



# **HABITATS REGULATIONS ASSESSMENT**

## **Cumbria Minerals and Waste Development Framework**

### **REPEATED SITE ALLOCATIONS POLICIES AND PROPOSALS MAP**

#### **REGULATION 30**

This Habitats Regulations Assessment is for the Cumbria Minerals and Waste Development Framework Site Allocations Policies and Proposals Map. These identify the sites and areas of land that the County Council considers are needed for working and for safeguarding minerals and for managing wastes over the plan period to 2020.

**JANUARY 2012**



## CONTENTS

Summary and conclusions.....	1
1. The need for Habitats Regulations Assessment.....	3
2. The Site Allocations Policies.....	7
3. Assessments of the proposed sites.....	11
Appendices	
1. The types of waste management facilities.....	39
2. The location of sites in relation to European Wildlife Sites.....	42
3. The conservation objectives of the European Wildlife Sites.....	43
Maps of the European Wildlife Sites and locations of proposed sites.....	66



## SUMMARY AND CONCLUSIONS

This is a Habitats Regulations Assessment of the sites that Cumbria County Council is proposing for waste management facilities, Preferred Areas for extending quarries or other mineral workings and for safeguarding potential rail facilities.

The conclusion of the Assessment is that the Site Allocations Policies are not likely to adversely affect the integrity of any European Wildlife Site. At the stage when detailed development proposals are being considered, it is concluded that eleven of the proposed sites are likely to require 'appropriate assessment'. This would be to assess the mitigation measures that could be needed to ensure that they do not affect the integrity of a European Wildlife Site (EWS). However, none of the mitigations that are considered likely to be needed, would involve measures that are not common practice.

The assessment uses existing information and is at a higher level than would be required for planning application proposals. A consequence is that it identifies more sites, as being likely to have impacts on a European site, than subsequent assessments will, when details of specific proposals are known. It, therefore, represents a precautionary approach.

The main points to be drawn from the assessment are considered to be that:-

- none of the sites are within a European Wildlife Site, therefore, none of them would result in direct loss of habitat within one;
- where it seems likely that development of a proposed site could affect a European Wildlife Site, the mitigation measures that could be required, to counteract the effects, would commonly be requirements of planning permissions, or of Environment Agency permits, for the developments that are proposed;
- none of the mitigation measures would involve scientific uncertainty about their effectiveness;
- most of the mitigation would involve 'avoidance' or 'cancellation' measures to eliminate the likelihood of effects on a European site or to cancel them out before they are felt;
- where the mitigation could be considered to involve 'reduction' measures to reduce the significance of the effects, or make them unlikely to occur, other developments, which could lead to cumulative effects, have been identified;
- compensatory measures have not been taken into account in assessing the likelihood of significant effects. For some sites, these are likely to be required under the provisions of species protection legislation.

Maps of the sites are included with the assessments of the sites. The distances of the sites from the Special Area of Conservation and/or Special Protection Area that is/are relevant for them are shown in the table in Appendix 2. Maps showing the locations of the sites in relation to the European Wildlife Sites are included at the end of this report.

The sites have been assessed against the relevant conservation objectives of these European Sites. The conservation objectives are for the Sites of Special Scientific Interest (SSSI) that comprise the European Sites. These are set out in Appendix 3. The relevant objectives are those that relate to the reasons the European Site has been designated. In some cases, more than one set of conservation objectives has had to be considered because there is more than one SSSI within the European Site. In addition, because of their location, some sites have had to be assessed against more than one European Site. In the assessments of sites, the presence of a European protected species is only mentioned if it is one of the reasons for designating the site.

## CONCLUSIONS OF ASSESSMENT

Site		Type of development	Effect on European Wildlife Site if no mitigation
AL3	Oldside, Workington	Waste treatment and Energy from Waste	Likely effect
AL8	Lillyhall waste management centre, Workington	Waste treatment, Energy from Waste and Household Waste Recycling Centre	No
AL17	Solway Road, Workington	Household Waste Recycling Centre	No
AL18	Port of Workington	Waste treatment and Energy from Waste	Likely effect
AL29	Auction Mart, Cockermouth	Household Waste Recycling Centre	No
AL31	Lillyhall landfill, Workington	Landfill	No
AL32	Siddick, Workington	Railhead	No
AL34	Former Alcan complex, Workington	Waste treatment	No
AL35	Risehow industrial estate, Flimby	Household Waste Recycling Centre	No
BA10	Goldmire quarry, Barrow	Landfill	No
M27	Roose sand quarry, Barrow	Quarrying	No
CA11	Willowholme, Carlisle	Waste treatment	Likely effect
CA24	Hespin Wood landfill, Carlisle	Landfill	Likely effect
CA30	Kingmoor Road, Carlisle	Waste treatment	No
CA31	Kingmoor Park East, Carlisle	Waste treatment and Energy from Waste	Likely effect
CO1	Whitehaven Commercial Park	Household Waste Recycling Centre	No
CO11	Bridge End, Egremont	Waste treatment and Household Waste Recycling Centre	Likely effect
CO34	Redhills, Millom	Household Waste Recycling Centre	Likely effect
CO35	Low Level Waste Repository	LLW	Likely effect
CO36	Sellafield	LLW and VLLW	Likely effect
M31	Salthouse, Millom	Railhead	Likely effect
ED1	Blencowe quarry, Penrith	Waste treatment	No
ED7	Thackwood	Landfill	No
ED10	Crosscroft, Appleby	Household Waste Recycling Centre	No
ED31	Flusco, Penrith	Waste treatment	No
M18	Stamphill, Long Marton	Gypsum mine	Likely effect
SL1	Kendal Fell quarry	Waste treatment and Household Waste Recycling Centre	No

## **1. The need for Habitats Regulations Assessment**

- 1.1 The wildlife areas that are given the greatest level of protection from the impacts of development, by international and national legislation, are those that have been formally identified as European Wildlife Sites (EWS). These are designated as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Collectively, the SACs and SPAs form part of a European network of protected areas known as Natura 2000. Some of the SPAs were listed earlier under the Convention on Wetlands of International Importance; these are known as Ramsar sites.
- 1.2 As a matter of policy, the Government applies similar procedures in respect of Ramsar sites, candidate SACs and potential SPAs, even though these are not European sites as a matter of law.
- 1.3 All land use plans require Habitats Regulations Assessment in accordance with the Habitats Directive 92/43/EEC, enacted in the UK through the Conservation of Habitats and Species Regulations 2010. This is to identify any negative effects that they are likely to have on a European nature conservation site in view of its conservation objectives, either alone or in combination with other plans or projects (*Regulation 61*).
- 1.4 Assessments are required to consider whether the plan would be likely to have a significant effect on any European site. The European Court has held that this means that the risk of the effect occurring cannot be ruled out on the basis of objective information. A significant effect is one that could potentially undermine the site's conservation objectives.

### **The Minerals and Waste Development Framework (MWDF)**

- 1.5 The MWDF comprises a folder of local development documents, and its policies sit under the umbrella of national policies. The Core Strategy already sets out the spatial vision and the strategic objectives and policies of the new plan. It identifies the European Wildlife Sites and shows them on the Key Diagram. The Generic Development Control Policies are ones that are used when planning applications are being considered.
- 1.6 An earlier Habitats Regulations Assessment was prepared for the Core Strategy and Generic Development Control Policies. This further assessment is of the sites that are being proposed by the County Council as the ones that it considers are likely to be needed for working or for safeguarding minerals or for managing wastes over the period to 2020.
- 1.7 Because the Site Allocations Policies propose more development, they could potentially have impacts on a European Wildlife Site. Direct impacts may be more probable for mineral workings because of geology. Minerals can only be worked where they occur and the same geology can, quite literally, be one of the underlying reasons why an area is important for wildlife. Waste management developments tend to be more flexible in their siting requirements.
- 1.8 The Assessment does not include land that the Council is proposing should be identified as Areas of Search for extending quarries or as Mineral Safeguarding Areas (MSA). This is because Areas of Search are fairly broad areas where knowledge about mineral resources is less certain than in Preferred Areas.

Mineral Safeguarding Areas also do not imply that a mineral is likely to be worked, they show the extent of geological resources and these are sometimes within European Wildlife Sites. A Mineral Safeguarding Area is only an indication that the presence of the mineral should be taken into account when decisions are made about other forms of development. The guidance on identifying Mineral Safeguarding Areas is that environmental designations should not be used to define their boundaries<sup>1</sup>.

- 1.9 The Assessment involves checking for likely effects on the habitats and the species for which the site was designated. Its purpose is to ensure that the Site Allocations Policies do not, alone or in combination with other plans and projects, inadvertently promote development that would have an adverse effect on European Wildlife Sites within or near Cumbria, or conflict with policies or other measures designed to protect such sites.
- 1.10 If it is not possible to conclude that there would be no likely significant effects, then the assessment has to be taken to the next step and a more detailed Appropriate Assessment carried out. That would assess whether or not mitigation measures can be identified and required, that would:
- ensure there is no adverse effect on the integrity of the European Site, or
  - identify whether the proposal can be changed to avoid the effects, or
  - determine that the proposal is unacceptable.
- 1.11 Habitats Regulations Assessment is particularly relevant for this plan because Cumbria has so many, and such extensive, European Wildlife Sites, both within and adjacent to its boundaries. The fundamental principle of protecting European Wildlife Sites has been embedded in the MWDF from the start. Any development that would adversely affect the integrity of a European Wildlife Site, directly or indirectly, would not be in accordance with national policies nor with the adopted Core Strategy or Generic Development Control policies.
- 1.12 The main consideration for the Site Allocations Policies is that they should not cause any detriment to the habitats and species for which EWSs are designated. They should also not cause harm to habitats and species outside a designated EWS that may adversely affect its integrity, or cause a significant decline in the size, distribution, structure or function of a population of a species for which the EWS was designated. Features outside an EWS may be ones upon which species, such as birds, may depend or areas within which developments may be likely to have impacts on it, for example through impacts on water resources.

### **Potential effects**

- 1.13 Mineral workings and waste management developments have the potential to affect European Sites in a range of ways, both positive and negative:-
- causing habitat loss, fragmentation or damage, within or adjacent to the Site;
  - creating additional habitats and linkages and enhancing existing ones;

---

<sup>1</sup> British Geological Survey – “A guide to mineral safeguarding in England” October 2007 and “Mineral Safeguarding in England: good practice guide” 2011



- pollution, including water and air quality;
  - changes to hydrology/hydrogeology (e.g. dewatering, lowering water tables, increasing runoff, silting, creating additional wetland features);
  - disturbing mobile species such as bats and birds (e.g. migratory routes, flight lines, and for feeding, loafing, nesting and over wintering).
- 1.14 These effects could take place during the construction, operation or restoration phases of a development. In addition to national policies, the Core Strategy requires that these developments should aim to protect, maintain and enhance the overall quality of natural features, improve their settings, linkages and buffer zones around them, where this is appropriate, and realise the opportunities for expanding and increasing environmental resources.
- 1.15 In accordance with the policies, the typical mitigation measures that would be required by planning permissions could include:-
- adequate drainage systems and settlement ponds to avoid run-off into sensitive areas and prevent accidental discharges;
  - limits on noise levels;
  - dust and litter control schemes;
  - restrictions on lighting;
  - screening;
  - landscaping; and
  - the timing of construction and restoration works to avoid bird breeding and nesting seasons.
- 1.16 With regard to air quality, the pollutants that are most relevant to biodiversity assets are dust, oxides of nitrogen, ammonia, sulphur dioxide and low-level ozone. None of the European Wildlife Sites, that are relevant to these policies, are identified as being near the critical limits for these pollutants in the UK Air Pollution Information System.<sup>2</sup>
- 1.17 Natural England's advice is that the Assessments for Local Development Frameworks can only be concerned with locally emitted and short range, locally acting pollutants. In addition to vehicles, the potential sources of the pollutants would be dust raised by landfill and quarrying operations and the stack emissions from energy from waste plants, landfill gas powered generators or flares and mechanical and biological treatment plants.
- 1.18 Emissions from stacks are tightly controlled by the Environment Agency and dust control measures are normal requirements of planning permissions.
- 1.19 It is unlikely that grid infrastructure improvements, on a scale that would require Habitats Regulations Assessment themselves, would be needed for any of the sites put forward for energy generating facilities.
- 1.20 Examples of recent planning permissions for developments in close proximity to European Wildlife Sites are the redevelopment and extension of the Ormsgill

---

<sup>2</sup> [www.apis.ac.uk](http://www.apis.ac.uk)

Yard Household Waste Recycling Centre at Barrow in Furness and the temporary rail loading facility at Salthouse, near Millom. The mitigation measures included in the planning application proposals were regarded as satisfactory by Natural England.

- 1.21 Cumulative effects with other proposals or developments may also have impacts across a wider area than the environs of the development site itself. In accordance with the requirements of policies, these effects have been taken into account. The Cumbria District Council's are in the process of revising their development plans and some have now adopted a Local Development Framework development plan document. It has been assessed that there are no adverse cumulative impacts of proposals in their Local Development Frameworks.
- 1.22 In addition to the requirements of the European Habitats Directive, the relevant policies of the adopted Core Strategy reflect those of the Natural Environment and Rural Communities Act 2006. This places a duty on planning authorities to have regard to the purpose of conserving biodiversity. This includes restoring or enhancing a population or habitat.

## 2. THE SITE ALLOCATIONS POLICIES

- 2.1 The Site Allocations Policies derive from the adopted Core Strategy Policies, the most relevant one for this Assessment is Core Strategy Policy 4:-

### **ENVIRONMENTAL ASSETS**

Minerals and waste management developments should aim to:

- protect, maintain and enhance 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;
- improve the settings of the features;
- improve the linkages between them and buffer zones around them, where this is appropriate;
- realise the opportunities for expanding and increasing environmental resources, including adapting and mitigating for climate change.

### **Areas and features identified to be of international or national importance**

Planning application proposals within these, or that could affect them, must demonstrate that they comply with the relevant national policies as set out in Planning Policy Statements. Wherever practicable, they should also demonstrate that they would enhance the environmental assets.

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

Planning permission will not be granted for development that would have an unacceptable impact on these 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
- that it cannot reasonably be located on any alternative site that would result in less or no harm, and then,
- that the effects can be adequately mitigated, or if not,
- that the effects can be adequately and realistically compensated for through offsetting actions.

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

Guidance on implementing parts of this policy will be provided by the Landscape Character and Highway Design Guidance Documents and by the Cumbria Biodiversity Evidence Base.

