeguarding Areas in the county put together.

**Minerals Planning Authority (MPA)** The public authority whose duty it is to carry out minerals planning functions for a particular area.

**Minerals and Waste Local Development Framework (MWDF)** See Local Development Framework (LDF) above.

**Minerals and Waste Local Plan (MWLP)** The Minerals and Waste Local Plan deals only with minerals and waste issues. It has replaced the Minerals and Waste Development Framework.

**Municipal waste** Municipal solid waste (MSW) is a waste type consisting of everyday items that are discarded by the public. The waste is from domestic properties, including caravans, residential homes and premises forming part of an educational establishment, a hospital or a nursing home.

**National Park** An area designated under the National Parks and Access to the Countryside Act 1949 (as amended). The Cumbria Minerals and Waste Local Plan does not cover land within the county of Cumbria that is within either the Lake District National Park or the Yorkshire Dales National Park.

**National Planning Policy Framework (NPPF)** The Framework sets out the Government's planning policies for England and how these are expected to be applied. It provides a framework within which local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.

**National Waste Management Plan (NWMP)** This is the national waste plan for England. The NWMP is required by the European Waste Framework Directive and replaces the 2007 Waste Strategy.

**Naturally Occurring Radioactive Materials (NORM)** These can be found in many geological formations and may be brought to the surface during oil/gas drilling and

abstraction. They are natural radioactive elements that are present in very low concentrations in the earth's crust, which are often brought to the surface through these activities.

**Nature Improvement Areas** These are the Ecological Restoration Zones proposed by the Government's "Making Space for Nature" review. They are areas where opportunities to deliver ecological networks, both in terms of large area scale and valuable benefits accruing to wildlife and people, are particularly high.

**Net self-sufficiency** The objective of attaining net self-sufficiency in a Waste Planning Authority (WPA) area, relates to the provision of adequate waste management capacity to meet the arisings of waste from within the WPA. However, net self-sufficiency allows for continued import and export of waste by proposing to manage the equivalent of 100% of waste arisings within the WPA, allowing for any imports of waste to match exports. Self-sufficiency in waste management at a national level is an aim deriving from Article 16 of the Waste Framework Directive.

**Non-energy minerals** Minerals that do not have the capability of producing energy, which include aggregates, industrial minerals and building stones.

**North West Waste Network (NWWN)** The North West Waste Network was formed following the cessation of the North West Regional Technical Advisory Board (RTAB) in 2012. The NWWN is a voluntary group of representative waste planning authority officers from across North West England.

**Planning condition** A condition imposed on the grant of planning permission (in accordance with the Town and Country Planning Act 1990), which can enhance the quality of development and enable development proposals to proceed where it would otherwise have been necessary to refuse planning permission, by mitigating the adverse effects of the development.

**Planning obligation** A legally enforceable obligation, entered into under section 106 of the Town and Country Planning Act 1990, to mitigate the impacts of a development proposal.

**Planning Practice Guidance (PPG)** This is an easily accessible online resource of important information for any user of the planning system; previously, this information was only published in separate documents. There are online links between the National Planning Policy Framework and relevant planning practice guidance, as well as between different categories of guidance.

**Pollution** Anything that affects the quality of land, air, water or soils, which might lead to an adverse impact on human health, the natural environment or general amenity. Pollution can arise from a range of emissions, including smoke, fumes, gases, dust, steam, odour, noise and light.

**Precautionary principle** This is an environmental management 'rule' that states if a threat of serious or irreversible damage to the environment or human health exists, a lack of full scientific knowledge about the situation should not be allowed to delay containment, or remedial steps, if the balance of potential costs and benefits justifies enacting them. In other words, "prevention is better than cure."

**Preferred Areas** Areas of known mineral resources where planning permission for minerals extraction might reasonably be anticipated, subject to tests of environmental acceptability.

**Priority habitats and species** Species and Habitats of Principal Importance included in the England Biodiversity List published by the Secretary of State under section 41 of the Natural Environment and Rural Communities Act 2006.

**Pyrolysis** Chemical decomposition of a substance by heat in the absence of oxygen, resulting in various hydrocarbon gases and carbon-like residue.

#### **Radioactive wastes**

1. **Pre-treatment** The aim is to segregate the waste into streams that will be managed in the same or similar ways.
2. **Treatment** Involves changing the characteristics of the waste by volume reduction, radionuclide removal or change of composition.
3. **Conditioning** Involves transforming wastes into a form suitable for handling, transport, storage or disposal, usually by immobilisation and packaging.
4. **Storage** Involves emplacement of waste into a facility with the intention of retrieving it at a later date, for another step in the management process.
5. **Retrieval** Involves removing wastes from storage for inspection, further storage elsewhere, treatment (especially if technology has progressed and a more suitable storage or disposal solution becomes available) or disposal.
6. **Disposal** Occurs when packages of radioactive waste are emplaced in a facility with no intention of retrieval. Disposal can also include discharging liquid and gaseous effluent into the environment (under regulation).
7. **Management** The onward consignment of waste, in order for it to undergo any one of options 1 to 6 above, rather than performing one of those options.

**Ramsar sites** Wetlands of international importance, designated under the 1971 Ramsar Convention, which was held in the city of Ramsar in Iran.

**Regional Aggregates Working Party (RAWP)** These former Regional Planning Body Assembly organisations included representatives of central and local government and the minerals industry, considering the production and need for aggregates in the region. They produced annual reports and a more comprehensive survey was conducted and reported every 4 years. The NPPF still requires Aggregate Working Parties.

**Regional Spatial Strategy (RSS)** This set out the region's strategic policies, in relation to the development and use of land and formed part of the development plan for each local planning authority area. Government began the process of revoking all RSS's in 2010; the NW RSS was revoked in May 2013.

**Regional Technical Advisory Body (RTAB)** These former Regional Planning Body Assembly organisations, included representatives of central and local government and industry. They considered waste management in the region, producing a comprehensive report each year to inform planning authorities at all levels.

**Renewable energy/resources** Energy forms/resources that occur naturally and repeatedly in the environment, such as water, wind, waves and solar power and also

bio-mass. Combustible or digestible waste materials are also regarded as renewable sources of energy.

**Site of Special Scientific Interest (SSSI)** SSSIs conserve and protect the best of our wildlife, geological and physiographical heritage for the benefit of present and future generations. There are over 4,000 SSSIs in England, covering around 8% of the country. These sites are designated by Natural England and give legal protection to the best sites for wildlife and geology under the Wildlife and Countryside Act 1981 (as amended).

**Spatial planning** This moves the focus from a traditional land-use planning approach based on the regulation and control of land to a more inclusive approach which aims to ensure the best use of land by assessing competing demands. To carry this forward social, economic and environmental factors are taken into account in producing policies or decisions which promote sustainable development and influence the nature of places and how they function.

**Special Area of Conservation (SAC)** Areas given special protection under the European Union's Habitats Directive, which is transposed into UK law by the Habitats and Conservation of Species Regulations 2010.

**Special Protection Area (SPA)** Areas which have been identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds found within European Union countries. They are European designated sites, classified under the Birds Directive.

**Statement of Community Involvement (SCI)** Sets out the standards that local authorities will achieve with regard to involving individuals, communities and other stakeholders in the preparation of Local Plans and in development control decisions. Cumbria County Council's Statement of Community Involvement was adopted in January 2006 and has been reviewed for consultation and re-issue in 2017.

**Stepping stones** Pockets of habitat that, while not necessarily connected, facilitate the movement of species across otherwise inhospitable landscapes.

**Strategic Environmental Appraisal (SEA)** A generic term used to describe environmental assessment, as applied to plans, policies and programmes. The European 'SEA Directive' (2001/42/EC) requires a formal 'environmental assessment of certain plans and programmes, including those in the field of planning and land use'.

**Strategic Flood Risk Assessment (SFRA)** Highlights the potential level of risk of flooding on land throughout the area.

**Supplementary Planning Document (SPD)** Documents that add further detail to the policies in the Local Plan. They can be used to provide further guidance for development on specific sites, or on particular issues, such as design. SPD's are capable of being a material consideration in planning decisions, but are not part of the development plan.

**Sustainability Appraisal (SA)** A tool for appraising policies and proposals, to ensure that they reflect sustainable development objectives based on a range of

social, economic and environmental factors. This is required for all Local Development Documents.

**Sustainable Community Strategy** The high level visioning document for an area, dealing with wide social, economic and environmental issues that affect the County or District. In Cumbria the Cumbria Strategic Partnership produced the Cumbria Sustainable Community Strategy, which guides the direction of the Minerals & Waste Local Plan.

**Sustainable development** There are numerous definitions of sustainable development. The most widely agreed definition comes from the 1987 Brundtland report, namely: “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

**Sustainable transport mode** Any efficient, safe and accessible means of transport, with overall low impact on the environment, including walking and cycling, low and ultra low emission vehicles, car sharing and public transport.

**Very Low Level Waste (VLLW)** Radioactive waste at the lower end of the LLW scale, that is contaminated with a very small amount of activity (0.4 to 4Bq/g)

**Waste Management Plan for England (WMPE)** The Waste Management Plan for England is a high level document that is non–site specific. It provides an analysis of the current waste management situation in England, and evaluates how it will support implementation of the objectives and provisions of the revised European Union’s Waste Framework Directive.