- 2.2 The most directly relevant of the adopted Generic Development Control Policies is Policy DC 10:-

#### **BIODIVERSITY AND GEODIVERSITY**

Proposals for minerals and waste developments that would have impacts on locally important biodiversity and geological conservation assets, as defined in the Core Strategy, will be required to identify their likely impacts on, and also their potential to enhance, restore or add to these resources, and to functional ecological and green infrastructure networks. Enhancement measures should contribute to national, regional and local biodiversity and geodiversity objectives and targets, and to functional ecological and green infrastructure networks.

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 that 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.

- 2.3 In accordance with other adopted Core Strategy policies, and taking account of subsequent developments, at least six sites should be identified for improved or new Household Waste Recycling Centres (HWRCs), seven for waste treatment facilities, two for energy from waste plants and two million cubic metres of additional non-inert landfill capacity.
- 2.4 For minerals, the Core Strategy requires Preferred Areas and/or Areas of Search to be identified for sand and gravel, brickmaking mudstones, gypsum and high and very high specification roadstones, and safeguarding and consultation areas for other minerals, resources of secondary aggregates and potential railheads and wharves.
- 2.5 The Council has identified seven first preference sites for HWRCs, plus two as reserves; nine sites for waste treatment facilities, plus two reserves; four sites for energy from waste plants; and four sites for non-inert landfill.
- 2.6 For minerals, the Preferred Areas that have been identified are included in this Assessment. These are areas of known resources where planning permission might reasonably be anticipated, but should not be presumed. Proposals would be considered against adopted policies. Planning applications for proposed developments may still require Environmental Impact Assessment.

- 2.7 The Site Allocation Policies are set out below; assessment of the sites together with maps follow. The different types of waste management facilities and processes are described in Appendix 1.

<b>SITE ALLOCATIONS POLICY 2</b>
<b>Household Waste Recycling Centres (HWRC)</b>
<b>First Preference Sites:</b>
<b>AL17 Solway Road, Workington, to replace the HWRC at Clay Flatts, Workington</b>
<b>AL29 Auction Mart, Cockermouth</b>
<b>AL35 Risehow Industrial Estate, Flimby, if necessary to replace the HWRC at Maryport</b>
<b>CO1 Whitehaven Commercial Park, Moresby Park, to replace the HWRC at Frizington</b>
<b>CO34 Redhills, Millom, adjacent to the existing HWRC</b>
<b>ED10 Crosscroft industrial estate, Appleby</b>
<b>SL1B land adjacent to Kendal Fell Quarry, to replace the HWRC at Canal Head, Kendal</b>
<b>RESERVE SITES</b>
<b><i>AL8 Lillyhall waste treatment centre, Workington, as an alternative to AL17</i></b>
<b><i>CO11 Bridge End Industrial Estate, Egremont, if a small satellite HWRC is needed for this part of Copeland</i></b>

<b>SITE ALLOCATIONS POLICY 3</b>
<b>Waste Treatment Facilities, including Mechanical and Biological plants, Materials Recovery Facilities and Transfer and Bulking Stations</b>
<b>FIRST PREFERENCE SITES</b>
<b>AL3 Oldside, Workington</b>
<b>AL8 Lillyhall waste treatment centre, Workington</b>
<b>AL18 Port of Workington</b>
<b>AL34 part of the former Alcan complex, Lillyhall</b>
<b>CA30 Kingmoor Road recycling centre, Carlisle</b>
<b>CA31 Kingmoor Park East, Carlisle</b>
<b>CO11 Bridge End Industrial Estate, Egremont</b>
<b>ED31 Flusco waste management site, near Penrith</b>
<b>SL1A Kendal Fell Quarry, the quarry floor (<i>Note: this is mostly within the Lake District National Park and not within the area of this Development Framework</i>)</b>
<b>RESERVE SITES</b>
<b><i>CA11 Willowholme, Carlisle</i></b>
<b><i>ED1 Blencowe quarry, near Penrith</i></b>

<b>SITE ALLOCATIONS POLICY 4</b>
<b>Energy from Waste plants</b>
<b>AL3 Oldside, Workington</b>
<b>AL8 Lillyhall waste treatment centre, Workington</b>
<b>AL18 Port of Workington</b>
<b>CA31 Kingmoor Park East, Carlisle</b>

<b>SITE ALLOCATIONS POLICY 5</b>
<b>Additional non-inert landfill capacity</b>
<b>AL31 Lillyhall landfill, Workington</b>
<b>BA10 Goldmire quarry, Barrow (<i>subject to technical feasibility and access improvements</i>)</b>
<b>CA24 Hespin Wood landfill, near Carlisle</b>
<b>ED7 Thackwood clay pit</b>

<b>SITE ALLOCATIONS POLICY 6</b>
<b>Low Level Radioactive Waste</b>
<b>CO35 Low Level Waste Repository, near Drigg</b>
<b>CO36 land within Sellafield</b>

<b>SITE ALLOCATIONS POLICY 7 (part)</b>
<b>Preferred Area for Minerals</b>
<b>M18 Stamphill, Long Marton for gypsum</b>
<b>M27 Roose sand quarry, Barrow in Furness</b>

### 3. ASSESSMENTS OF THE PROPOSED SITES

#### ALLERDALE

##### AL3 Oldside, Workington and AL18 Port of Workington

- 3.1 These are first preference sites for waste treatment facilities and are also identified for Energy from Waste plants.
- 3.2 They are approximately 1.3km from the nearest boundary of the River Derwent and Bassenthwaite Lake SAC. However, the Port adjoins the lower reach of the river and AL3 is around 250 metres from it. This part of the river is downstream of the SAC boundary.
- 3.3 The potential impact of these types of development is that there could be pollution of the river during their construction or when they are operating.
- 3.4 Whilst not directly affecting the SAC, such pollution could have adverse impacts on the conservation objective of maintaining favourable habitat conditions for Atlantic Salmon, Sea and River Lamprey and Otters migrating along or using this length of river between the sea and the SAC.
- 3.5 It has been concluded that there are not likely to be significant impacts on Lamprey and Salmon when they are in the sea, just off the coast, rather than in the river. However, this conclusion is, to a degree, subjective because of the limited objective information about their life cycles.

##### *Mitigation*

- 3.6 Mitigation is expected to be required to ensure no adverse impact on the integrity of the SAC. The mitigation measures would be normal requirements of planning permissions or of Environment Agency permits for waste management facilities. They would include temporary measures during construction to prevent dirty water flowing off-site. For an operational facility, potentially contaminated water from surfaced areas would be required to drain to a foul sewer or to a storage tank. It is likely that measures would be proposed to keep clean rainwater separate from potentially contaminated water; for example, by roofing waste storage areas and appropriate parts of the developments.
- 3.7 Waste treatment facilities would be within a building, normal practice is for these to be maintained with a slight negative pressure to prevent fugitive emissions of dust. Stack emissions would be tightly controlled by the Environment Agency to maintain air quality.

##### *Appropriate assessment*

- 3.8 Development proposals on these sites must incorporate detailed measures for managing clean and potentially contaminated surface water and foul sewage. The need for contingency measures in case of accidents or extreme conditions would need to be taken into account. **With these measures in place it is considered that the integrity of the EWS would not be affected.**

### *Cumulative impacts*

- 3.9 There is a major regeneration initiative (Port Derwent) for this part of Workington. It is not yet clear what developments this is likely to involve and what impacts these could have on the European Wildlife Sites. Planning application proposals for the regeneration scheme would have to address this issue.

### **AL8 Lillyhall waste management centre and AL31 Lillyhall landfill, Workington**

- 3.10 AL8 is a first preference site for waste treatment facilities, is identified for an Energy from Waste plant, and is also a reserve site for a Household Waste Recycling Centre. AL31 is identified for additional non-inert landfill capacity.
- 3.11 The nearest European Wildlife Site is the River Marron, which is part of the River Derwent and Bassenthwaite Lake SAC, and is 2.8km from AL31 and 3.4km from AL8. The sites are not in the catchment of that river, they drain westwards towards the Distington Beck and the sewer, to treatment works at Parton.
- 3.12 **It is considered that these sites would not affect the integrity of the SAC.**

### *Cumulative impacts*

- 3.13 There is a current proposal to dispose of Very Low Level radioactive Wastes at the landfill. The County Council does not consider that would be appropriate, but has been advised that it does not require separate planning permission. The planning permission for the landfill requires that it is restored by 2014. Lillyhall is a regional strategic employment site where further developments will be encouraged. It is considered that these developments would not be likely to involve impacts on the SAC.

### **AL17 Solway Road, Workington**

- 3.14 This is a first preference site to replace the nearby Household Waste Recycling Centre at Clay Flatts.
- 3.15 The site is 2.2km away from the River Derwent and Bassenthwaite SAC and within an industrial area.
- 3.16 The normal requirements of planning permissions and of Environment Agency permits would be for potentially contaminated water to drain to a foul sewer or to a storage tank. It is likely that measures would be proposed to keep clean rainwater separate from potentially contaminated water; for example, by roofing waste storage areas and appropriate parts of the developments.
- 3.17 **It is considered that this site would not affect the integrity of the SAC.**

### *Cumulative impacts*

- 3.18 This is part of an industrial area and is near to regeneration initiatives and planning permissions that include residential and commercial developments. It is considered that these would not be likely to involve cumulative impacts on the SAC.



### **AL29 the Auction Mart, Cockermouth**

- 3.19 This is a first preference site for a Household Waste Recycling Centre.
- 3.20 It is approximately 420 metres from the River Derwent and Bassenthwaite Lake SAC.
- 3.21 The potential impact would be contaminated water draining to the river. However, the site is part of the fairly recently developed auction mart complex, with a modern drainage system, and which is on the opposite side of the A66 to the river. Applications for planning permission and Environment Agency permits would have to include details of drainage management proposals.
- 3.22 **It is considered that this site would not affect the integrity of the SAC.**

#### *Cumulative impacts*

- 3.23 No other proposed developments have been identified that would require consideration of cumulative impacts.

### **AL32 Siddick, Workington**

- 3.24 This is a coastal site, proposed to be safeguarded as a potential railhead. It is 2.4 km from the River Derwent and Bassenthwaite SAC, but natural drainage is to the sea and not to the river.
- 3.25 It has been concluded that there are not likely to be significant impacts on Lamprey and Salmon when they are in the sea, just off the coast, rather than in the river. However, this conclusion is, to a degree, subjective because of the limited objective information about their life cycles.
- 3.26 **It is considered that this site would not affect the integrity of the SAC.**

#### *Cumulative impacts*

- 3.27 No other proposed developments have been identified that would require consideration of cumulative impacts.

### **AL34 part of the former Alcan complex, Workington**

- 3.28 This is a first preference site for waste treatment facilities, which would be within a building.
- 3.29 It lies 4km from the River Derwent and Bassenthwaite Lake SAC. The site is not in the catchment of that river, it drains towards the Distington Beck and the sewer, to treatment works at Parton.
- 3.30 **It is considered that this site would not affect the integrity of the SAC.**

#### *Cumulative impacts*

- 3.31 Planning permission has been granted for a Materials Recovery Facility and Waste Transfer Station on adjacent land. The future use of the whole of the former Alcan complex is uncertain. Sites AL8 and AL31 are nearby.

### **AL35 Risehow industrial estate, Flimby**

- 3.32 This is a first preference site for a Household Waste Recycling Centre, if it is needed to replace the one at Maryport.
- 3.33 It is 3.4 km from the River Derwent and Bassenthwaite Lake SAC, but natural drainage is to the sea not the river.
- 3.34 The normal requirements of planning permissions and of Environment Agency permits would be for potentially contaminated water to drain to a foul sewer or to a storage tank. It is likely that measures would be proposed to keep clean rainwater separate from potentially contaminated water; for example, by roofing waste storage areas and appropriate parts of the developments.
- 3.35 It has been concluded that there are not likely to be significant impacts on Lamprey and Salmon when they are in the sea, just off the coast, rather than in the river. However, this conclusion is, to a degree, subjective because of the limited objective information about their life cycles.
- 3.36 **It is considered that this site would not affect the integrity of the SAC.**

#### *Cumulative impacts*

- 3.37 No other proposed developments have been identified that would require consideration of cumulative impacts.