**Waste Planning Authority (WPA)** The public authority whose duty it is to carry out waste planning functions for a particular area.

**West Cumbria Spatial Masterplan** In 2008, the West Cumbria Strategic Forum initiated the masterplan, which set out the strategies that the West Cumbrian partners identified as being important for the regeneration of the area. The plan’s vision was set out in terms of economic growth, environmental sustainability and management, and in meeting the UK’s long-term energy needs.

**West Cumbria Strategic Forum** In 2004, Government signed a Memorandum of agreement with West Cumbria Partners, including the Nuclear Decommissioning Authority and West Cumbria local authorities, to safeguard West Cumbria’s economic prosperity. The agreement was signed at the first meeting of the West Cumbria Strategic Forum, which existed to facilitate co-operation between all the bodies involved with regeneration in West Cumbria. The Forum’s primary aim was to help create a sustainable economy, taking into account the threats and opportunities that nuclear decommissioning brings to an area so heavily dependent on the nuclear industry.

**Wildlife corridor** Linear area of habitat connecting wildlife populations.

**Windfall sites** Sites that have not been specifically identified as available in the Local Plan process. They normally comprise previously developed sites that have unexpectedly become available.



**Zero waste commitment** The Coalition Agreement committed the Government to work towards a zero waste economy in which material resources are re-used, recycled or recovered wherever possible, and only disposed of as the option of very last resort. Defra's Structural Reform Plan sets out an action to "set the path towards a 'zero waste' economy through review of waste policies".



## APPENDICES



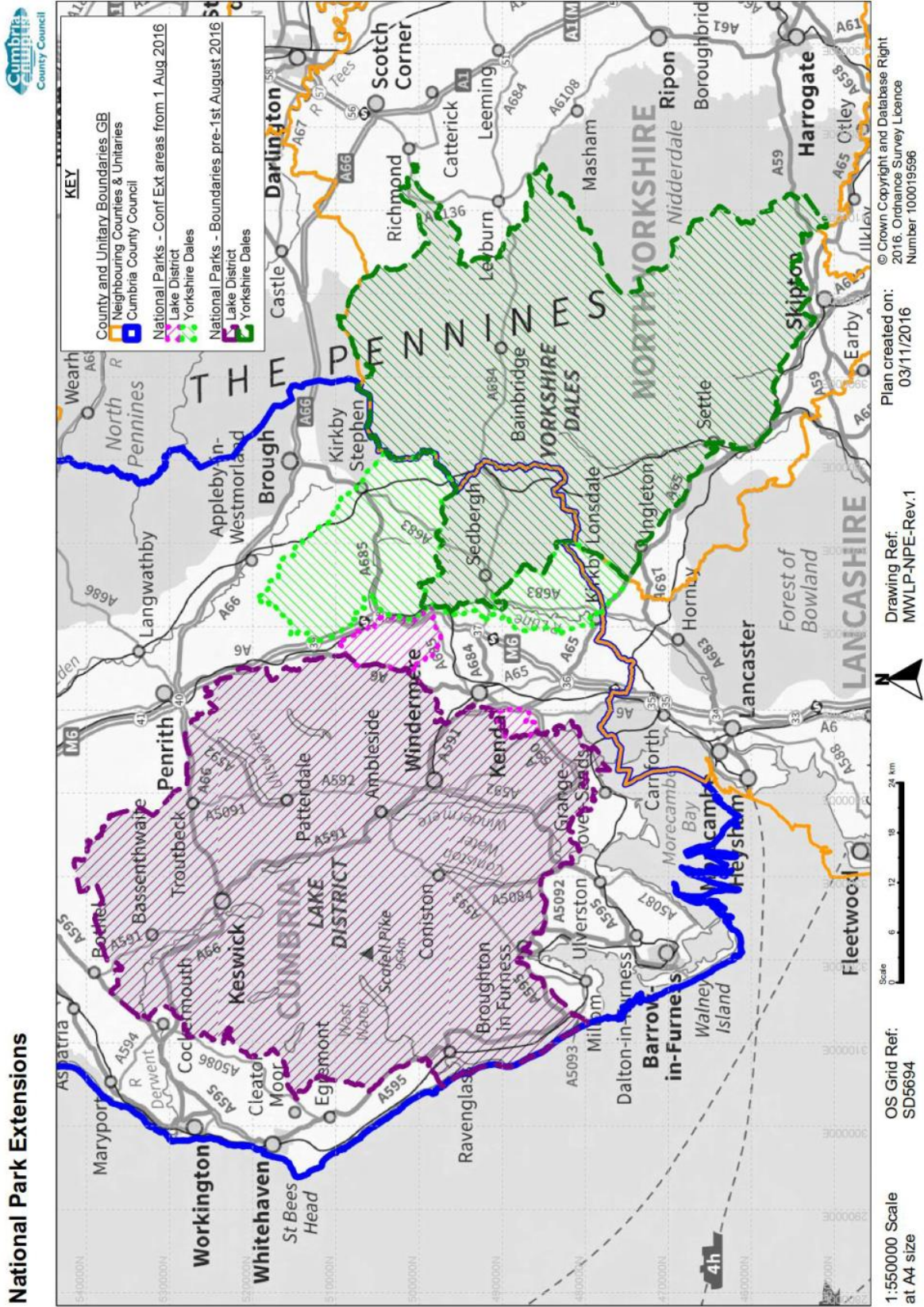
## APPENDIX 1

### LIST OF SUPERSEDED MWDF POLICIES AND REPLACEMENT MWLP POLICIES

CS = Core Strategy policy    DC = Development Control policy    SP = Strategic Policy

MWDF 2009	Title	MWLP 2017 replacement
CS1	Sustainable Location and Design	SP13 Climate change mitigation and adaptation
CS2	Economic Benefit	SP14 Economic benefit
CS3	Community Benefits	deleted
CS4	Environmental Assets	SP15 Environmental assets
CS5	Afteruse and Restoration	SP16 Restoration and aftercare
CS6	Planning Obligations	SP17 Section 106 planning obligations
CS7	Strategic Areas for New Developments	SP9 Strategic areas for new mineral developments
CS8	Provision for Waste	SP2 Provision for waste
CS9	Waste Capacity	SP3 Waste capacity
CS10	High and Intermediate Level Radioactive Wastes Storage	SP6 Higher activity radioactive wastes treatment, management and storage
CS11	High and Intermediate Level Radioactive Waste Geological Disposal	deleted
CS12	Low Level Radioactive Waste	SP5 Development criteria for low level radioactive waste sites
CS13	Supply of Minerals	SP7 Minerals provision
CS14	Minerals Safeguarding	SP8 Minerals safeguarding
CS15	Marine Dredged Aggregates	SP10 Marine dredged aggregates
CS16	Industrial Limestones	SP11 Industrial limestones
CS17	Building Stones	DC12 Criteria for non-energy minerals development
CS18	Oil and Gas and Coal Bed Methane	DC13 Criteria for energy minerals
DC1	Traffic and Transport	DC1 Traffic and transport
DC2	General Criteria	DC2 General criteria
DC3	Cumulative Environmental Impacts	DC6 Cumulative environmental impacts
DC4	Criteria for Waste Management Facilities	DC9 Criteria for waste management facilities
DC5	Criteria for Landfill	DC10 Criteria for landfill and landraise
DC6	Criteria for Non-Energy Minerals Development	DC12 Criteria for non-energy minerals development
DC7	Criteria for Energy Minerals	DC13 Criteria for energy minerals
DC8	Applications for New Conditions	DC14 Review of Mineral Permissions
DC9	Minerals Safeguarding	DC15 Minerals safeguarding
DC10	Biodiversity and Geodiversity	DC16 Biodiversity and geodiversity
DC11	Historic Environment	DC17 Historic environment
DC12	Landscape	DC18 Landscape and visual impact
DC13	Flood Risk	DC19 Flood risk
DC14	The Water Environment	DC20 The water environment
DC15	Protection of Soil Resources	DC21 Protection of soil resources
DC16	Afteruse and Restoration	DC22 Restoration and aftercare
DC17	Planning Obligations	SP17 Section 106 planning obligations

Map showing the new areas designated as National Park



## APPENDIX 3 DETAILS OF CUMBRIA QUARRIES

from: Cumbria and the Lake District National Park Joint  
Local Aggregates Assessment - supporting information, October 2015

**Table 9 – CRUSHED ROCK QUARRIES**  
(see Map 2)

Location	Expiry date*	Notes
Eskett and Rowrah	2034 30 September	two parts of quarry now combined into one planning permission; options for working 'hard to access' reserves being considered
Flusco	2032 31 December	also construction waste recycling to 31 Dec 2031
Goldmire	2042 21 February	also construction waste recycling to 2041
Hartley	2042 21 February	- ROMP conditions agreed in December 2013 - limited operations at site
Helbeck	2042 21 February	scoping opinion on ROMP and lateral extension submitted in 2015
Holme Park	2023 31 December	scoping report on time extension issued by Cumbria County Council in 2015
Kendal Fell	2042 21 February	status under consideration – ROMP deadline passed without submission of application
Moota	2024 31 December	time and physical extension approved May 2015
Sandside	2020 30 June	potential for submission of time extension
Shap Beck #	2042 21 February	
Shap Blue #	2042 21 February	also deposit of mining waste on land east of the A6 to 31 December 2034
Shap Pink	2042 21 February	- wholly within the Lake District National Park - bought late 2014, new operators consider significant reserves suitable for aggregates
Shap Fell (aka Hardendale)	2018 31 December	application for time extension and to deepen quarry submitted
Silvertop	2042 21 February	also construction waste recycling to 16 Dec 2018
Stainton	2042 21 February	planning permission for deepening of part of the quarry (for industrial limestones) granted time extension to 31 March 2025
Tendley	2029 31 December	

\* expiry dates as at October 2015

# the extraction areas for these two quarries are within the Lake District National Park

**Map 2 - Crushed rock quarries**



1:550000 at A4 size      OS Grid Ref: NY3826      Scale 0 4 8 12 km      Drawing Ref:      Plan Created on:      © Crown Copyright and Database Right. September 2014. Ordnance Survey Licence Number 100019596.