# MAPS OF PROPOSED SITES IN ALLERDALE

**AL3 - Oldside, Workington**



**AL8 - Lillyhall Waste Management Centre, Lillyhall, Workington**



**AL17 - Solway Road, Workington**

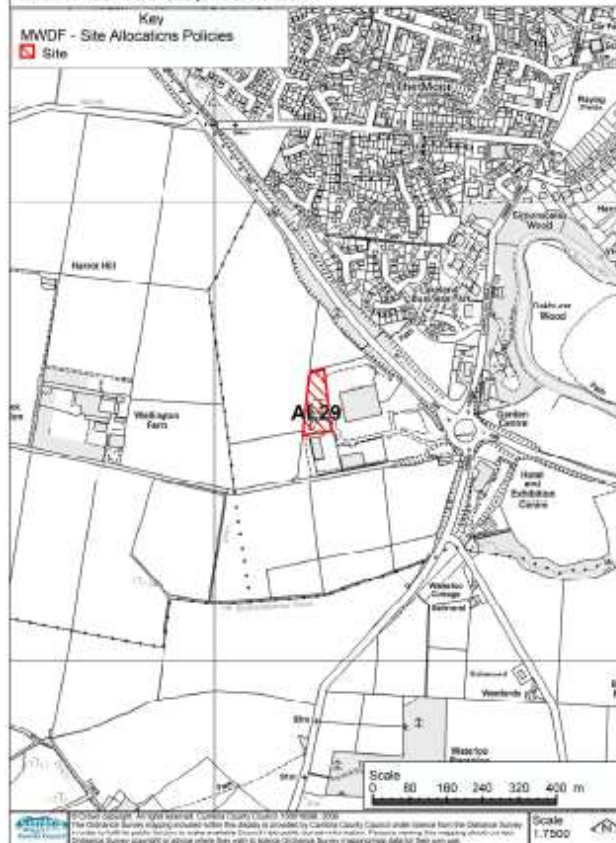


**AL18 - Port of Workington, Workington**

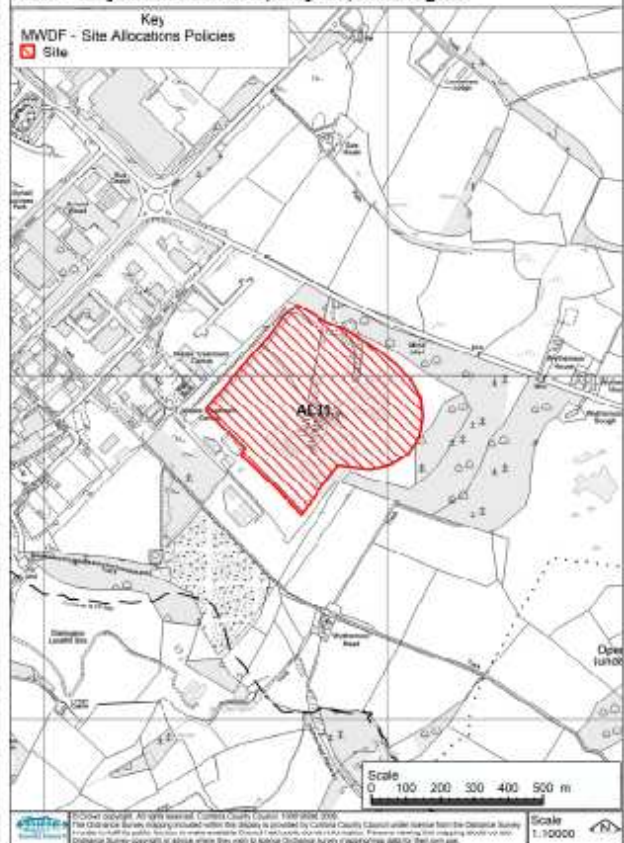




**AL29 - Auction Mart, Cockermouth**



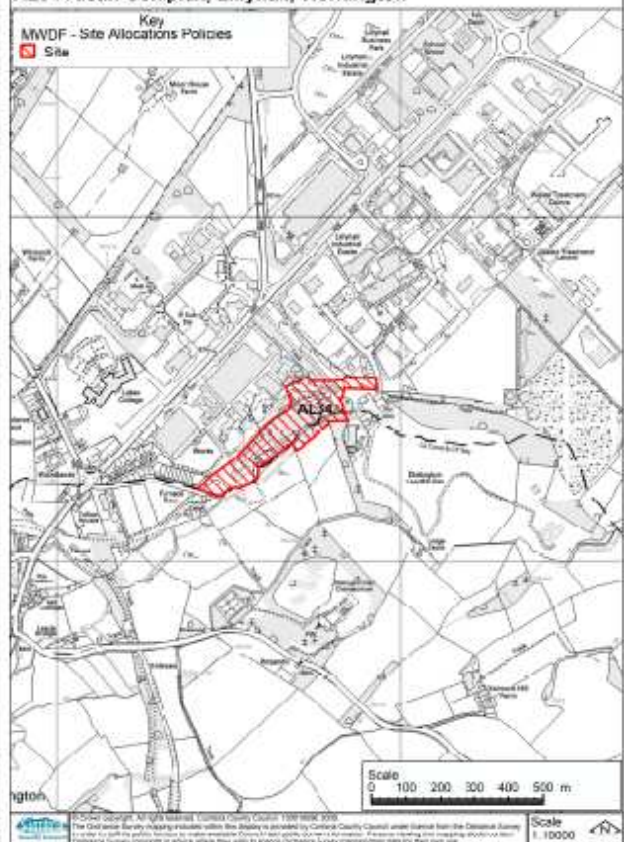
**AL31 - Lillyhall Landfill Site, Lillyhall, Workington**



**AL32 - Potential Rail Sidings at Siddick, Flimby, Maryport**

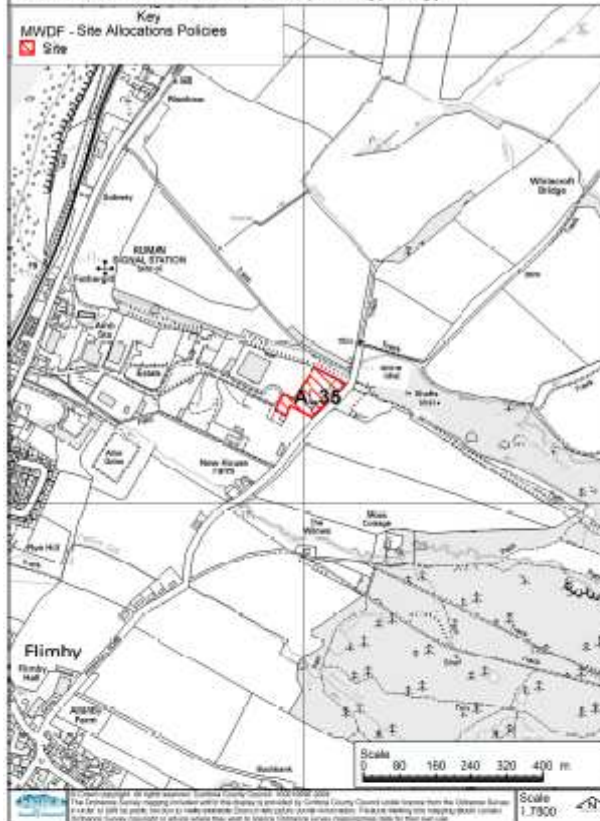


**AL34 Alcan Complex, Lillyhall, Workington**

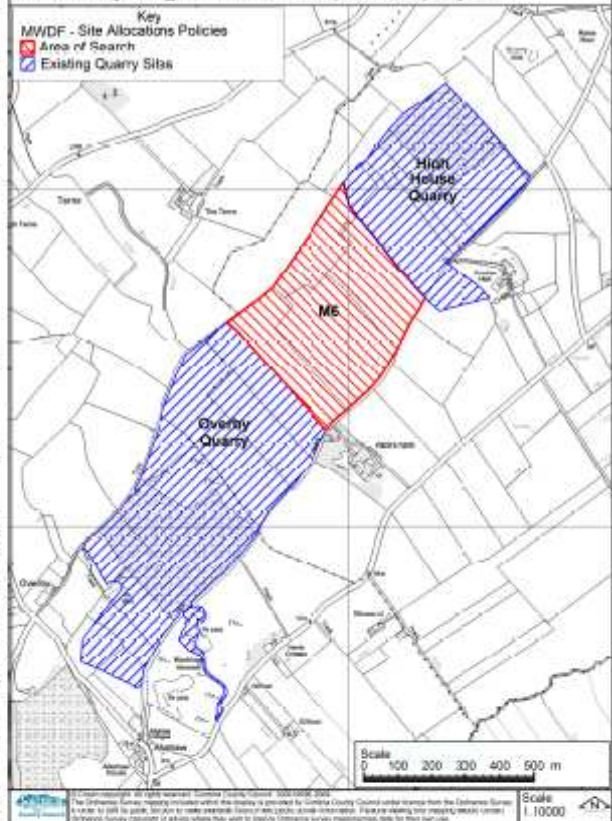




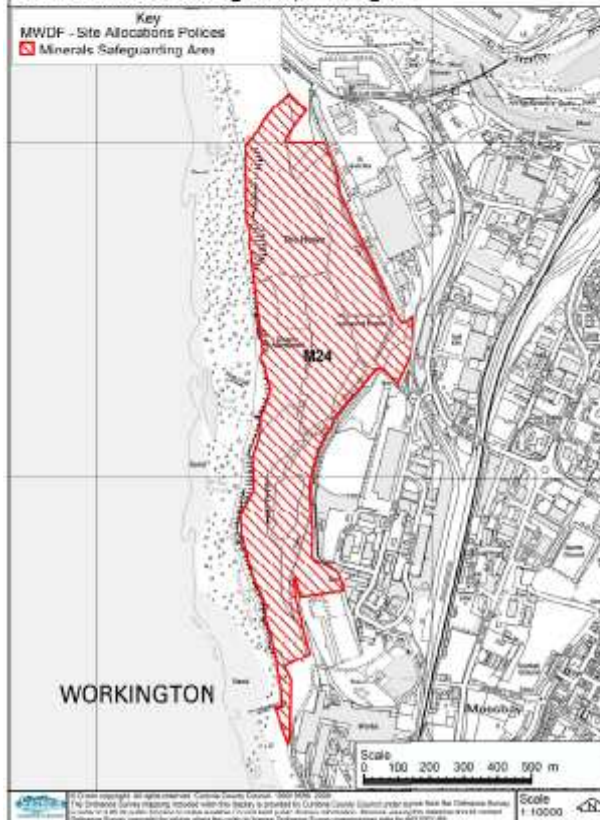
### AL35 - Risehow Industrial Estate, Flimby, Maryport



### M6 - Overby & High House Quarries, Aikshaw, Aspatria



### M24 - Derwent Howe Slag Bank, Workington



## BARROW

### **BA10 Goldmire quarry, Barrow in Furness**

- 3.38 This is identified as a site for non-inert landfill.
- 3.39 It is 2 km from Morecambe Bay SAC and Duddon Estuary SPA and Ramsar.
- 3.40 The relevant conservation objectives of the South Walney and Piel Channel Flats SSSI relate to maintaining in, or restoring to, favourable condition the habitats of coastal lagoons, shallow coastal waters and for breeding and non-breeding birds.
- 3.41 A potential impact on the objectives would be that leachate could find its way into the rivers and streams. These drain into Mill Beck and to the south where the nearest part of the Morecambe Bay SAC and SPA, Cavendish Dock, is over 5 km away.
- 3.42 Any landfill development would be required to have an impermeable lining and a leachate collection system, to ensure that leachate is contained within the site for treatment or discharge to a sewer or to the sewage treatment works. It would also be required to have bird control measures.
- 3.43 **It is considered that this site would not affect the integrity of the SAC, SPA or Ramsar.**

#### *Cumulative impacts*

- 3.44 There is continuing quarrying at this site and also operational waste management facilities. There are major regeneration initiatives at Barrow waterfront, which have already required wildlife mitigation measures. It is considered that other existing and proposed developments do not require consideration of cumulative impacts.

### **M27 Roose sand quarry, Barrow in Furness**

- 3.45 This quarry has an existing planning permission which expires in 2016; it is a Preferred Area for continued quarrying. Land and mineral ownership issues have not been able to be resolved.
- 3.46 It is 270 metres from the Morecambe Bay SAC, SPA and Ramsar. The relevant conservation objectives of the South Walney and Piel Channel Flats SSSI relate to maintaining in, or restoring to, favourable condition the habitats of coastal lagoons, shallow coastal waters and for breeding and non-breeding birds.
- 3.47 The built complex of the power station and gas terminals lie between this site and the European site. It is considered unlikely that silt laden water would flow from the quarry or that any restoration proposals for the site would have an adverse impact. There will be potential to enhance wildlife interests in a restoration scheme.
- 3.48 **It is considered that this site would not affect the integrity of the SAC, SPA or Ramsar.**

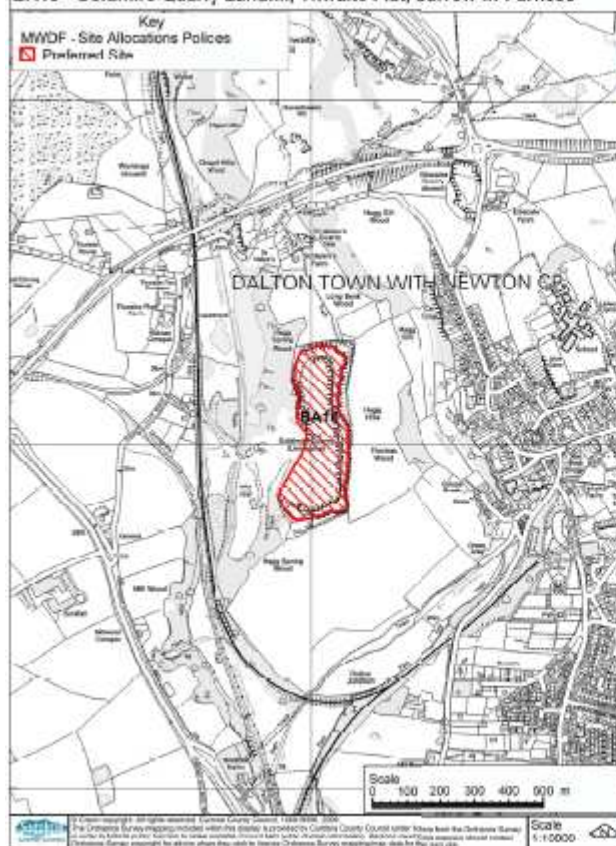
### *Cumulative impacts*

- 3.49 The only known proposal is for a new, biomass power station, which would replace the existing gas one. It seems unlikely that consideration of cumulative impacts will be required.

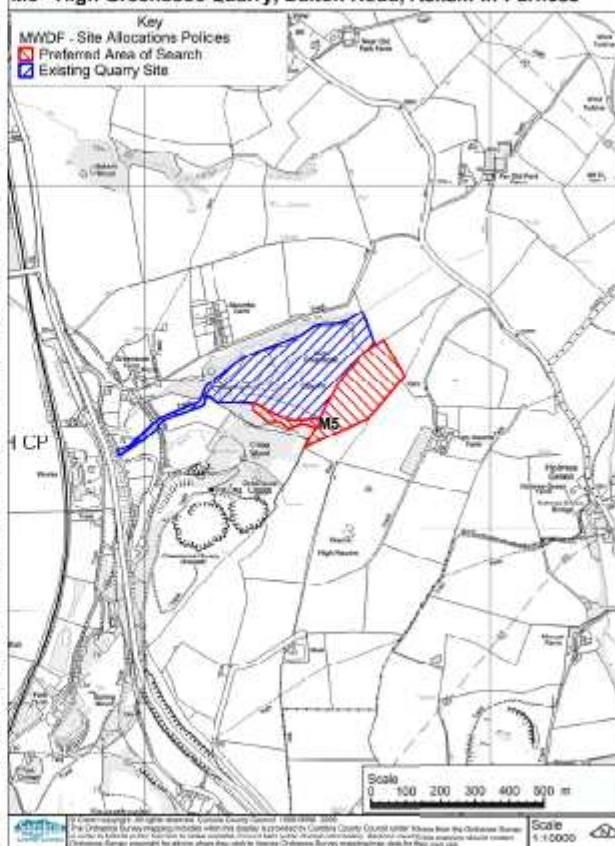


# MAPS OF PROPOSED SITES IN BARROW

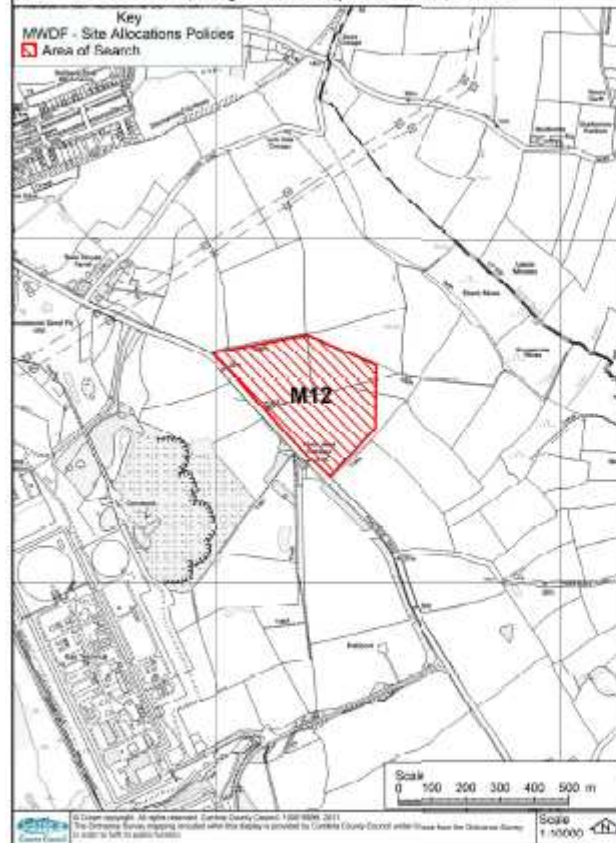
**BA10 - Goldmire Quarry Landfill, Thwaite Flat, Barrow-in-Furness**



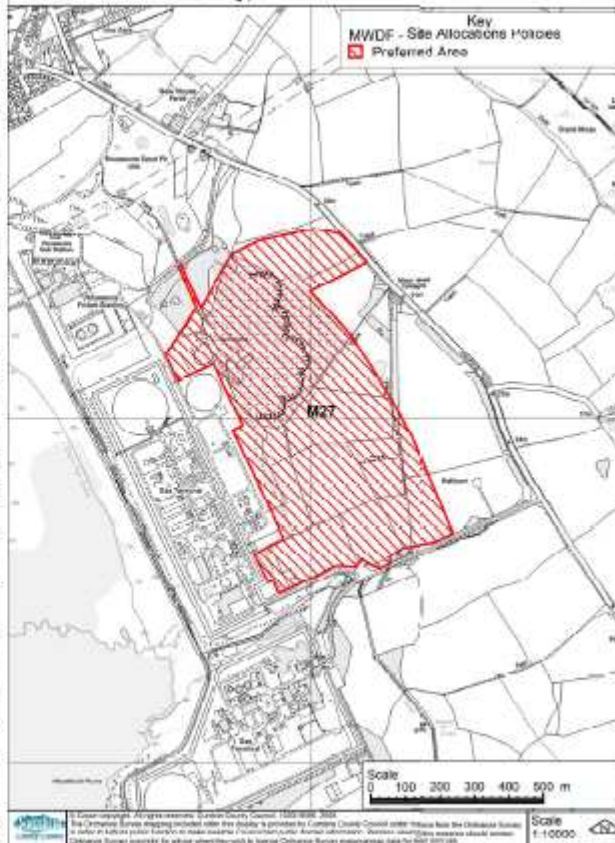
**M5 - High Greenscoe Quarry, Dalton Road, Askam-in-Furness**



**M12 - Roosecote Quarry Extension, Barrow-in-Furness**



**M27 - Roose Sand Quarry, Barrow-in-Furness**





## CARLISLE

### CA11 Willowholme industrial estate, Carlisle

- 3.50 This is a reserve list site for waste treatment facilities.
- 3.51 It is adjacent to the River Eden SAC, which has a length of approximately 410km. The relevant conservation objectives are for the River Eden and Tributaries SSSI, the boundary of which coincides with that of the SAC.
- 3.52 The potential impacts are loss of habitat, disturbance and that any pollution from the site could have adverse impacts on the conservation objective of maintaining favourable habitat conditions for Atlantic Salmon, Sea, Brook and River Lamprey, Otters, Bullhead, White-Clawed Crayfish, Schelly and invertebrates.
- 3.53 **Likely significant effect, mitigation expected to be required to ensure no adverse impact on the integrity of the SAC.**

#### *Appropriate assessment*

- 3.54 In accordance with adopted policies, development proposals for the site should maintain and enhance otter habitat and, in order to prevent contaminated water flowing into the river, would need to demonstrate appropriate measures for managing foul and surface water drainage and for containing waste materials. Planning application proposals would need to be accompanied by a flood risk assessment to demonstrate whether the details of the proposal are acceptable and compatible with its flood risk status. **With these measures in place it is considered that the integrity of the EWS would not be affected.**

#### *Cumulative impacts*

- 3.55 There are likely to be continued developments and redevelopment within this industrial estate. These seem unlikely to require consideration of cumulative impacts, other than matters that would be addressed in planning applications.

### CA24 Hespin Wood landfill, Carlisle

- 3.56 This is identified as a site for additional non-inert landfill capacity.
- 3.57 It is approximately 1.1 km from both the River Eden SAC, which has a length of approximately 410 km, and from the Upper Solway Flats and Marshes SPA and Ramsar and Solway Firth SAC. The relevant conservation objectives are for the River Eden and Tributaries SSSI, the boundary of which coincides with that of the SAC, and for the saltmarsh and inter-tidal muds and sands habitats of the Upper Solway Flats and Marshes SSSI.
- 3.58 The potential impacts are loss of habitat, disturbance and that any pollution from the site could have adverse impacts on the relevant conservation objective of maintaining favourable habitat conditions for Atlantic Salmon, Sea, Brook and River Lamprey, Otters, Bullhead, White-Clawed Crayfish, Schelly, breeding and non-breeding and wintering birds and Natterjack Toad.
- 3.59 The existing landfill already has comprehensive leachate and water management systems and litter control. It is unlikely that further landfilling would have impacts

on water quality. A likely potential impact is that gulls attracted to a landfill could affect the bird interests for which the European and Ramsar site was designated. Development proposals could result in loss of habitat for some of the other species, including otters, for which the European site was designated.

- 3.60 **Likely significant effect, mitigation expected to be required to ensure no adverse impact on the integrity of the SAC. SPA and Ramsar.**

*Appropriate assessment*

- 3.61 Habitat surveys would be needed, including ones for European protected species with protection/enhancement measures as appropriate. Pest and gull control measures in landfill management would need to demonstrate that disturbance to the birdlife interests would be minimised. Leachate and surface water management and litter control would need to be similar to existing practice at the site. **With these measures in place it is considered that the integrity of the EWS would not be affected.**

*Cumulative impacts*

- 3.62 It is not considered that there would be cumulative impacts on the European Wildlife Sites caused by the mechanical and biological treatment plant which is being built at Hespin Wood. All of its waste processes will take place inside a building operated under a slight negative pressure to prevent fugitive emissions. Exhaust air is drawn through bio-filters to maintain air quality standards.
- 3.63 There are proposals for substantial developments to the north of Carlisle to take advantage of the Northern Development Route road when it opens fully in 2012. These are at initial stages at the moment and it is not possible to assess what cumulative impacts there could be. These are likely to be matters for planning application proposals.

**CA30 Kingmoor Road, Carlisle**

- 3.64 This is a first preference site for waste treatment facilities within a building.
- 3.65 It is 670 metres from the River Eden SAC and 5 km from the Upper Solway Flats and Marshes SPA/Ramsar and Solway Firth SAC.
- 3.66 The proposal is for an extension to the existing recycling activities at the site. The site adjoins Kingmoor Sidings Nature Reserve and mitigation/compensatory measures are likely to be needed for the European protected species Great Crested Newt. However, the SAC has not been designated because of that particular wildlife interest and relevant conservation objectives would not be affected.
- 3.67 **It is considered that this site would not affect the integrity of the EWSs.**

*Cumulative impacts*

- 3.68 There are proposals for substantial developments to the north of Carlisle, to take advantage of the Northern Development Route road when it opens fully in 2012. These are at initial stages at the moment and it is not possible to assess what

cumulative impacts there could be. These are likely to be matters for planning application proposals.

### **CA31 Kingmoor Park East, Carlisle**

- 3.69 This is a first preference site for waste treatment facilities and is also identified for an Energy from Waste plant.
- 3.70 It lies 760 metres from the River Eden SAC and 3.7km from the Upper Solway Flats and Marshes SPA/Ramsar and Solway Firth SAC. The distance to the Solway EWSs is too great and there are no pathways along which contamination could travel. However, there are several springs and sinks on the proposed site, which connect to drains and flow into the River Eden SAC.
- 3.71 The potential impacts could be loss of habitat for otters and contaminated water flowing to the river during construction or when the development is operating. If that happened, it could have adverse impacts on the conservation objective of maintaining favourable habitat conditions for Atlantic Salmon, Sea, Brook and River Lamprey, Otters, Bullhead, White-Clawed Crayfish, Shelly and invertebrate assemblage.
- 3.72 **Likely significant effect, mitigation expected to be required to ensure no adverse impact on the integrity of the River Eden SAC.**

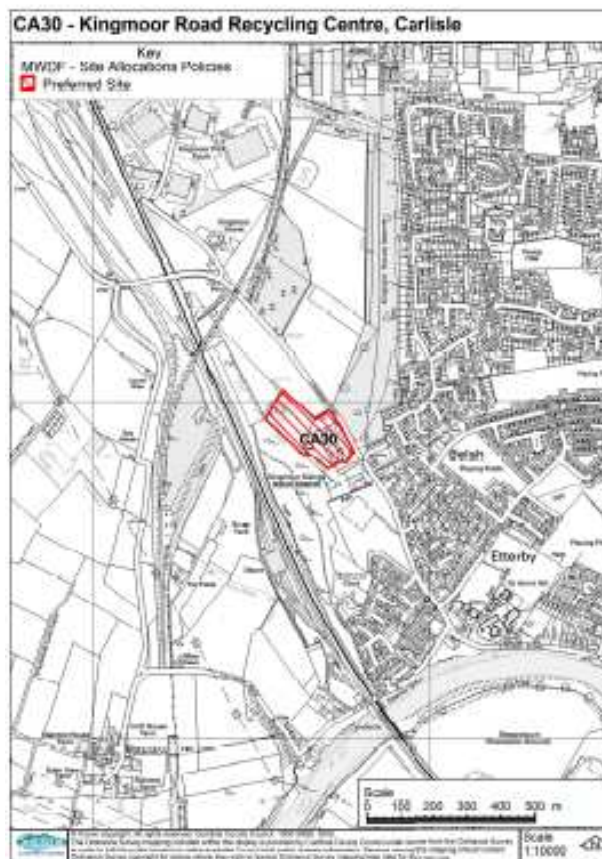
#### *Appropriate assessment*

- 3.73 Habitat surveys for otters may be needed, with protection/enhancement measures, as appropriate, and development proposals would need to demonstrate satisfactory management of foul and surface water and for containing wastes. These would be normal measures expected in applications for planning permission and Environment Agency permits. **With these measures in place it is considered that the integrity of the EWS would not be affected.**

#### *Cumulative impacts*

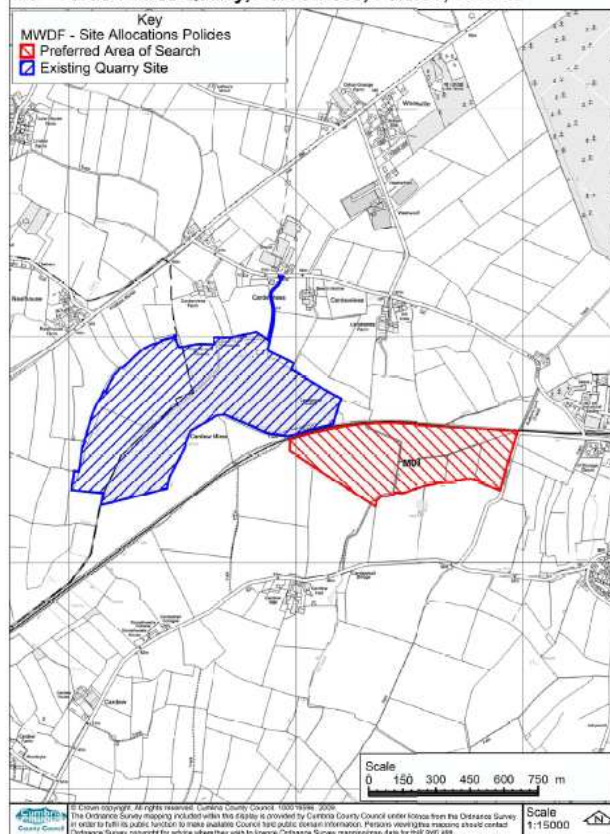
- 3.74 There are proposals for substantial developments to the north of Carlisle, to take advantage of the Northern Development Route road when it opens fully in 2012. These are at initial stages at the moment and it is not possible to assess what cumulative impacts there could be. These are likely to be matters for planning application proposals.

## MAPS OF PROPOSED SITES IN CARLISLE

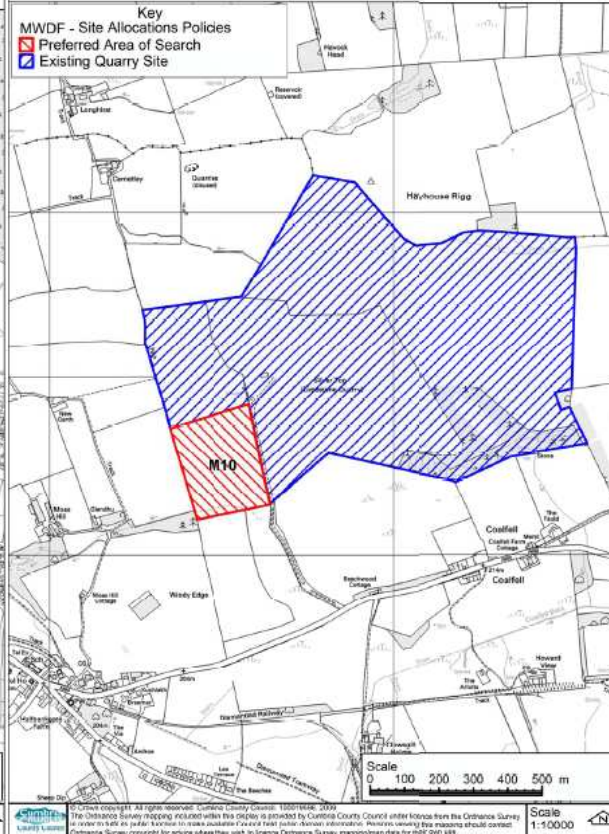




# M8 - Cardewmires Quarry, Cardewlees, Dalston, Carlisle



# M10 - Silvertop Quarry, Hallbankgate, Brampton



## COPELAND

### CO1 Whitehaven Commercial Park

- 3.75 This is a first preference site for a Household Waste Recycling Centre to replace the one at Frizington.
- 3.76 It is 4.8 km from the River Ehen SAC and 6.8 km from the River Derwent and Bassenthwaite Lake SAC.
- 3.77 The normal requirements of planning permissions and of Environment Agency permits would be for potentially contaminated water to drain to a foul sewer or to a storage tank. It is likely that measures would be proposed to keep clean rainwater separate from potentially contaminated water; for example, by roofing waste storage areas and appropriate parts of the developments.
- 3.78 **It is considered that this site would not affect the integrity of the SACs.**

#### *Cumulative impacts*

- 3.79 Most of this industrial land has remained undeveloped for a long time, but further developments are likely at some time. It is considered that they will not raise issues of cumulative impact because of their likely scale and the distances that are involved.