**Table 10 – SAND AND GRAVEL QUARRIES**

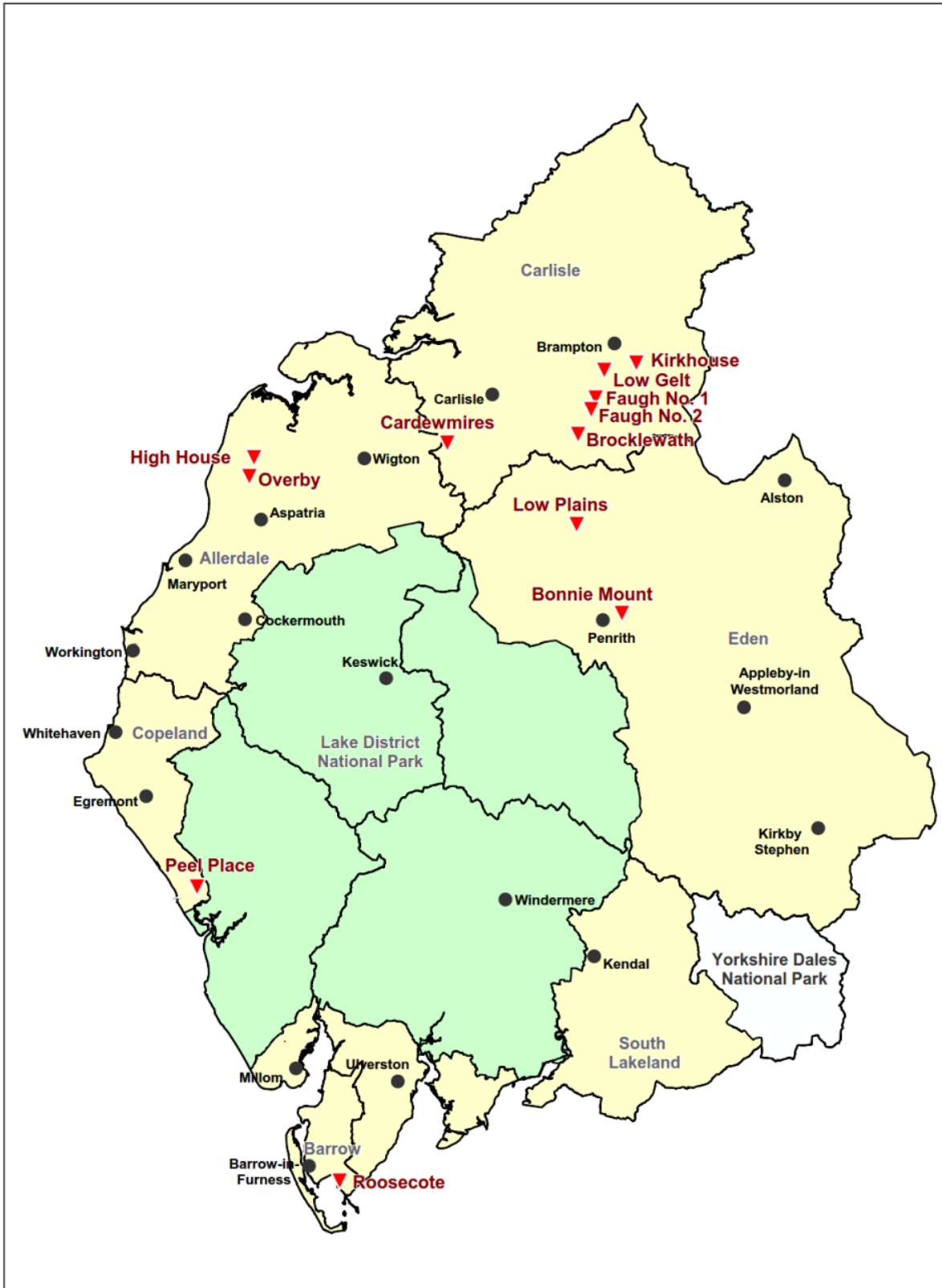
(see Map 3)

<b>Location</b>	<b>Expiry date*</b>	<b>Notes</b>
Bonnie Mount	2014 31 December	planning permission expired – but a full application was submitted for an enlarged working area to be operational until 2035 (granted late 2015)
Brocklewath	2021 31 August	no mineral extraction since change of owner in November 2013
Cardewmires	2025 1 December	- new owner in 2014 - proposed for Area of Search in MWLP
Faugh No.1	2024 30 June	- currently mothballed
Faugh No.2	2022 31 December	
High House**	2021 31 December	
Kirkhouse	2023 28 July	proposal for four Areas of Search submitted for MWLP in 2015
Low Gelt	2019 31 December	potential for time extension to be submitted
Low Plains	2033 30 September	application for time extension to 2033 allowed on Appeal in 2015
Overby No.2**	2026 31 December	
Peel Place	2025 26 April	time extension approved in 2015
Roosecote	2029 28 May	- also construction waste recycling to 31 Aug 2016 - proposal for Preferred Area submitted for MWLP in 2015

\* expiry dates as at October 2015

\*\* an Area of Search between High House and Overby Quarries is proposed for the MWLP

### Map 3 - Sand and gravel quarries



1:550000  
at A4 size

OS Grid Ref:  
NY3727

Scale  
0 4 8 12 km



Drawing Ref:

Plan Created on:

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**Table 11 – HIGH AND VERY HIGH SPECIFICATION ROADSTONE QUARRIES**  
(see Map 4)

Location	Geology	Expiry date	Notes
Ghyll Scour	igneous	2045 31 December	- Very High Specification Aggregate - time and physical extension approved 2015
Roan Edge	sandstone	2038 31 December	
Holmescales	sandstone	2042 21 February	- mothballed - potential for deepening quarry

**Map 4 – High and very high specification roadstone quarries**



**Table 13 - BUILDING STONE QUARRIES OUTSIDE THE NATIONAL PARK**

(see Map 5)

<b>Location</b>	<b>Geology</b>	<b>Expiry date*</b>	<b>Notes</b>
Bank End	sandstone	2042 22 February	- dormant
Baycliff Haggs	limestone	2042 21 February	- off cuts used as primary aggregate
Birkhams	sandstone	2030 31 July	- time extension approved April 2015 - no aggregate production
Blaze Fell	sandstone	2011 29 September	- awaiting restoration
Bowscar	sandstone	2042 21 February	- no aggregate production - application for physical extension submitted
Crag Nook	sandstone	2042 21 February	- no aggregate production
Flinty Fell	sandstone	2024 31 December	- waste used as aggregate
Grange	sandstone	2016 29 January	- no aggregate production - time extension to 2028 submitted
Kirkby Slate	slate	2042 21 February	- scoping request for amendment of extraction area submitted in 2015 - waste used as secondary aggregate
Lambhill	sandstone	2021 30 January	- no aggregate production
Larchwood	sandstone	2007 30 September	- awaiting restoration
Leipsic	sandstone	2022 20 December	- no aggregate production
Mousegill	sandstone	2016 30 June	- no aggregate production
Pickering	limestone	2023 26 February	- no aggregate production
Red Rock Canyon	sandstone	2025 10 December	- no aggregate production
Rooks	limestone	2017 31 October	- off cuts used as primary aggregate
Scratchmill Scar	sandstone	2016 30 January	- time extension to 2031 submitted - off cuts used as primary aggregate
Snowhill no.1	limestone	2017 31 May	- no longer primarily building stone - permitted aggregate production increased in 2014
Snowhill no.2	sandstone	2020 31 May	- primarily building stone - very limited aggregate production
Talkin Fell	sandstone	2011 3 February	- inactive
West Brownrigg	sandstone	2021 31 July	- off cuts used as primary aggregate