### CO11 Bridge End industrial estate, Egremont

- 3.80 This is a first preference site for waste treatment facilities within a building and a reserve site for a Household Waste Recycling Centre.
- 3.81 It is 2.8 km from the River Ehen SAC.
- 3.82 The site is a considerable distance down stream of the SAC. However, the conservation objectives include maintaining favourable habitat conditions, in particular for Atlantic Salmon, which would use the length of the river into which pollution from the site could flow.
- 3.83 It has been concluded that there are not likely to be significant impacts on Salmon when they are in the sea, just off the coast, rather than in the river. However, this conclusion is, to a degree, subjective because of the limited objective information about their life cycle.
- 3.84 **Likely significant effect, mitigation expected to be required to ensure no adverse impact on the integrity of the SAC**

#### *Appropriate assessment*

- 3.85 Development proposals would need to demonstrate satisfactory management of foul and surface water and for containing wastes. These would be normal measures expected in applications for planning permission and Environment Agency permits. With these measures in place it is considered that the integrity of the EWS would not be affected.

### *Cumulative impacts*

- 3.86 No other proposed developments have been identified that would require consideration of cumulative impacts.

### **CO34 Redhills, Millom**

- 3.87 This is the first preference site for an improved Household Waste Recycling Centre, on land which is close to the existing one.
- 3.88 It is 90 metres from the Morecambe Bay SAC and Duddon Estuary SPA/Ramsar, its access road runs through them. The conservation objectives are for the Duddon Estuary SSSI. It is 5.4 km from Duddon Mosses SAC.
- 3.89 The potential impacts are loss of habitat for natterjack toads, litter pollution of several types of habitat and contaminated water flowing to the estuary.
- 3.90 The normal requirements of planning permissions and of Environment Agency permits would be for potentially contaminated water to drain to a foul sewer or to a storage tank. It is likely that measures would be proposed to keep clean rainwater separate from potentially contaminated water; for example, by roofing waste storage areas and appropriate parts of the developments.
- 3.91 **Likely significant effect, mitigation expected to be required to ensure no adverse impact on the integrity of the SAC and SPA/Ramsar.**

### *Appropriate assessment*

- 3.92 This proposed site would undoubtedly secure operational improvements over the present situation. However, the development proposals would need to include natterjack toad habitat surveys. In accordance with adopted policies, appropriate habitat maintenance/protection/enhancement measures would be required. Proposals would also need to demonstrate satisfactory measures for litter control, for any wastes that may be deposited outside the site and for the management of foul and surface waters. **With these measures in place it is considered that the integrity of the EWS would not be affected.**

### *Cumulative impacts*

- 3.93 Apart from impacts of water pumped from the adjacent quarry, in order to lower the water table because of an old landfill, no other proposed developments have been identified that would require consideration of cumulative impacts.

### **CO35 Low Level Waste Repository, near Drigg**

- 3.94 This site is identified for a continued role in managing Low Level radioactive waste.
- 3.95 Part of the site adjoins the Drigg Coast SAC; the reasons for its designation are the saltmarsh and sand dune habitats, not specific species. The European protected species associated with these habitats are Great Crested Newts and Natterjack toads.

- 3.96 **Likely significant effect, mitigation expected to be required to ensure no adverse impact on the integrity of the SAC.**

*Appropriate assessment*

- 3.97 A current planning application for disposal facilities provides insufficient information to enable impacts on the EWS to be assessed. Further information has been requested. Previous proposals, that have been granted planning permission, have included mitigation measures to ensure that the integrity of the EWS would not be affected.

*Cumulative impacts*

- 3.98 Apart from the proposals for LLW management at this site, no other proposed developments have been identified that would require consideration of cumulative impacts.

**CO36 land within Sellafield**

- 3.99 This site is identified for managing Low Level Wastes from nuclear decommissioning.
- 3.100 It is 2.7 km from the Drigg Coast SAC and 8.4 km from the River Ehen SAC. However, the conservation objectives include maintaining favourable river habitat conditions, in particular for Atlantic Salmon, which would use the length of the river into which pollution from the site could flow.
- 3.101 It has been concluded that there are not likely to be significant impacts on Salmon when they are in the sea, just off the coast, rather than in the river. However, this conclusion is, to a degree, subjective because of the limited objective information about their life cycle.
- 3.102 **Likely significant effect, mitigation expected to be required to ensure no adverse impact on the integrity of the River Ehen SAC.**

*Appropriate assessment*

- 3.103 Development proposals would need to demonstrate satisfactory management of foul and surface water and for containing wastes. These would be normal measures expected in applications for planning permission and Environment Agency permits. **With these measures in place it is considered that the integrity of the EWS would not be affected.**

*Cumulative impacts*

- 3.104 There will be continuing developments within the Sellafield complex, in connection with nuclear decommissioning and the management of radioactive wastes. There are also proposals for building new nuclear power stations on adjacent and nearby land. In view of the distances involved, it is considered that such developments will not require consideration of cumulative impacts on the SACs.



### **M31 Salthouse, Millom**

- 3.105 This is a preferred site to be safeguarded as a railhead to serve Ghyll Scaur quarry.
- 3.106 It is 300 metres from the Morecambe Bay SAC and Duddon Estuary SPA/Ramsar and 3.3 km from Duddon Mosses SAC.
- 3.107 There is a recent planning permission for a temporary rail loading facility at this site. With the ecological mitigation measures that were proposed, Natural England considered the development would not affect the European Wildlife Sites.
- 3.108 **Likely significant effect, mitigation expected to be required to ensure no adverse impact on the integrity of the EWSs.**

#### *Appropriate assessment*

- 3.109 Similar mitigation measures to those adopted for the temporary facility are likely to be required. **With these measures in place it is considered that the integrity of the EWS would not be affected.**

#### *Cumulative impacts*

- 3.110 No other proposed developments have been identified that would require consideration of cumulative impacts.

## MAPS OF PROPOSED SITES IN COPELAND

**CO1 - Whitehaven Commercial Park, Whitehaven**



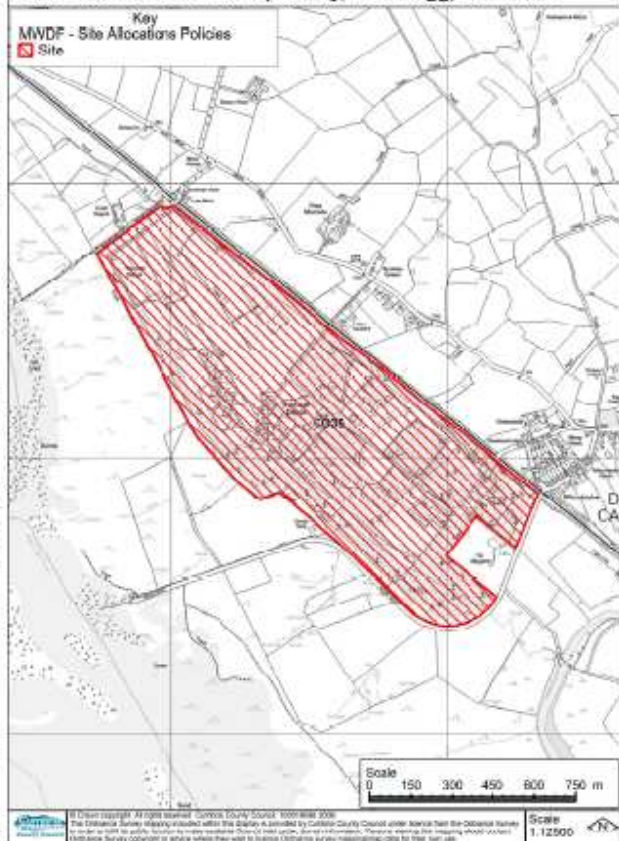
**CO11 - Bridge End Industrial Estate, Egremont**



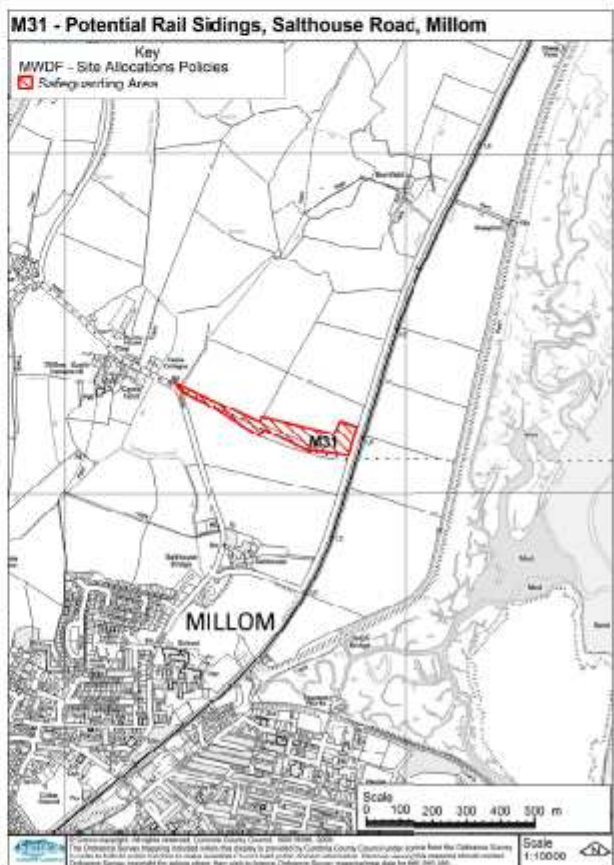
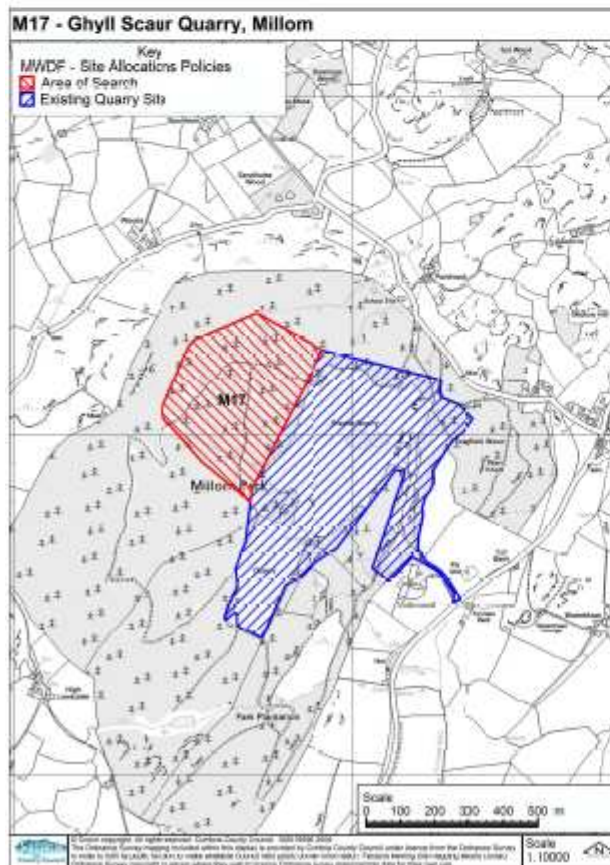
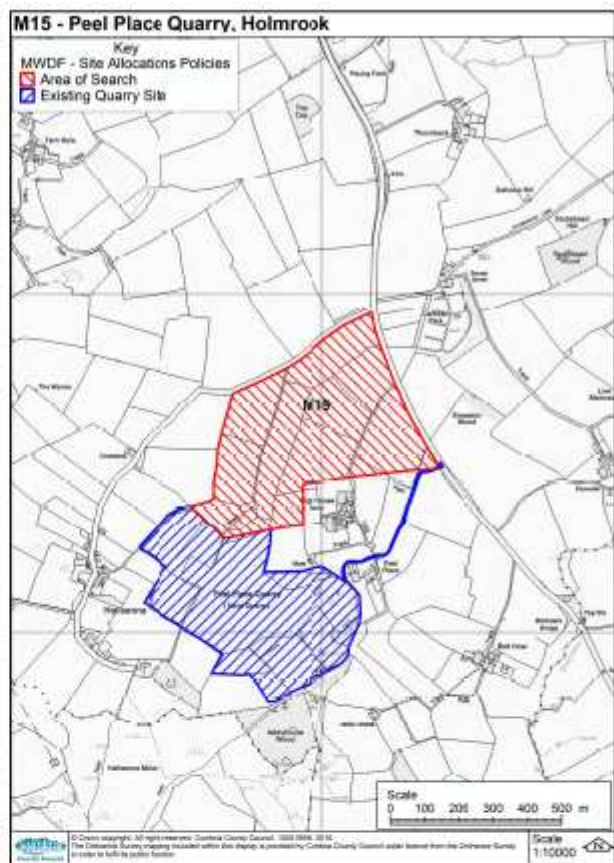
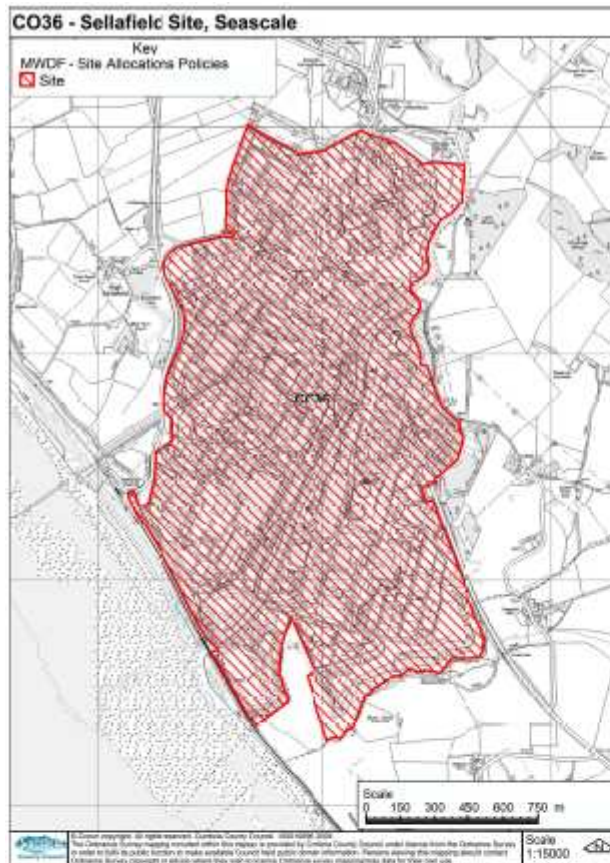
**CO34 - Redhills Quarry, Millom**



**CO35 - Low Level Waste Repository, near Drigg, Holmrook**







## EDEN

3.111 The Eden Local Development Framework has adopted its Core Strategy. Its locational strategy is to focus new development mainly in urban extensions to Penrith and at the other Key Service Centres of Alston, Appleby and Kirkby Stephen. The scale of developments is relatively modest, around 240 houses/year and 3 ha of employment land/year. Its Policy CS16 relates to the natural environment and is consistent with Cumbria's MWDF policies. The Strategy is not site specific and there are no obvious cumulative impacts that this Assessment needs to take into account.

### **ED1 Blencowe quarry, near Penrith**

3.112 This is a reserve list site for waste treatment facilities.

3.113 It is 3 km to the closest section of the River Eden SAC; however, drainage is to the north, to the River Petteril section of the SAC, which joins the River Eden at Carlisle, some 30km away. Without compensatory measures there could be loss of Great Crested Newt habitat. Species protection legislation is likely to require surveys and compensatory measures for any such loss. The European site was not designated for this interest and there would not be impacts on its conservation objectives.

**3.114 It is considered that this site would not affect the integrity of the SAC.**

#### *Cumulative impacts*

3.115 Planning permission has been granted for a caravan/lodge park in part of the quarry and further waste developments are proposed at the nearby Flusco site. It is considered that these would not require consideration of cumulative impacts.

### **ED7 Thackwood clay pit**

3.116 This site is identified for non-inert landfill.

3.117 It is 3.7 km to the closest section of the River Eden SAC. However, this area drains into the River Caldew section of the SAC, which joins the River Eden at Carlisle, some 13km away.

3.118 Any landfill development would be required to have an impermeable lining and a leachate collection system, to ensure that leachate is contained within the site for treatment or discharged to a sewer or to the sewage treatment works.

**3.119 It is considered that this site would not affect the integrity of the SAC.**

#### *Cumulative impacts*

3.120 Planning permission has been granted for clay extraction at this site, which would provide the void for the landfill. No other proposed developments have been identified that would require consideration of cumulative impacts.

### **ED10 Crosscroft industrial estate, Appleby in Westmorland**

- 3.121 This is a first preference site for a Household Waste Recycling Centre.
- 3.122 It is 850 metres from the River Eden SAC and 3.8 km from the North Pennine Moors SPA and Moor House-Upper Teesdale SAC.
- 3.123 The normal requirements of planning permissions and of Environment Agency permits would be for potentially contaminated water to drain to a foul sewer or to a storage tank. It is likely that measures would be proposed to keep clean rainwater separate from potentially contaminated water; for example, by roofing waste storage areas and appropriate parts of the developments.
- 3.124 **It is considered that this site would not affect the integrity of the SACs and SPA.**

#### *Cumulative impacts*

- 3.125 No other proposed developments have been identified that would require consideration of cumulative impacts.

### **ED31 Flusco waste management centre, near Penrith**

- 3.126 This is a first preference site for waste treatment facilities.
- 3.127 It is 2.6 km to the closest section of the River Eden SAC; however, drainage is to the north, to the River Petteril section of the SAC, which joins the River Eden at Carlisle, some 30km away.
- 3.128 This is an existing waste management complex with water management infrastructure. The normal requirements of planning permissions and of Environment Agency permits would be for potentially contaminated water to drain to a foul sewer or to a storage tank.
- 3.129 **It is considered that this site would not affect the integrity of the SAC.**

#### *Cumulative impacts*

- 3.130 The nearby Blencowe quarry has planning permission for a caravan/lodge park and is a reserve site for waste treatment facilities, but it is considered that these would not require consideration of cumulative impacts.

### **M18 Stamphill, Long Marton**

- 3.131 This is a Preferred Area for a gypsum mine to replace the Birkshead mine. This would have to be opencast working because the gypsum is too shallow to be worked by underground mining.
- 3.132 It is 480 metres from the River Eden SAC and 3.3 km from the North Pennine Moors SPA and Moor House-Upper Teesdale SAC.
- 3.133 The potential impacts would be loss of otter habitat, for example near the Keld Syke and, for Brook Lampreys, that contaminated water, pumped out of the excavations, could flow to the Trout Beck section of the River Eden SAC.

- 3.134 **Likely significant effect, mitigation expected to be required to ensure no adverse impact on the integrity of the River Eden SAC. The other SAC and the SPA are on much higher ground than the site, and their integrity could not be affected.**

*Appropriate assessment*

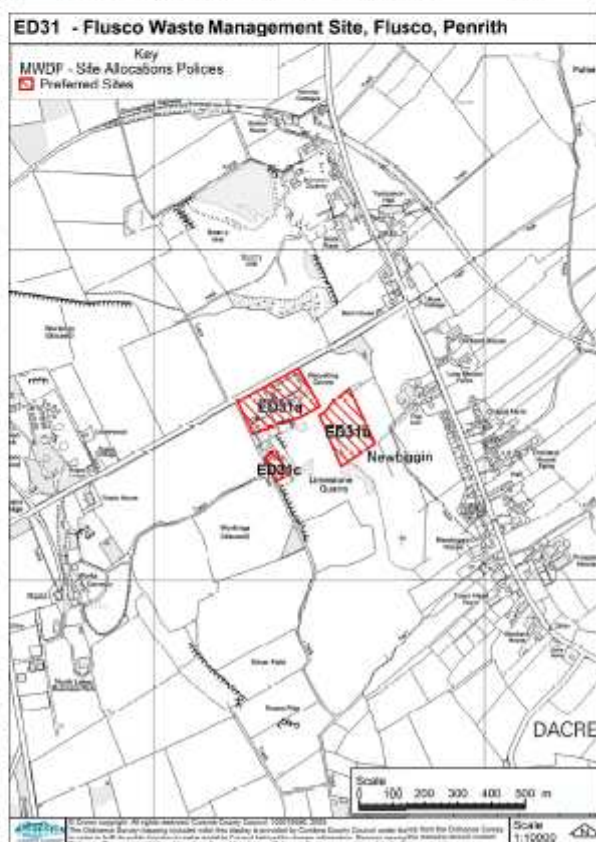
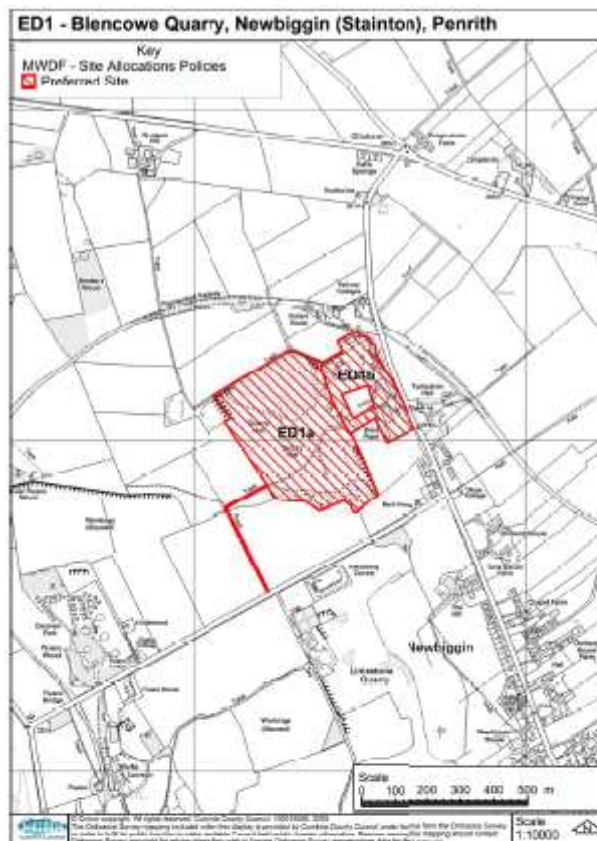
- 3.135 In accordance with adopted policies, development proposals for the site should maintain and enhance otter habitat. This may include keeping a wildlife corridor along Keld Syke, as in a previous planning permission which is no longer valid. A restoration scheme for the site, similar to the one that was previously approved would secure substantial habitat enhancement measures. A planning application would have to include detailed measures for the management of water within the site, including settlement lagoons. **With these measures in place, it is considered that the integrity of the EWS would not be adversely affected and would be enhanced in the longer term.**

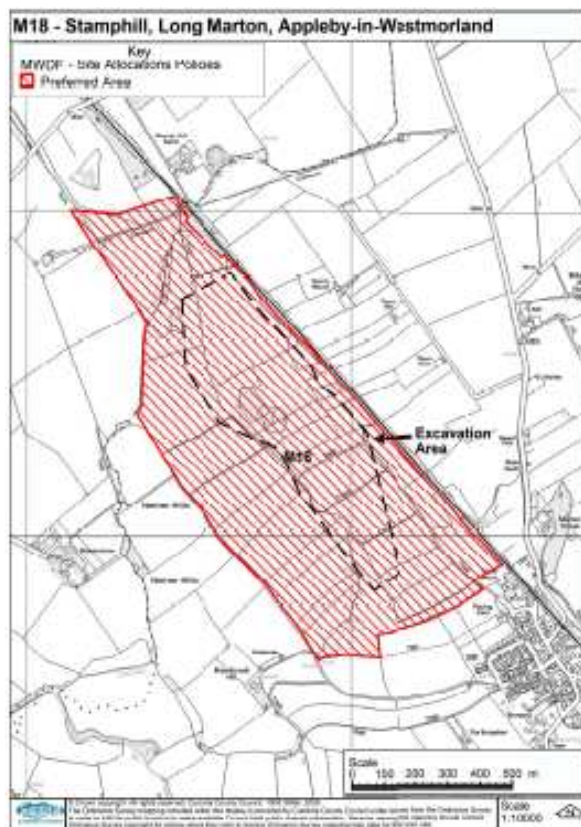
*Cumulative impacts*

- 3.136 No problems have been identified that result from the discharge of water from the nearby Birkshead underground mine. No other proposed developments have been identified that would require consideration of cumulative impacts.



## MAPS OF PROPOSED SITES IN EDEN







## **SOUTH LAKELAND**

- 3.138 The South Lakeland Local Development Framework has an adopted Core Strategy. Its locational strategy is to focus new development mainly in the Principal Service Centres of Kendal and Ulverston, at the Key Service Centres of Milnthorpe, Grange-over-Sands and Kirkby Lonsdale, followed by a number of designated Local Service Centres throughout the rural hinterland. There is a target for housing development, set at 468 houses/year, and a target of 4 hectares of employment land/year. The LDFs policies relating to the natural and historic environment are consistent with Cumbria's MWDF policies. The Core Strategy is not site specific and there are no obvious cumulative impacts that this Assessment needs to take into account.

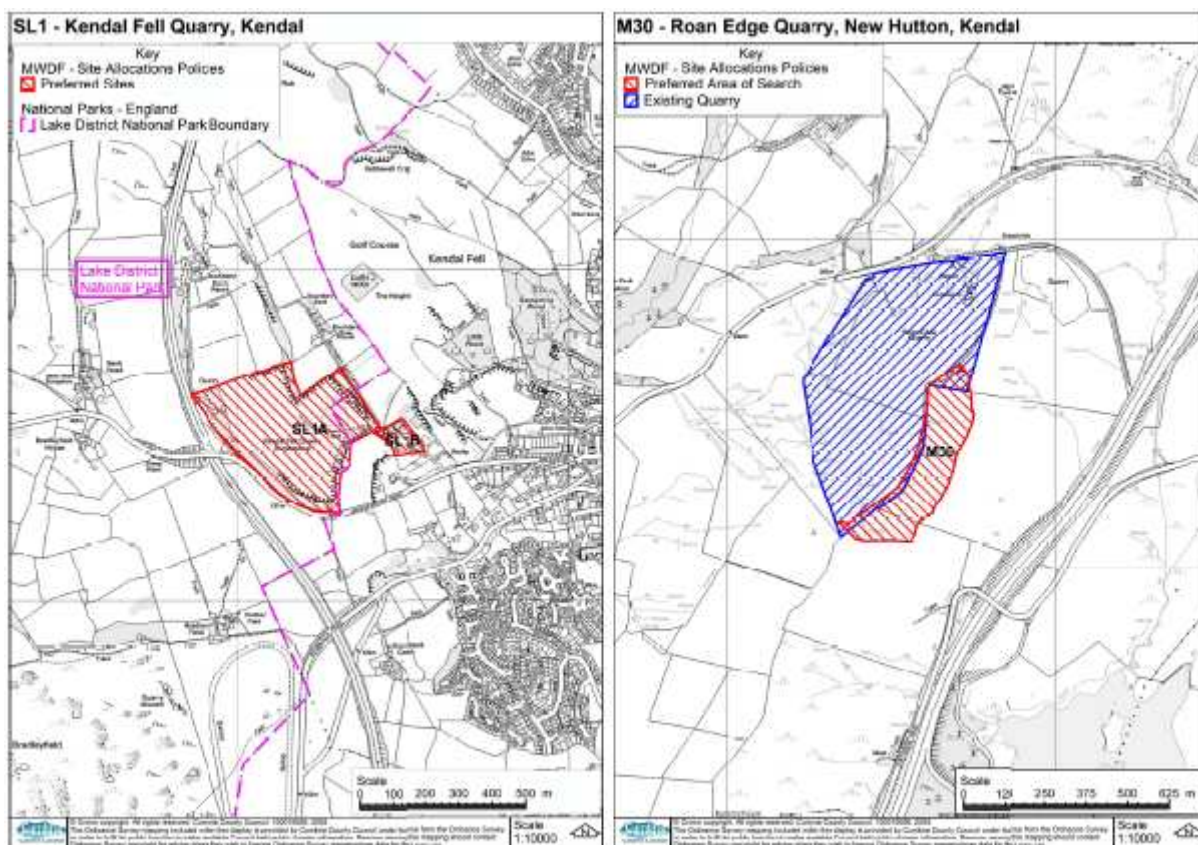
### **SL1 Kendal Fell quarry, Kendal**

- 3.139 Land adjacent to the quarry is a first preference site for a Household Waste Recycling Centre, to replace the one at Canal Head in Kendal, and the quarry floor is a first preference site for waste treatment facilities within buildings. There is already the infrastructure required for the closed landfill, waste transfer station and other developments at the site.
- 3.140 In the Lake District National Park Authority draft Land Allocations document, that part of Kendal Fell Quarry that falls within the Park, is identified for "waste management and treatment". In the South Lakeland District Council draft Land Allocations document, the land adjacent to the quarry is identified for "waste and recycling related uses".
- 3.141 The site is 530 metres from the Morecambe Bay Pavements SAC and 1km from the River Kent SAC.
- 3.142 The normal requirements of planning permissions and of Environment Agency permits would be for potentially contaminated water to drain to a foul sewer or to a storage tank. The Morecambe Bay Pavements SAC is situated on higher ground than these sites.
- 3.143 **It is considered that this site would not affect the integrity of the SACs.**

#### *Cumulative impacts*

- 3.144 Planning permissions have been granted for commercial development on adjacent land and further developments in this part of Kendal may be anticipated following the work for the South Lakeland Local Development Framework. It seems unlikely that consideration of cumulative impacts on European Wildlife Sites will be needed, because of distance and/or the nature of the wildlife interests.