\* expiry dates as at October 2015

### Map 5 - Building stone quarries



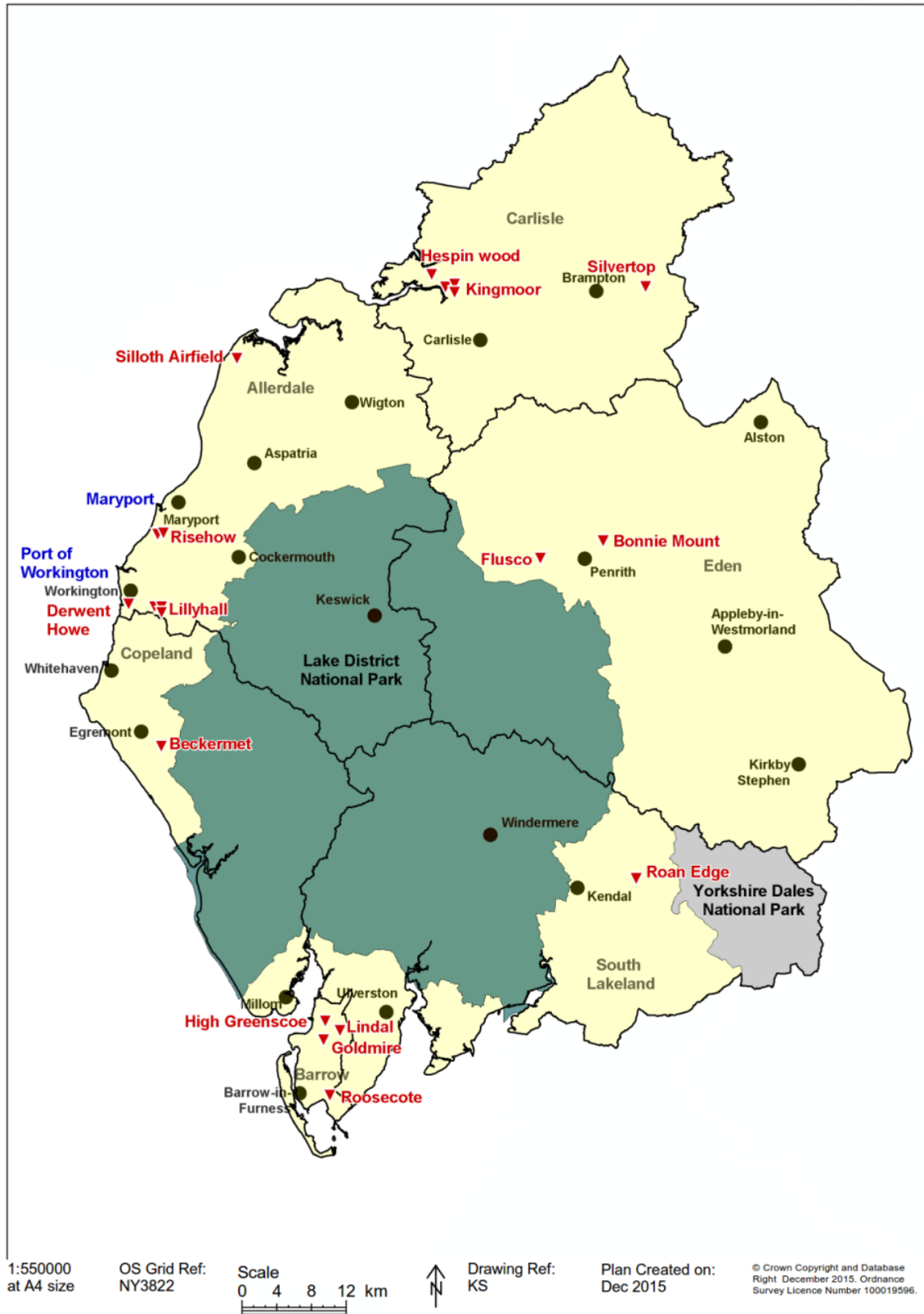
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**Table 14 – ALTERNATIVE AGGREGATES: MAIN PROCESSING FACILITIES**

(see Map 6)

<b>Facility</b>	<b>Material</b>	<b>Notes</b>
Silvertop Quarry	inert construction waste	permission to 16 Dec 2018
Flusco Quarry	household, commercial, industrial and construction waste	EA permit permission to 31 Dec 2031 (tied to cessation of adjacent landfill)
Roosecote Quarry	construction materials	permission to 31 Aug 2016
Goldmire Quarry	construction and demolition waste	EA permit permission to 31 Dec 2041
Bonnie Mount Quarry	inert building waste	permission to 7 Oct 2035
Roan Edge landfill	inert wastes	permission to 1 Nov 2016
Hespin Wood landfill	secondary aggregates	EA permit - permanent
Derwent Howe slag bank	slag extraction and recycling of wastes	permission to 31 Oct 2016
McKay Plant & Skip Hire, Lillyhall	construction and demolition waste	EA permit - permanent Lillyhall Industrial Estate
Derwent Recycling Services, Lillyhall	builder's, household and commercial waste	EA permit - permanent Lillyhall Industrial Estate
Phillip Carruthers Ltd, Lillyhall	concrete, rubble and bricks	EA permit - permanent Lillyhall Industrial Estate
Ashcroft Demolition (Cumbria) Ltd, Flimby, Maryport	construction waste	EA permit - permanent Risehow Industrial Estate
Thompson's Plant Hire Ltd, Flimby, Maryport	construction waste	EA permit - permanent Risehow Industrial Estate
NW Recycling, Kingmoor, Carlisle	construction and demolition waste	EA permit - permanent Rockcliffe Estate
Cubby Construction Ltd, Kingmoor, Carlisle	construction waste, road planings	EA permit - permanent Rockcliffe Estate
Tony Brown Aggregates Ltd, Diamond Yard, Lindal-in-Furness	stone, brick, etc.	EA permit - permanent
Lawson's Recycling Centre, Beckermot	construction waste	EA permit - permanent
D A Harrison, Silloth Airfield	inert	EA permit - permanent
Harry Barker Properties Ltd, High Greenscoe	construction waste	EA permit permission to 1 Nov 2024
Kingmoor Marshalling yards	concrete rail sleepers and spent ballast	EA permit - permanent

## Map 6 – Alternative aggregates sites and marine dredged landing points



## APPENDIX 4

### SUMMARY DETAILS OF CUMBRIA'S ECONOMY

The following SWOT assessment summarises the key Strengths, Weaknesses, Opportunities and Threats to sustainable economic growth in Cumbria. This analysis was undertaken by the Cumbria Local Enterprise Partnership and provides the justification for their proposed priority interventions and split of EU funding.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Good GVA growth over the past decade</li> <li>• Employment strong in manufacturing, hospitality, retail and food &amp; drink manufacturing</li> <li>• Number of internationally significant employers</li> <li>• World class skills in nuclear, energy and advanced manufacturing</li> <li>• Resilient economy due to diversity</li> <li>• Qualification profile largely mirrors UK</li> <li>• Internationally renowned tourism "brand"</li> <li>• Significant environmental assets: landscape and habitat quality, National Parks, AONBs, woodlands, water</li> <li>• Business survival rates high</li> <li>• High quality livestock</li> <li>• Product strength in the agri-food sector linked to food and drink provenance</li> <li>• M6 strategic connectivity</li> </ul>	<ul style="list-style-type: none"> <li>• Signs of slowing GVA growth and GVA per job remains low</li> <li>• Relatively weak employment in finance, IT and business sectors</li> <li>• Projected decline in working age population</li> <li>• Unemployment low but pockets of high rates and high youth unemployment</li> <li>• Business 'deaths' exceeding 'births'</li> <li>• Limited high speed broadband coverage</li> <li>• On-going loss of habitat for key species</li> <li>• Transport, planning and skills reported as barriers</li> <li>• Lack of affordable housing in some areas</li> <li>• Connectivity to core growth sites of Sellafield and Barrow via A590, A66 and from Carlisle</li> <li>• Reliance on CAP</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Potential to protect and build on high value manufacturing</li> <li>• Environment sector – low carbon, renewables, higher value agri-products, timber, access and nature based tourism</li> <li>• Nuclear Centre of Excellence with new missions including new build, MOX2 and LLWR</li> <li>• Supply chain development in our key sectors and exploitation of significant diversification opportunities</li> <li>• Exploit opportunities for bringing manufacturing back to the UK which has previously been moved offshore</li> <li>• Connecting Cumbria broadband roll out</li> <li>• Build further on our niche and artisan food and drink sector</li> <li>• World Heritage Site with Hadrian's Wall and the Lake District National Park World Heritage Site bid presents opportunities for increased international visitors</li> </ul>	<ul style="list-style-type: none"> <li>• Economic conditions worsen – further squeeze on household spending / struggling exports with weak Eurozone demand</li> <li>• Vulnerability to actions to reduce public sector deficit</li> <li>• Manufacturing jobs in Sellafield and BAE are heavily reliant on public spending</li> <li>• Demographic trends constrain workforce growth</li> <li>• Failure to take advantage of the opportunities presented by our key sectors</li> <li>• Effects of climate change – particularly risk from flooding in a number of areas</li> <li>• Access to water resources in West Cumbria, unless improved could act as a constraint to growth</li> <li>• Lack of investment on social and leisure infrastructure – needs a stronger offer for attracting and retaining working age families and individuals to settle in Cumbria</li> </ul>

source: EU Structural & Investment Funds Plan, Cumbria LEP, January 2014



## APPENDIX 5 MONITORING MATRIX

**Strategic Objective 1: That minerals and waste management developments will take due account of the issues of climate change, in particular through energy use and transport.**

Policies	Indicator(s)	Who?	How?	When?	Trigger for review of the Plan policy
SP1 Presumption in favour of sustainable development	Number of mineral/waste applications granted or refused in conflict with national guidance.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria.
SP12 Peat	Number of developments for time extensions to enable proper restoration, which will provide an environmental benefit.	CCC	DC decisions	On-going (annual monitoring)	Peat development permitted, which will not provide adequate restoration or environmental benefit.
SP13 Climate change mitigation and adaptation	Number of minerals/waste applications granted that meet the criteria set out in policy SP13.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP13.  Any appeal lost on proposals not meeting the criteria.
SP16 Restoration and aftercare and DC22 Restoration and aftercare	Minerals and waste developments delivering measurable enhancements to their surrounding environment and communities (e.g. through area strategies such as Biodiversity Action Plans).  Percentage of minerals workings covered by progressive restoration schemes.	CCC  Minerals/waste operators	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policies SP16 and DC22.  Any appeal lost on proposals not meeting the criteria.
DC1 Traffic and transport	Mineral and waste related applications granted, that propose to utilise sustainable transport methods.  Mineral and waste applications granted at sites identified in the Plan that would utilise the existing key arterial routes across Cumbria.  Number of substantiated complaints concerning lorry traffic.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC1.  Any appeal lost on proposals not meeting the criteria.

DC2 General criteria	Number of minerals/waste applications granted that meet the criteria set out in policy DC2.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC2.  Any appeal lost on proposals not meeting the criteria.
DC6 Cumulative environmental impacts	Minerals and waste applications granted with, or refused due to, unacceptable cumulative impacts.  Number of sites identified where there are existing minerals and/or waste developments occurring concurrently or successively.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC6.
DC7 Energy from Waste	Applications granted or refused for EfW facilities, and their capacity.	CCC EA Waste management companies	DC decisions National data survey Monitoring and enforcement	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC7.  Any appeal lost on proposals not meeting the criteria.
DC8 Renewable energy use and carbon reduction on existing minerals and waste sites	Renewable energy generation capacity at minerals and waste management facilities.  Quantity of waste managed through processes generating renewable energy.  Number of minerals and waste operations securing a % of their energy on site from renewable or low-carbon sources.	CCC EA Waste management companies Minerals operators	DC decisions Monitoring and enforcement	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC8.  Any appeal lost on proposals not meeting the criteria.

**Strategic Objective 2: That opportunities will be taken to secure improvements to Cumbria’s environment, communities, and local economy maximising potential benefits and avoiding adverse impacts.**

Policies	Indicator(s)	Who?	How?	When?	Trigger for review of the Plan policy
SP1 Presumption in favour of sustainable development	Number of mineral/waste applications granted or refused in conflict with national guidance.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria.
SP12 Peat	Number of developments for time extensions to enable proper restoration, which will	CCC	DC decisions	On-going (annual monitoring)	Peat development permitted, which will not provide

	provide an environmental benefit.				adequate restoration or environmental benefit.
SP13 Climate change mitigation and adaptation	Number of minerals/waste applications granted that meet the criteria set out in policy SP13.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP13.  Any appeal lost on proposals not meeting the criteria.
SP14 Economic benefit	Number of planning applications granted, which demonstrate their potential to provide economic benefit.  Number of planning applications granted, which create and/or protect jobs.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP14.
SP15 Environmental assets	International Sites: Minerals and waste planning applications granted and/or sites identified within the screening distance for HRA for Internationally Designated sites including: <ul style="list-style-type: none"> <li>• Ramsar sites</li> <li>• Special Protection Areas</li> <li>• Special Areas of Conservation</li> <li>• World Heritage Sites and</li> <li>• European and Global Geopark sites</li> </ul> National Sites: Minerals and waste planning applications granted and/or adopted at sites identified within <ul style="list-style-type: none"> <li>• Land affecting Sites of Special Scientific Interest</li> <li>• Areas of Outstanding Natural Beauty and their settings</li> <li>• National Parks and their settings</li> <li>• Heritage Coasts and their settings</li> <li>• Marine Conservation Zones</li> <li>• Nature Improvement Areas</li> <li>• National Nature Reserves</li> <li>• Ancient Woodlands</li> <li>• Limestone Pavements</li> <li>• Scheduled Monuments</li> <li>• Registered Historic Battlefields</li> <li>• Registered Historic Parks and Gardens and</li> </ul>	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP15.  Any appeal lost on proposals not meeting the criteria.

	<ul style="list-style-type: none"> <li>Listed Buildings</li> </ul> <p>Local Sites: Minerals and waste planning applications granted and/or sites identified within or adjacent to:</p> <ul style="list-style-type: none"> <li>Local Nature Reserves</li> <li>RSPB Nature Reserves</li> <li>County Wildlife Sites and Local Geological Sites</li> <li>Land that is of regional or local importance as a wildlife corridor or for the conservation of biodiversity</li> <li>Areas of regional or local importance identified by Local Nature Partnerships</li> <li>Cumbria Geodiversity Action Plan Sites</li> <li>Conservation Areas and their settings</li> <li>Landscape attributes and features essential to local landscape character</li> <li>Landscape features of major importance for wild flora and fauna</li> <li>Soil resources</li> <li>Veteran and other substantial trees, hedgerows and woodlands</li> <li>Lakes, tarns and rivers</li> <li>Undeveloped coast; and</li> <li>Locally listed archaeological sites, monuments, buildings and their settings.</li> </ul>				
SP16 Restoration and aftercare and DC22 Restoration and aftercare	<p>Minerals and waste developments delivering measurable enhancements to their surrounding environment and communities (e.g. through area strategies such as Biodiversity Action Plans).</p> <p>Percentage of minerals workings covered by progressive restoration schemes.</p>	CCC Minerals/waste operators	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policies SP16 and DC22.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>
SP17 Section 106 obligations	Minerals and waste applications granted with an associated Planning Obligation.	CCC	DC decisions	On-going (annual monitoring)	<p>Any Section 106 obligations that fail to sufficiently provide for environmental benefits and long term sustainability.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>

DC1 Traffic and transport	<p>Mineral and waste related applications granted that propose to utilise sustainable transport methods.</p> <p>Mineral and waste applications granted at sites identified in the Plan that would utilise the existing key arterial routes across Cumbria.</p> <p>Number of substantiated complaints concerning lorry traffic.</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC1.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>
DC2 General criteria	Number of minerals/waste applications granted that meet the criteria set out in policy DC2.	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC2.</p> <p>Any appeal lost on proposals not meeting the criteria</p>
DC3 Noise	Number of minerals/waste applications granted that meet the criteria set out in policy DC3.	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC3.</p> <p>Any appeal lost on proposals not meeting the criteria.</p> <p>Significant increase in enforcement action due to noise complaints.</p>
DC5 Dust	Number of minerals/waste applications granted that meet the criteria set out in policy DC5.	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC5.</p> <p>Any appeal lost on proposals not meeting the criteria.</p> <p>Significant increase in enforcement action due to dust complaints.</p>

DC6 Cumulative environmental impacts	Minerals and waste applications granted with, or refused due to, unacceptable cumulative impacts.  Number of sites identified where there are existing minerals and/or waste developments occurring concurrently or successively.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC6.
DC7 Energy from Waste	Applications granted or refused for EfW facilities and their capacity.	CCC  EA  Waste management companies	DC decisions  National data survey  Monitoring and enforcement	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC7.  Any appeal lost on proposals not meeting the criteria.
DC8 Renewable energy use and carbon reduction on existing minerals and waste sites	Renewable energy generation capacity at minerals and waste management facilities.  Quantity of waste managed through processes generating renewable energy.  Number of minerals and waste operations securing a % of their energy on site from renewable or low-carbon sources.	CCC  EA  Waste management companies  Minerals operators	DC decisions  Monitoring and enforcement	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC8.  Any appeal lost on proposals not meeting the criteria.
DC9 Criteria for waste management facilities	Number of waste planning applications granted or refused in accordance with the criteria set out in policy DC9.  Distance of waste management facilities from main settlements for which planning permission is granted.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC9.
DC12 Criteria for non-energy minerals development	Number of planning applications for non-energy minerals, outside Preferred Areas in line with criteria listed in policy DC12.  Number of planning applications for non-energy minerals, which do not conflict with other policies and are within Preferred Areas.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC12.
DC13 Criteria for energy minerals	Number of applications for energy minerals granted that meet the criteria set out in policy DC13.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC13.