## MAPS OF PROPOSED SITES IN SOUTH LAKELAND



## **APPENDIX 1**

### **TYPES OF WASTE MANAGEMENT FACILITIES**

#### **Household Waste Recycling Centres**

These are provided by the County Council in its role as the waste disposal authority. Modern ones comprise a number of covered bays where people can take bulky household items and recyclable and non-recyclable materials that are not collected by the bin lorries or kerbside collections. Sites of approximately one hectare are usually needed.

#### **Types of waste treatment facilities**

These are usually within buildings and would be likely to require sites between 2 and 3 hectares.

#### **Waste Transfer and Bulking Stations**

These are where waste is delivered for bulking up before being sent to a larger facility or where it is sorted prior to being transferred somewhere else for recycling, treatment or disposal.

#### **Materials Recovery Facility (MRF)**

This is a dedicated facility for the sorting and separation of recyclable materials. It can be expected to handle around 50,000 tonnes/year. At present these are primarily for municipal waste. However, they are likely to be needed for the much larger commercial and industrial waste streams.

#### **Mechanical and Biological Treatment (MBT)**

This is a generic term for mechanical sorting and separation used in conjunction with biological treatment processes such as composting. They dry out and reduce the bulk of the waste and separate it into recyclables such as metals and glass, an organic fraction, and sometimes biogas or a refuse derived fuel or a soil conditioner. There is also usually a reject fraction, which will require landfill disposal. The refuse derived fuel can be used in an Energy from Waste Plant or may be able to be used in an existing industrial process such as a cement kiln, but not in power stations.

MBT plants would probably have modules of around 50,000 tonnes/year. Their buildings could be 140 metres long and 30 metres wide.

#### **Anaerobic digestion**

Biodegradable waste is placed in an enclosed vessel and encouraged to break down in the absence of oxygen. The end products are a solid or liquid digestate, which may be able to be used as a soil conditioner or a bio-fertiliser, a concentrated liquor, which can be re-circulated, or may be able to be used as a fertiliser or disposed through sewage treatment works, and a methane rich biogas. This gas can be burnt to generate electricity and counts as a renewable fuel.

## **Energy from waste plants (EfW)**

These are usually within buildings on sites of between 2 and 4.5 hectares

There are several different technologies for these. They burn residual waste in controlled conditions to generate heat and/or electricity, after targeted levels of recyclables and biodegradable wastes have been removed. Ideally, these plants should be combined heat and power plants and be located near a development that would use the waste heat (normally steam), and where the electricity generated can be fed into the National Grid. They could have capacities ranging from 20,000 to 200,000 tonnes/year. Anaerobic digestion, described above, can also involve energy generation.

## **Advanced thermal treatment plants**

These incorporate advanced or emerging technologies. They include pyrolysis where organic materials are broken down by heat in the absence of oxygen. The process produces a synthetic gas or pyrolysis oil, which can be used to generate electricity. A solid char is also produced, which may need specialist disposal or additional processing.

An alternative is gasification, which operates at a higher temperature than pyrolysis and with oxygen or air and added water. It produces a synthetic gas with a higher hydrogen content than pyrolysis. A solid residue is produced which usually requires landfill disposal.

Mechanical Heat Treatment is another generic option. It can involve pre-treating waste prior to separation by heat or steam, for example in an autoclave. It can be part of the MBT process. It can produce a refuse derived fuel as well as the recyclables. There will be a residue that requires landfill disposal.

There are also other advanced thermal treatment technologies.

## **Landfill**

After the removal of recyclables and compostable materials, there is still usually a residual fraction of waste that has to be landfilled.

## **Aerobic digestion**

This is a biological process in which biodegradable wastes are decomposed by micro-organisms in the presence of air. It is usually described as composting, which can be either in open windrows or within an enclosed vessel (see below). The residue may be used as a soil conditioner or mulch or sold as a compost.

## **Open windrow composting**

This is a process in which garden wastes are piled in rows, usually in the open air but sometimes inside a building. It produces a stabilised compost, water and carbon dioxide. It cannot be used for food wastes. Sites should not be located close to sensitive properties because of odour problems.

### **In-vessel composting**

This composts garden and kitchen wastes in an enclosed vessel or tunnel. It is more controlled than open windrows and can achieve the temperatures needed to destroy bacteria to prevent health risks in accordance with the Animal By-products Regulations. These plants are much less likely than open windrows to cause odour problems, but they cannot be guaranteed not to produce odours.

Composting facilities vary in size, but can be expected to handle around 25,000 to 30,000 tonnes/year.

### **Green Resource Recovery Parks or Green Energy Parks**

There may be advantages in locating several waste management and re-use/recycling facilities on the same site. These could incorporate Energy from Waste plants, Materials Recovery Mechanical and Biological Treatment, Waste Transfer and Household Waste Recycling Centres. Sites of around 10 to 15 ha could be needed to accommodate these. At present it seems unlikely that any of these will be proposed in Cumbria.

## APPENDIX 2

### THE LOCATION OF SITES IN RELATION TO EUROPEAN WILDLIFE SITES

The distances of the sites from the European Wildlife Sites are given in the following table. Their locations and the boundaries of the European Wildlife Sites are shown on the maps at the end of this document.

#### Distances from European Wildlife Sites

Preferred Option Site	Distance	European Wildlife Site
CA11 Willowholme, Carlisle	adjacent	River Eden SAC
M18 Stamphill gypsum mine	480m	
CA30 Kingmoor Road recycling centre, Carlisle	670m	
CA31 Kingmoor Park East, Carlisle	760m	
ED10 Crosscroft Industrial Estate	850m	
CA24 Hespin Wood	1.1km	
ED31 Flusco waste management	2.6km	
ED1 Blencowe Quarry	3km	
ED7 Thackwood clay pit	3.7km	
CO35 LLWR	adjacent	Drigg Coast SAC
CO36 Sellafield	2.7km	Morecambe Bay SAC, Duddon Estuary SPA/Ramsar
CO34 Redhills Quarry, Millom	100m	
M31 rail sidings, Millom	300m	
BA10 Goldmire Quarry landfill	2km	Morecambe Bay SAC, Morecambe Bay SPA
M27 Roose Sand Quarry	270m	
CA24 Hespin Wood	1.1km	Upper Solway Flats & Marshes SPA/Ramsar, Solway Firth SAC
CA31 Kingmoor Park East, Carlisle	3.7km	
CA30 Kingmoor Road recycling centre, Carlisle	5km	
AL29 Auction Mart, Cockermouth	420m	River Derwent and Bassenthwaite Lake SAC
AL18 Port of Workington	1.2km	
AL3 Oldside, Workington	1.3km	
M24 Derwent Howe slag bank	2km	
AL17 Solway Road, Workington	2.2km	
AL32 Siddick rail sidings	2.4km	
AL31 Lillyhall landfill site	2.8km	
AL8 Lillyhall waste management centre	3.4km	
AL35 Risehow Industrial Estate	3.4km	
AL34 Alcan complex	4km	
CO1 Whitehaven Commercial Park	6.8km	
M18 Stamphill gypsum mine	3.3km	North Pennine Moors SPA, Moor House – Upper Teesdale SAC
ED10 Crosscroft Industrial Estate	3.8km	
SL1 Kendal Fell Quarry	530m	Morecambe Bay Pavements SAC
CO11 Bridge End Industrial Estate	2.8km	River Ehen SAC
CO1 Whitehaven Commercial Park	4.8km	
CO36 Sellafield	8.4km	
SL1 Kendal Fell Quarry	1km	River Kent SAC

**CUMBRIA MINERALS AND WASTE DEVELOPMENT FRAMEWORK**

**HABITATS REGULATIONS ASSESSMENT**

**REGULATION 30 SITE ALLOCATIONS POLICIES AND PROPOSALS MAP**

**THE CONSERVATION OBJECTIVES OF THE EUROPEAN WILDLIFE SITES**





## THE CONSERVATION OBJECTIVES OF THE EUROPEAN WILDLIFE SITES

### Part 1 European Sites and Features – SACs

<sup>1</sup> This is the approximate central point of the SAC - in the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC

\* Priority feature

EUROPEAN SITE	GRID REF <sup>1</sup> / AREA	REASON(S) FOR DESIGNATION	CONSERVATION OBJECTIVES	SITE ALLOCATIONS
Asby Complex SAC	NY598112 3122.23 ha	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>)</li> <li>• <i>Molinia</i> meadows on calcareous, peaty or clayey silt-laden soils (<i>Molinion caeruleae</i>)</li> <li>• Petrifying springs with tufa formation (<i>Cratoneurion</i>) *</li> <li>• Alkaline fens</li> <li>• Limestone pavements *</li> </ul> <p><u>Annex I Habitats – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>• Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.</li> <li>• European dry heaths</li> <li>• Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> *</li> </ul> <p><u>Annex II Species – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Geyer's whorl snail <i>Vertigo geyeri</i></li> <li>• Slender green feather-moss <i>Drepanocladus (Hamatocaulis) vernicosus</i></li> </ul>		None
Bolton Fell Moss SAC	NY490688 374.74 (ha)	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Active raised bogs *</li> <li>• Degraded raised bogs still capable of natural regeneration</li> </ul>		N/A – nearest site is CA24 Hespin Wood, near Carlisle, which lies 12km away.
Border Mires, Kielder – Butterburn SAC	NT684013 11851.77 ha cross border with Northumbria	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Blanket bogs *</li> <li>• Transition mires and quaking bogs</li> </ul>		None

		<u>Annex I Habitats – qualifying reasons</u> <ul style="list-style-type: none"> <li>Northern Atlantic wet heaths with <i>Erica tetralix</i></li> <li>European dry heaths</li> <li>Petrifying springs with tufa formation (<i>Cratoneurion</i>)*</li> </ul>		
Borrowdale Woodland Complex SAC	NY235129 667.83 (ha)	<u>Annex I Habitats – primary reasons</u> <ul style="list-style-type: none"> <li>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</li> </ul> <u>Annex I Habitats – qualifying reasons</u> <ul style="list-style-type: none"> <li>Siliceous rocky slopes with chasmophytic vegetation</li> <li>Bog woodland *</li> </ul>		N/A – nearest site is AL29 Auction Mart, Cockermouth, which lies 13.5km away.
Clints Quarry SAC	NY161357 12.03 (ha)	<u>Annex II Species – primary reasons</u> <ul style="list-style-type: none"> <li>Great crested newt <i>Triturus cristatus</i></li> </ul>		N/A – nearest site is AL29 Auction Mart, Cockermouth, which lies 7.6km away.
Cumbrian Marsh Fritillary Site SAC	NY400409 22.96 (ha)	<u>Annex II Species – primary reasons</u> <ul style="list-style-type: none"> <li>Marsh fritillary butterfly <i>Euphydryas</i> (<i>Eurodryas</i>, <i>Hypodryas</i>) <i>aurinia</i></li> </ul>		N/A – nearest site is ED7 Thackwood Clay Pit, which lies 6km away.
Drigg Coast SAC	SD071960 1397.44 (ha)	<u>Annex I Habitats – primary reasons</u> <ul style="list-style-type: none"> <li>Estuaries</li> <li>Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)</li> <li>Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)</li> </ul> <u>Annex I Habitats – qualifying reasons</u> <ul style="list-style-type: none"> <li>Mudflats and sandflats not covered by seawater at low tide</li> <li><i>Salicornia</i> and other annuals colonising mud and sand</li> <li>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</li> <li>Embryonic shifting dunes</li> <li>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')</li> <li>Fixed dunes with herbaceous vegetation ('grey dunes') *</li> <li>Humid dune slacks</li> </ul>	<p>In relation to <b>Drigg Coast SSSI</b> – subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>Saltmarsh</li> <li>Sand dune (vegetated shingle, fixed dune grassland, humid dune slacks, strandline, embryo and mobile dunes, dune heathland)</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>Amphibian Assemblage</li> <li>Natterjack Toad</li> <li>Wintering ringed plover</li> <li>Vascular plant assemblage</li> <li><i>Odonata</i> Assemblage</li> </ul> <p><b>SAC habitats represented</b></p> <ul style="list-style-type: none"> <li>Atlantic decalcified fixed dunes</li> <li>Atlantic salt meadows</li> <li>Dunes with creeping willow</li> <li>Embryonic shifting dunes</li> </ul>	<p>Site <b>CO35 Low Level Waste Repository</b> near Drigg is identified for the <b>management of low level radioactive waste</b>, and lies adjacent to the SAC.</p> <p>Site <b>CO36 land within Sellafield</b> is identified for the <b>management of low level radioactive waste</b>, and lies 2.7km from the SAC.</p>

			<ul style="list-style-type: none"> <li>o Estuaries</li> <li>o Fixed dunes with herbaceous vegetation</li> <li>o Humid dune slacks</li> <li>o Mudflats and sandflats not covered by seawater at low tide</li> <li>o <i>Salicornia</i> and other annuals colonising mud and sand</li> <li>o Shifting dunes along the shoreline with <i>Ammophila arenaria</i></li> </ul>	
Duddon Mosses SAC	SD223853 313.07 (ha)	<u>Annex I Habitats – primary reasons</u> <ul style="list-style-type: none"> <li>• Active raised bogs *</li> <li>• Degraded raised bogs still capable of natural regeneration</li> </ul>	<p>In relation to <b>Duddon Mosses SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>o Fen, Marsh and Swamp: Lowland raised bog</li> <li>o Fen, Marsh and Swamp: Lowland soligenous fen</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>o Invertebrate assemblage</li> </ul>	<p>Site <b>CO34 Redhills Quarry, Millom</b>, is a first preference for a <b>Household Waste Recycling Centre</b> and lies 100m from the SAC.</p> <p>Site <b>M31 Salthouse, near Millom</b>, is identified as a <b>potential railhead to be safeguarded</b> for Ghyll Scaur Quarry, and lies 300m from the SAC.</p>
Helbeck and Swindale Woods SAC	NY784164 136.38 (ha)	<u>Annex I Habitats – primary reasons</u> <ul style="list-style-type: none"> <li>• <i>Tilio-Acerion</i> forests of slopes, screes and ravines*</li> </ul>		N/A – nearest site is ED10 Crosscroft Industrial Estate, Appleby, which lies 8.5km away.
Lake District High Fells SAC	NY303318 26999.36 (ha)	<u>Annex I Habitats – primary reasons</u> <ul style="list-style-type: none"> <li>• Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelietea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i></li> <li>• Northern Atlantic wet heaths with <i>Erica tetralix</i></li> <li>• European dry heaths</li> <li>• Alpine and Boreal heaths</li> <li>• <i>Juniperus communis</i> formations on heaths or calcareous grasslands</li> <li>• Siliceous alpine and boreal grasslands</li> <li>• Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels</li> <li>• Blanket bogs *</li> <li>• Siliceous scree of the montane to snow levels (<i>Androsaoetalia alpinae</i> and <i>Galeopsietalia ladani</i>)</li> <li>• Siliceous rocky slopes with chasmophytic vegetation</li> <li>• Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in</li> </ul>		None