DC17 Historic environment	Minerals and waste applications granted with, or refused due to, unacceptable adverse impacts on Cumbria's heritage assets and their settings, including: <ul style="list-style-type: none"> <li>• The two World Heritage Sites</li> <li>• Scheduled Monuments</li> <li>• Listed Buildings (Grade I or II*)</li> <li>• Solway Moss Registered Battlefield</li> <li>• Registered Historic Parks and Gardens</li> </ul>	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC17.  Any appeal lost on proposals not meeting the criteria.
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**Strategic Objective 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.**

Policies	Indicator(s)	Who?	How?	When?	Trigger for review of the Plan policy
SP2 Provision for waste	The gap between capacity of existing facilities and forecasted arisings is met.  Net amount of waste imported/exported per annum.	CCC  EA	Planning permission data  Licensed waste management facility data	On-going (annual monitoring)	Failure to meet targets set out within WNA (reduce the levels of waste disposed to landfill to no more than 10% by 2030 and to increase current levels of recycling to 65% for C&I and in line with the adopted strategy for LACW).  Waste capacity in the Plan area increases/ decreases in comparison with waste arisings for each relevant waste stream.
SP3 Waste capacity	Number of new waste facilities delivered in accordance with site allocations.  Number of facilities delivered on unallocated sites.  Waste capacity lost from early closure of sites or loss of facilities, which will impact on existing capacity.	CCC	DC decisions	On-going (annual monitoring)	Site allocations not coming forward for development and a significant number of non allocated sites are developed.  Landfill as a % share of total waste increases over a 2 year period.

					Loss of existing capacity indicating shortfall in capacity for managing waste locally.
SP5 Development criteria for low level radioactive waste sites	Number of low level radioactive waste facilities permitted, that meet the criteria set out in policy SP5.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria.  Any appeal lost on proposals not meeting the criteria.
SP6 Higher activity radioactive wastes treatment, management and storage	Number of higher activity radioactive waste facilities permitted, that meet the criteria set out in policy SP6.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria.  Any appeal lost on proposals not meeting the criteria.
DC7 Energy from Waste	Applications granted or refused for EfW facilities, and their capacity.	CCC EA Waste management companies	DC decisions National data survey Monitoring and enforcement	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC7.  Any appeal lost on proposals not meeting the criteria.
DC10 Criteria for landfill and landraise	Number of planning applications granted or refused for additional landfill that meet the criteria set out in policy DC10.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC10.  Any appeal lost on proposals not meeting the criteria.  Landfill as a % share total of waste increases over a 2 year period.
DC11 Inert waste for agricultural improvement	Number of planning applications granted or refused for inert waste to be used for agricultural improvement, that meet the criteria set out in policy DC11.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out



					in policy DC11. Any appeal lost on proposals not meeting the criteria.
SAP1 Household Waste Recycling Centres (HWRCs)	Policy is implemented through the development application stage.	CCC	DC decisions	On-going (annual monitoring)	Any planning application for HWRCs not located on the sites identified in policy SAP1.
SAP2 Waste treatment and management facilities	Policy is implemented through the development application stage.	CCC	DC decisions	On-going (annual monitoring)	Any planning application for waste treatment and management facilities not located on the sites identified in policy SAP2.
SAP3 Low Level radioactive Wastes (LLW) treatment, management storage and disposal	Policy is implemented through the development application stage.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications for Low Level radioactive Waste treatment, management, storage and disposal sites not located on the sites identified in policy SAP3.

**Objective 4: That whilst aiming for net self-sufficiency in waste imports and exports, waste will be managed as near as practicable to where it is produced, without endangering people's health and without harming the environment.**

Policies	Indicator(s)	Who?	How?	When?	Trigger for review of the Plan policy
SP2 Provision for waste	The gap between capacity of existing facilities and forecasted arisings is met.  Net amount of waste imported/exported per annum.	CCC EA	Planning permission data  Licensed waste management facility data	On-going (annual monitoring)	Failure to meet targets set out within WNA (reduce the levels of waste disposed to landfill to no more than 10% by 2030 and to increase current levels of recycling to 65% for C&I and in line with the adopted strategy for LACW).  Waste capacity in the Plan area increases/ decreases in comparison with waste arisings for each relevant waste stream.

SP3 Waste capacity	<p>Number of new waste facilities delivered in accordance with site allocations.</p> <p>Number of facilities delivered on unallocated sites.</p> <p>Waste capacity lost from early closure of sites or loss of facilities, which will impact on existing capacity.</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Site allocations not coming forward for development and a significant number of non allocated sites are developed.</p> <p>Landfill as a % share of total waste increases over a 2 year period.</p> <p>Loss of existing capacity indicating shortfall in capacity for managing waste locally.</p>
SP4 Transparent decision making	Number of radioactive waste facilities permitted, that demonstrate consideration of the principles set out in Policy SP4.	CCC	DC decisions	On-going (annual monitoring)	Number of appropriate applications approved, which do not take into consideration the principles of sustainable development, precaution and proximity, and the waste hierarchy.
SP5 Development criteria for low level radioactive waste sites	Number of low level radioactive waste facilities permitted, that meet the criteria set out in policy SP5.	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP5.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>
SP6 Higher activity radioactive wastes treatment, management and storage	Number of higher activity radioactive waste facilities permitted, that meet the criteria set out in policy SP6.	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP6.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>
SP10 Marine dredged aggregates	Number of applications for marine dredged aggregates granted, that meet the criteria set out in Policy SP10.	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP10.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>

<p>SP13 Climate change mitigation and adaptation</p>	<p>Number of minerals/waste applications granted that meet the criteria set out in policy SP13.</p>	<p>CCC</p>	<p>DC decisions</p>	<p>On-going (annual monitoring)</p>	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP13.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>
<p>SP15 Environmental assets</p>	<p>International Sites: Minerals and waste planning applications granted and/or sites identified within the screening distance for HRA for Internationally Designated sites including:</p> <ul style="list-style-type: none"> <li>• Ramsar sites</li> <li>• Special Protection Areas</li> <li>• Special Areas of Conservation</li> <li>• World Heritage Sites and</li> <li>• European and Global Geopark sites</li> </ul> <p>National Sites: Minerals and waste planning applications granted and/or adopted at sites identified within</p> <ul style="list-style-type: none"> <li>• Land affecting Sites of Special Scientific Interest.</li> <li>• Areas of Outstanding Natural Beauty and their settings</li> <li>• National Parks and their settings</li> <li>• Heritage Coasts and their settings</li> <li>• Marine Conservation Zones</li> <li>• Nature Improvement Areas</li> <li>• National Nature Reserves</li> <li>• Ancient Woodlands</li> <li>• Limestone Pavements</li> <li>• Scheduled Monuments</li> <li>• Registered Historic Battlefields</li> <li>• Registered Historic Parks and Gardens and</li> <li>• Listed Buildings</li> </ul> <p>Local Sites: Minerals and waste planning applications granted and/or sites identified within or adjacent to:</p> <ul style="list-style-type: none"> <li>• Local Nature Reserves</li> <li>• RSPB Nature Reserves</li> <li>• County Wildlife Sites and Local Geological Sites</li> <li>• Land that is of regional or local importance as a wildlife corridor or for the conservation of biodiversity</li> <li>• Areas of regional or local importance identified by Local</li> </ul>	<p>CCC</p>	<p>DC decisions</p>	<p>On-going (annual monitoring)</p>	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP15.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>

	<p>Nature Partnerships</p> <ul style="list-style-type: none"> <li>• Cumbria Geodiversity Action Plan Sites</li> <li>• Conservation Areas and their settings</li> <li>• Landscape attributes and features essential to local landscape character</li> <li>• Landscape features of major importance for wild flora and fauna</li> <li>• Soil resources</li> <li>• Veteran and other substantial trees, hedgerows and woodlands</li> <li>• Lakes, tarns and rivers</li> <li>• Undeveloped coast and</li> <li>• Locally listed archaeological sites, monuments, buildings and their settings.</li> </ul>				
DC1 Traffic and transport	<p>Mineral and waste related applications granted that propose to utilise sustainable transport methods.</p> <p>Mineral and waste applications granted at sites identified in the Plan that would utilise the existing key arterial routes across Cumbria.</p> <p>Number of substantiated complaints concerning lorry traffic.</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC1.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>
DC2 General criteria	<p>Number of minerals/waste applications granted that meet the criteria set out in policy DC2.</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC2.</p> <p>Any appeal lost on proposals not meeting the criteria</p>
DC6 Cumulative environmental impacts	<p>Minerals and waste applications granted with, or refused due to, unacceptable cumulative impacts.</p> <p>Number of sites identified where there are existing minerals and/or waste developments occurring concurrently or successively.</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC6.</p>
DC9 Criteria for waste management facilities	<p>Number of waste planning applications granted or refused in accordance with the criteria set out in policy DC9.</p> <p>Distance of waste management facilities from main settlements</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC9.</p>

	for which planning permission is granted.				
DC16 Biodiversity and geodiversity	Number of minerals and waste applications, granted or refused, with mitigation for adverse impacts on biodiversity or geodiversity.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC16.  Any appeal lost on proposals not meeting the criteria.
DC19 Flood risk and DC20 The water environment	Number of applications granted with, or refused due to, potentially unacceptable, adverse impacts on waterbodies, groundwater SPZs, areas of flood risk, critical drainage areas, coastal waters, surface water and private water supplies.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC19 and policy DC20.
SAP1 Household Waste Recycling Centres (HWRCs)	Policy is implemented through the development application stage.	CCC	DC decisions	On-going (annual monitoring)	Any planning application for HWRCs not located on the sites identified in policy SAP1.
SAP2 Waste treatment and management facilities	Policy is implemented through the development application stage.	CCC	DC decisions	On-going (annual monitoring)	Any planning application for waste treatment and management facilities not located on the sites identified in policy SAP2.
SAP3 Low Level radioactive Wastes (LLW) treatment, management storage and disposal	Policy is implemented through the development application stage.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications for Low Level radioactive Waste treatment, management, storage and disposal sites not located on the sites identified in policy SAP3.

**Objective 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.**

Policies	Indicator(s)	Who?	How?	When?	Trigger for review of the Plan policy
SP7 Minerals provision and SP8 Minerals safeguarding	Size of landbanks for sand and gravel.  Identification of sufficient sites for sand and gravel, crushed rock, high specification roadstone, brickmaking mudstones, slate and gypsum.	CCC  Mineral operators	Maintain appropriate landbank for mineral type, in line with most recent Local Aggregate Assessment	On-going (annual monitoring)	Landbank falls below target for more than two years.  Significant number of applications approved which do not satisfy the strategy for the

	10 year and 3 year average sales for aggregate minerals  All proposals accord with amenity and environmental protection policies.				supply of minerals within Cumbria.
SP9 Strategic areas for new minerals development	Planning applications, granted or refused, for non-minerals development within Strategic Areas.	CCC  Mineral operators	Aggregate monitoring surveys  DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) outside of the Strategic Areas identified by policy SP9.
SP10 Marine dredged aggregates	Number of applications for marine dredged aggregates granted, that meet the criteria set out in policy SP10.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP10.  Any appeal lost on proposals not meeting the criteria.
SP11 Industrial limestones	Number of planning applications granted or refused for the extraction of industrial limestone.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP11.
SP12 Peat	Number of developments for time extensions to enable proper restoration, which will provide an environmental benefit.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP12.  Any appeal lost on proposals not meeting the criteria.
SP13 Climate change mitigation and adaptation	Number of minerals/waste applications granted that meet the criteria set out in policy SP13.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP13.  Any appeal lost on proposals not meeting the criteria.
DC1 Traffic and transport	Mineral and waste related applications granted that propose to utilise sustainable transport methods.  Mineral and waste applications granted and/or adopted at sites identified in the Plan that would utilise the existing key arterial	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC1.

	<p>routes across Cumbria.</p> <p>Number of substantiated complaints concerning lorry traffic</p>				Any appeal lost on proposals not meeting the criteria.
DC2 General criteria	Number of minerals/waste applications granted that meet the criteria set out in policy DC2.	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC2.</p> <p>Any appeal lost on proposals not meeting the criteria</p>
DC6 Cumulative environmental impacts	<p>Minerals and waste applications granted with, or refused due to, unacceptable cumulative impacts.</p> <p>Number of sites identified where there are existing minerals and/or waste developments occurring concurrently or successively.</p>	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC6.
DC12 Criteria for non-energy minerals development	<p>Number of planning applications for non-energy minerals, outside Preferred Areas in line with criteria listed in policy DC12.</p> <p>Number of planning applications for non-energy minerals, which do not conflict with other policies and are within Preferred Areas.</p>	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC12.
DC13 Criteria for energy minerals	Number of applications for energy minerals granted, that meet the criteria set out in policy DC13.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC13.
DC14 Review of Mineral Permissions	Number of applications for new conditions granted, that meet the criteria set out in policy DC14.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC14.
SAP4 Areas for minerals	Policy is implemented through the development application stage.	CCC	DC decisions	On-going (annual monitoring)	Any planning application for minerals development that falls outside of the Preferred Areas or Areas of Search identified in policy SAP4.
SAP6 Safeguarding of existing and potential	Policy is implemented through the development application stage.	CCC	DC decisions	On-going (annual monitoring)	Any planning application for railheads or wharves not

railheads and wharves					located on the sites identified in policy SAP6.
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**Objective 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.**

Policies	Indicator(s)	Who?	How?	When?	Trigger for review of the Plan policy
SP7 Minerals provision and SP8 Minerals safeguarding	<p>Number of non-exempt, non-minerals planning applications granted by Local Planning Authorities within safeguarded areas.</p> <p>Percentage of approved applications that do not have an adverse effect on the Mineral Safeguarding Areas as identified on the Policies Map.</p>	<p>CCC</p> <p>Mineral operators</p>	<p>Aggregate monitoring surveys</p> <p>DC decisions</p>	Annual data collection from the previous calendar year	<p>If landbank falls below 7 years for sand and gravel or 10 years for crushed rock.</p> <p>Number of approved proposals (within the Plan period) that do not meet the criteria set out within SP7 and SP8 and result in sterilisation.</p>
SAP4 Areas for minerals	Policy is implemented through the development application stage.	CCC	DC decisions	On-going (annual monitoring)	Any planning application for minerals development that falls outside of the Preferred Areas or Areas of Search identified in policy SAP4.

**Objective 7: That mineral resources will be identified and safeguarded.**

Policies	Indicator(s)	Who?	How?	When?	Trigger for review of the Plan policy
SP7 Minerals provision, SP8 Minerals safeguarding and DC15 Minerals Safeguarding	<p>Number of non-exempt, non-minerals planning applications granted by Local Planning Authorities within safeguarded areas.</p> <p>Percentage of approved applications that do not have an adverse effect on the Mineral Safeguarding Areas as identified on the Policies Map.</p>	<p>CCC</p> <p>All Local Planning Authorities</p>	DC decisions	On-going (annual monitoring)	<p>If landbank falls below 7 years for sand and gravel or 10 years for crushed rock.</p> <p>Number of approved proposals (within the Plan period) that do not meet the criteria set out within SP7, SP8 and DC15 and result in sterilisation.</p>



**Objective 8: That the economic benefits of minerals and waste management developments will be optimised without harming the environment.**

Policies	Indicator (s)	Who?	How?	When?	Trigger for review of the Plan policy
SP3 Waste capacity	<p>Number of new waste facilities delivered in accordance with site allocations.</p> <p>Number of facilities delivered on unallocated sites.</p> <p>Waste capacity lost from early closure of sites or loss of facilities, which will impact on existing capacity.</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Site allocations not coming forward for development and a significant number of non allocated sites are developed.</p> <p>Landfill as a % share of total waste increases over a 2 year period.</p> <p>Loss of existing capacity indicating shortfall in capacity for managing waste locally.</p>
SP9 Strategic areas for new minerals development	Number of planning applications granted or refused for non mineral development within Strategic Areas.	CCC Mineral operators	Aggregate monitoring surveys DC decisions	Annual data collection from the previous calendar year	Any planning applications approved outside the Strategic Areas.
SP14 Economic benefit	<p>Number of planning applications granted, which demonstrate their potential to provide economic benefit.</p> <p>Number of planning applications granted, which create and/or protect jobs.</p>	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP14.
SP16 Restoration and aftercare and DC22 Restoration and aftercare	<p>Minerals and waste developments delivering measurable enhancements to their surrounding environment and communities (e.g. through area strategies such as Biodiversity Action Plans).</p> <p>% of minerals workings covered by progressive restoration schemes.</p>	CCC Minerals/ waste operators	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policies SP15 and DC22.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>
DC12 Criteria for non-energy minerals development	<p>Number of planning applications for non-energy minerals, outside Preferred Areas, in line with criteria listed in policy DC12.</p> <p>Number of planning applications for non-energy minerals, which do not conflict with other policies and are within Preferred Areas.</p>	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC12.
DC13 Criteria for energy minerals	Number of applications for energy minerals granted, that meet the criteria set out in policy DC13.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period)

					that do not meet the criteria set out in policy DC13.
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**Objective 9: That the overall quality of Cumbria’s 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.**

<b>Policies</b>	<b>Indicator(s)</b>	<b>Who?</b>	<b>How?</b>	<b>When?</b>	<b>Trigger for review of the Plan policy</b>
SP16 Restoration and aftercare and DC22 Restoration and aftercare	Minerals and waste developments delivering measurable enhancements to their surrounding environment and communities (e.g. through area strategies such as Biodiversity Action Plans).  % of minerals workings covered by progressive restoration schemes.	CCC  Minerals/ waste operators	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policies SP16 and DC22.  Any appeal lost on proposals not meeting the criteria.
SP17 Section 106 obligations	Minerals and waste applications granted with an associated Planning Obligation.	CCC	DC decisions	On-going (annual monitoring)	Any Section 106 obligations that fail to sufficiently provide for environmental benefits and long term sustainability.  Any appeal lost on proposals not meeting the criteria.
SP18 Monitoring and enforcing planning control	Alleged breaches of planning permission/control reported to the Development Control and Regulation Committee.  Site monitoring of all waste management facilities and mineral developments.	CCC	DC decisions	On-going (annual monitoring)	Number of sites not monitored within 12 months of gaining planning permission.  An increase in use of enforcement on previous monitoring period.
DC14 Review of Mineral Permissions	Number of applications for new conditions granted, that meet the criteria set out in policy DC14.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC14.
DC10 Criteria for landfill and landraise	Number of planning applications granted or refused for landfill that meet the criteria set out in Policy DC10.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC10.  Any appeal lost on proposals not meeting the criteria.

DC11 Inert waste for agricultural improvement	Number of planning applications, granted or refused, for the use of inert waste for agricultural improvement, that meet the criteria set out in policy DC11.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC11.  Any appeal lost on proposals not meeting the criteria.
DC16 Biodiversity and geodiversity	Number of minerals and waste applications, granted or refused, with mitigation for adverse impacts on biodiversity or geodiversity.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC16.  Any appeal lost on proposals not meeting the criteria.
DC18 Landscape and visual impact	Number of minerals and waste planning applications refused on grounds of significantly adverse impacts on landscape and visual impact.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC18.  Any appeal lost on proposals not meeting the criteria.
DC19 Flood risk and DC20 The water environment	Number of applications granted with, or refused due to, potentially unacceptable, adverse impacts on waterbodies, groundwater SPZs, areas of flood risk, critical drainage areas, coastal waters, surface water and private water supplies.	CCC EA	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC19 and policy DC20.  Any appeal lost on proposals not meeting the criteria.

**Objective 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.**

Policies	Indicator (s)	Who?	How?	When?	Trigger for review of the Plan policy
SP13 Climate change mitigation and adaptation	Number of minerals/waste applications granted, that meet the criteria set out in policy SP13.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP13.  Any appeal lost on proposals not meeting the criteria.

<p>SP15 Environment- al assets</p>	<p>International Sites: Minerals and waste planning applications granted and/or sites identified within the screening distance for HRA for Internationally Designated sites including:</p> <ul style="list-style-type: none"> <li>• Ramsar sites</li> <li>• Special Protection Areas</li> <li>• Special Areas of Conservation</li> <li>• World Heritage Sites and</li> <li>• European and Global Geopark sites</li> </ul> <p>National Sites: Minerals and waste planning applications granted and/or adopted at sites identified within</p> <ul style="list-style-type: none"> <li>• Land affecting Sites of Special Scientific Interest.</li> <li>• Areas of Outstanding Natural Beauty and their settings</li> <li>• National Parks and their settings</li> <li>• Heritage Coasts and their settings</li> <li>• Marine Conservation Zones</li> <li>• Nature Improvement Areas</li> <li>• National Nature Reserves</li> <li>• Ancient Woodlands</li> <li>• Limestone Pavements</li> <li>• Scheduled Monuments</li> <li>• Registered Historic Battlefields</li> <li>• Registered Historic Parks and Gardens and</li> <li>• Listed Buildings</li> </ul> <p>Local Sites: Minerals and waste planning applications granted and/or sites identified within or adjacent to:</p> <ul style="list-style-type: none"> <li>• Local Nature Reserves</li> <li>• RSPB Nature Reserves</li> <li>• County Wildlife Sites and Local Geological Sites</li> <li>• Land that is of regional or local importance as a wildlife corridor or for the conservation of biodiversity</li> <li>• Areas of regional or local importance identified by Local Nature Partnerships</li> <li>• Cumbria Geodiversity Action Plan Sites</li> <li>• Conservation Areas and their settings</li> <li>• Landscape attributes and features essential to local landscape character</li> <li>• Landscape features of major importance for wild flora and fauna</li> </ul>	<p>CCC</p>	<p>DC decisions</p>	<p>On-going (annual monitoring)</p>	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP15.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>
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	<ul style="list-style-type: none"> <li>• Soil resources</li> <li>• Veteran and other substantial trees, hedgerows and woodlands</li> <li>• Lakes, tarns and rivers</li> <li>• Undeveloped coast and</li> <li>• Locally listed archaeological sites, monuments, buildings and their settings.</li> </ul>				
SP18 Monitoring and enforcing planning control	<p>Alleged breaches of planning permission/control reported to the Development Control and Regulation Committee.</p> <p>Site monitoring of all waste management facilities and mineral developments.</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Number of sites not monitored within 12 months of gaining planning permission.</p> <p>An increase in use of enforcement on previous monitoring period.</p>
DC1 Traffic and transport	<p>Mineral and waste related applications granted, that propose to utilise sustainable transport methods.</p> <p>Mineral and waste applications granted at sites identified in the Plan that would utilise the existing key arterial routes across Cumbria.</p> <p>Number of substantiated complaints concerning lorry traffic.</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC1.</p> <p>Any appeal lost on proposals not meeting the criteria.</p>
DC2 General criteria	<p>Number of minerals/waste applications granted, that meet the criteria set out in policy DC2.</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC2.</p> <p>Any appeal lost on proposals not meeting the criteria</p>
DC3 Noise	<p>Number of minerals/waste applications granted, that meet the criteria set out in policy DC3.</p>	CCC	DC decisions	On-going (annual monitoring)	<p>Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC3.</p> <p>Any appeal lost on proposals not meeting the criteria.</p> <p>Significant increase in enforcement action due to noise complaints.</p>

DC4 Quarry blasting	Number of planning applications granted for quarry blasting, that meet the criteria set out in policy DC4.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC4.  Any increase in enforcement action due to quarry blasting.
DC5 Dust	Number of minerals/waste applications granted, that meet the criteria set out in policy DC5.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC5.  Any appeal lost on proposals not meeting the criteria.  Significant increase in enforcement action due to dust complaints.
DC6 Cumulative environmental impacts	Minerals and waste applications granted with, or refused due to, unacceptable cumulative impacts.  Number of sites identified where there are existing minerals and/or waste developments occurring concurrently or successively.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC6.
DC8 Renewable energy use and carbon reduction on existing minerals and waste sites	Renewable energy generation capacity at minerals and waste management facilities.  Quantity of waste managed through processes generating renewable energy.  Number of minerals and waste operations securing a % of their energy on site from renewable or low-carbon sources.	CCC EA Waste management companies Minerals operators	DC decisions Monitoring and enforcement	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC8.  Any appeal lost on proposals not meeting the criteria.
DC9 Criteria for waste management facilities	Number of waste planning applications granted or refused in accordance with the criteria set out in policy DC9.  Distance of waste management facilities from main settlements for which planning permission is granted.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC9.
DC16 Biodiversity and geodiversity	Minerals and waste applications, granted or refused, with mitigation for adverse impacts on biodiversity or geodiversity.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period)

					that do not meet the criteria set out in policy DC16.
DC17 Historic environment	Minerals and waste applications granted with, or refused due to, unacceptable adverse impacts on Cumbria's heritage assets and their settings, including: <ul style="list-style-type: none"> <li>• The two World Heritage Sites</li> <li>• Scheduled Monuments</li> <li>• Listed Buildings (Grade I/II*)</li> <li>• Solway Moss Registered Battlefield</li> <li>• Registered Historic Parks and Gardens</li> </ul>	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC17.  Any appeal lost on proposals not meeting the criteria.
DC19 Flood risk and DC20 The water environment	Number of applications granted with, or refused due to, potentially unacceptable, adverse impacts on waterbodies, groundwater SPZs, areas of flood risk, critical drainage areas, coastal waters, surface water and private water supplies.	CCC EA	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC19 and policy DC20.  Any appeal lost on proposals not meeting the criteria.
DC21 Protection of soil resources	Number of minerals and waste applications granted, that protect soil resources.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC21.  Any appeal lost on proposals not meeting the criteria.

**Objective 11: That there will be increased community and stakeholder involvement and ownership of initiatives and planning for sustainable minerals and waste developments.**

Policies	Indicator(s)	Who?	How?	When?	Trigger for review of the Plan policy
SP1 Presumption in favour of sustainable development	Mineral/waste applications granted or refused in conflict with national guidance.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria in policy SP1.
SP5 Development criteria for low level radioactive waste sites	Number of low level radioactive waste facilities permitted, that meet the criteria set out in policy SP5.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria in policy SP5.  Any appeal lost on proposals not

					meeting the criteria.
SP14 Economic benefit	Number of planning applications granted, which demonstrate their potential to provide economic benefit.  Number of planning applications granted, which create and/or protect jobs.	CCC	DC decisions	On-going (annual monitoring)	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy SP14.
SP17 Section 106 obligations	Minerals and waste applications granted with an associated Planning Obligation.	CCC	DC decisions	On-going (annual monitoring)	Any Section 106 obligations that fail to sufficiently provide for environmental benefits and long term sustainability.  Any appeal lost on proposals not meeting the criteria.
SP18 Monitoring and enforcing planning control	Number of applications granted, which meet the criteria set out in policy SP17.	CCC  Waste management companies  Minerals operators	DC decisions  Site monitoring	Ongoing throughout life of development	No breaches of planning control on applications permitted during the Plan period.
DC2 General criteria	Number of applications granted, which meet the criteria set out in policy DC2	CCC  Waste management companies  Minerals operators	DC decisions Site monitoring	Ongoing throughout life of development	Any planning applications approved (within the Plan period) that do not meet the criteria set out in policy DC2.