		<p>the British Isles</p> <p><u>Annex I Habitats – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>• Species-rich <i>Nardus</i> grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) *</li> <li>• Alkaline fens</li> <li>• Calcareous rocky slopes with chasmophytic vegetation</li> </ul> <p><u>Annex II Species – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>• Slender green feather-moss <i>Drepanocladus (Hamatocaulis) vernicosus</i></li> </ul>		
Lune Deep potential SAC	14,019 ha cross border with Lancashire	<p><u>Annex I Habitats - primary reasons</u></p> <ul style="list-style-type: none"> <li>• Reefs</li> <li>• Sandbanks which are slightly covered by seawater all the time</li> </ul>		None
Moor House – Upper Teesdale SAC	NY799358 38795.99 (ha) cross border with Durham	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.</li> <li>• Alpine and Boreal heaths</li> <li>• <i>Juniperus communis</i> formations on heaths or calcareous grasslands</li> <li>• Calaminarian grasslands of the <i>Violetalia calaminariae</i></li> <li>• Siliceous alpine and boreal grasslands</li> <li>• Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>)</li> <li>• <i>Molinia</i> meadows on calcareous, peaty or clayey silt-laden soils (<i>Molinion caeruleae</i>)</li> <li>• Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels</li> <li>• Mountain hay meadows</li> <li>• Blanket bogs *</li> <li>• Petrifying springs with tufa formation (<i>Cratoneurion</i>) *</li> <li>• Alkaline fens</li> <li>• Alpine pioneer formations of the <i>Caricion bicoloris-atrofuscae</i> *</li> <li>• Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>)</li> <li>• Calcareous and calcshist screes of the montane to alpine levels (<i>Thlaspietea rotundifolii</i>)</li> <li>• Calcareous rocky slopes with chasmophytic</li> </ul>	<p>In relation to <b>Appleby Fells SSSI</b> – subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>○ Bogs</li> <li>○ Calcareous grassland</li> <li>○ Dwarf shrub heath – upland</li> <li>○ Montane habitats (montane and boreal heaths)</li> <li>○ Fen, Marsh &amp; Swamp</li> <li>○ Upland mosaic</li> <li>○ Inland Rock (Ledge communities)</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>○ Breeding bird assemblage</li> <li>○ Vascular plant assemblage</li> <li>○ <i>Gentiana verna</i></li> <li>○ <i>Saxifraga hirculus</i></li> </ul> <p><b>Geological features (Geological Site Types)</b></p> <ul style="list-style-type: none"> <li>○ Mines and mine dumps</li> <li>○ Inland exposures</li> <li>○ Caves and Karst</li> </ul>	<p>Site <b>M18 Stamphill gypsum mine</b> is identified as a Preferred Area for <b>gypsum extraction</b> and lies 3.3km from the SAC.</p> <p>Site <b>ED10 Crosscroft Industrial Estate, Appleby</b>, is a first preference for a <b>Household Waste Recycling Centre</b> and lies 3.8km from the SAC.</p>

		<p>vegetation</p> <ul style="list-style-type: none"> <li>• Siliceous rocky slopes with chasmophytic vegetation</li> </ul> <p><u>Annex I Habitats – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>• European dry heaths</li> <li>• Limestone pavements *</li> </ul> <p><u>Annex II Species – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Round mouthed whorl snail <i>Vertigo genesii</i></li> <li>• Marsh saxifrage <i>Saxifraga hirculus</i></li> </ul>		
Morecambe Bay SAC	SD371697 61506.22 (ha) cross border with Lancashire	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Estuaries</li> <li>• Mudflats and sandflats not covered by seawater at low tide</li> <li>• Large shallow inlets and bays</li> <li>• Perennial vegetation of stony banks</li> <li>• <i>Salicornia</i> and other annuals colonising mud and sand</li> <li>• Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</li> <li>• Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')</li> <li>• Fixed dunes with herbaceous vegetation ('grey dunes') *</li> <li>• Humid dune slacks</li> </ul> <p><u>Annex I Habitats – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>• Sandbanks which are slightly covered by sea water all the time</li> <li>• Coastal lagoons *</li> <li>• Reefs</li> <li>• Embryonic shifting dunes</li> <li>• Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) *</li> <li>• Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)</li> </ul> <p><u>Annex II Species – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Great crested newt <i>Triturus cristatus</i></li> </ul>	<p>In relation to <b>Duddon Estuary SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>○ Estuary</li> <li>○ Saltmarsh</li> <li>○ Littoral sediment</li> <li>○ Inshore sublittoral sediment</li> <li>○ Littoral rock</li> <li>○ Inshore sublittoral rock</li> <li>○ Coastal vegetated shingle</li> <li>○ Sand dune (Strandline, embryo and mobile dunes, Fixed dune grassland, Humid dune slacks, Dune heath)</li> <li>○ Coastal lagoon</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>○ Aggregation of breeding sandwich tern (Annex 1 species)</li> <li>○ Breeding bird assemblage</li> <li>○ Aggregations of non-breeding birds</li> <li>○ Natterjack toad</li> <li>○ Invertebrate assemblage</li> <li>○ Vascular plant assemblage</li> </ul> <p><b>Geological features (Geological Site Types)</b></p> <ul style="list-style-type: none"> <li>○ Active process geomorphological (IA)</li> </ul>	Site <b>BA10 Goldmire Quarry</b> , Barrow, is identified for <b>non-inert landfill</b> and lies 2km from the SAC.

			<p>In relation to <b>South Walney &amp; Piel Channel Flats SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>○ Inlets and bays</li> <li>○ Littoral sediment</li> <li>○ Sublittoral sediment</li> <li>○ Littoral rock</li> <li>○ Sublittoral rock</li> <li>○ Shingle</li> <li>○ Saltmarsh</li> <li>○ Sand dune (Strandline, embryo and mobile dunes, fixed dune grassland)</li> <li>○ Coastal Lagoon</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>○ Aggregation of breeding birds (sandwich tern (Annex 1 species))</li> <li>○ Aggregations of breeding birds</li> <li>○ Aggregations of non-breeding birds</li> <li>○ Invertebrate assemblage</li> <li>○ Vascular plant assemblage</li> </ul> <p><b>Geological features (Geological Site Types)</b></p> <ul style="list-style-type: none"> <li>○ Active process - geomorphological (IA)</li> </ul>	<p>Site <b>M27 Roose Sand Quarry</b>, Barrow, is a Preferred Area for <b>sand extraction</b> and lies 270m from the SAC.</p>
Morecambe Bay Pavements SAC	SD440869 2609.69 (ha) cross border with Lancashire	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.</li> <li>• <i>Juniperus communis</i> formations on heaths or calcareous grasslands</li> <li>• Semi-natural dry grasslands and scrubland facies; on calcareous substrates (<i>Festuco-Brometalia</i>)</li> <li>• Limestone pavements *</li> <li>• <i>Tilio-Acerion</i> forests of slopes, screes and ravines*</li> <li>• <i>Taxus baccata</i> woods of the British Isles *</li> </ul> <p><u>Annex I Habitats – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>• European dry heaths</li> <li>• Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> *</li> <li>• Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</li> </ul>	<p>In relation to <b>Scout and Cunswick Scars SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>○ Broadleaved, mixed and yew woodland</li> <li>○ Calcareous grassland</li> <li>○ Marl lake</li> </ul>	<p>Site <b>SL1 Kendal Fell Quarry</b> is a first preference for a <b>Household Waste Recycling Centre</b> and also for a <b>waste treatment facility</b>, and lies 530m from the SAC.</p>

		<u>Annex II Species – primary reasons</u> <ul style="list-style-type: none"> <li>• Narrow-mouthed whorl snail <i>Vertigo angustior</i></li> </ul>		
Naddle Forest SAC	NY494144 360.89 (ha)	<u>Annex I Habitats – primary reasons</u> <ul style="list-style-type: none"> <li>• Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</li> </ul> <u>Annex I Habitats – qualifying reasons</u> <ul style="list-style-type: none"> <li>• North Atlantic wet heath with <i>Erica tetralix</i></li> <li>• European dry heaths</li> </ul>		None
North Pennine Dales Meadows SAC	NY931256 497.09 (ha) cross border with Durham; Lancashire; North Yorkshire; Northumbria	<u>Annex I Habitats – primary reasons</u> <ul style="list-style-type: none"> <li>• Mountain hay meadows</li> </ul> <u>Annex I Habitats – qualifying reasons</u> <ul style="list-style-type: none"> <li>• <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)</li> </ul>		None
North Pennine Moors SAC	SE137749 103109.42 (ha) cross border with Durham; Northumbria; North Yorkshire	<u>Annex I Habitats – primary reasons</u> <ul style="list-style-type: none"> <li>• European dry heaths</li> <li>• <i>Juniperus communis</i> formations on heaths or calcareous grasslands</li> <li>• Blanket bogs *</li> <li>• Petrifying springs with tufa formation (<i>Cratoneurion</i>)</li> <li>• Siliceous rocky slopes with chasmophytic vegetation</li> <li>• Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</li> </ul> <u>Annex I Habitats – qualifying reasons</u> <ul style="list-style-type: none"> <li>• Northern Atlantic wet heaths with <i>Erica tetralix</i></li> <li>• Calaminarian grasslands of the <i>Violetalia calaminariae</i></li> <li>• Siliceous alpine and boreal grasslands</li> <li>• Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>)</li> <li>• Alkaline fens</li> <li>• Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>)</li> <li>• Calcareous rocky slopes with chasmophytic vegetation</li> </ul> <u>Annex II Species – qualifying reasons</u> <ul style="list-style-type: none"> <li>• Marsh saxifrage <i>Saxifraga hirculus</i></li> </ul>		N/A – nearest site is ED10 Crosscroft Industrial Estate, Appleby, which lies 10.7km away.

River Derwent & Bassenthwaite Lake SAC	NY262207 1832.96 (ha)	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i></li> </ul> <p><u>Annex I Habitats – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>• Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation</li> </ul> <p><u>Annex II Species – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Marsh fritillary butterfly <i>Euphydryas</i> (<i>Eurodryas</i>, <i>Hypodryas</i>) <i>aurinia</i></li> <li>• Sea lamprey <i>Petromyzon marinus</i></li> <li>• Brook lamprey <i>Lampetra planeri</i></li> <li>• River lamprey <i>Lampetra fluviatilis</i></li> <li>• Atlantic salmon <i>Salmo salar</i></li> <li>• Otter <i>Lutra lutra</i></li> <li>• Floating Water-plantain <i>Luronium natans</i></li> </ul>	<p>In relation to <b>River Derwent and Tributaries SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>○ Rivers and Streams</li> <li>○ Standing Open Water (oligotrophic to mesotrophic)</li> <li>○ Fen, marsh and swamp</li> <li>○ Wet woodland</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>○ Floating water plantain <i>Luronium natans</i></li> <li>○ Vascular plant assemblage</li> <li>○ Atlantic salmon <i>Salmo salar</i></li> <li>○ River lamprey <i>Lampetra fluviatilis</i></li> <li>○ Brook lamprey <i>Lampetra planeri</i></li> <li>○ Sea lamprey <i>Petromyzon marinus</i></li> <li>○ Vendace <i>Coregonus albula</i></li> <li>○ Arctic charr <i>Salvelinus alpinus</i></li> <li>○ Otter <i>Lutra lutra</i></li> <li>○ Invertebrate assemblage of fast flowing water</li> <li>○ Invertebrate assemblage of mineral marsh and open water</li> <li>○ Invertebrate assemblage of litter-rich fluctuating wetlands</li> </ul>	<p>Site <b>AL29 Auction Mart, Cockermouth</b>, is a first preference for a <b>Household Waste Recycling Centre</b> and lies 420m from the SAC.</p> <p>Site <b>AL18 Port of Workington</b> is a first preference for a <b>waste treatment facility</b> and is also identified for an <b>Energy from Waste plant</b>, and lies 1.2km from the SAC.</p> <p>Site <b>AL3 Oldside, Workington</b>, is a first preference site for a <b>waste treatment facility</b> and is also identified for an <b>Energy from Waste plant</b>, and lies 1.3km from the SAC.</p> <p>Site <b>M24 Derwent Howe slag bank</b>, Workington, is a preferred <b>Mineral Safeguarding Area for secondary aggregates</b> and lies 2km from the SAC.</p> <p>Site <b>AL17 Solway Road</b>, Workington, is a first preference for a <b>Household Waste Recycling Centre</b> and lies 2.2km from the SAC.</p> <p>Site <b>AL32 Siddick, Flimby</b>, is identified as a <b>potential railhead to be safeguarded</b> if required</p>
--	--------------------------	---	---	---



				<p>in connection with mineral working or waste management proposals, and lies 2.4km from the SAC.</p> <p>Site <b>AL31 Lillyhall landfill</b> site is identified for <b>non-inert landfill</b> and lies 2.8km from the SAC.</p> <p>Site <b>AL8 Lillyhall waste management centre</b> is a first preference for a <b>waste treatment facility</b>, is identified for an <b>Energy from Waste plant</b> and is a reserve for a <b>Household Waste Recycling Centre</b>, and lies 3.4km from the SAC.</p> <p>Site <b>AL35 Risehow Industrial Estate</b> is a first preference for a <b>Household Waste Recycling Centre</b> and lies 3.4km from the SAC.</p> <p>Site <b>AL34 part of the former Alcan complex</b>, Workington, is a first preference for a <b>waste treatment facility</b> and lies 4km from the SAC.</p>
River Eden SAC	NY462237 2463.23 (ha)	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Oligotrophic to mesotrophic standing waters with vegetation of the <u><i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i></u></li> <li>• Water courses of plain to montane levels with the <u><i>Ranunculon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation</u></li> <li>• Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion</i></li> </ul>	In relation to <b>River Eden and Tributaries SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.	<p>Site <b>M18 Stamphill gypsum mine</b> is identified as a Preferred Area for <b>gypsum extraction</b> and lies 480m from the SAC.</p> <p>Site <b>CA30 Kingmoor Road recycling centre</b>,</p>

		<p><u>albae</u> *</p> <p><u>Annex II Species – primary reasons</u></p> <ul style="list-style-type: none"> <li>• White clawed (or Atlantic stream) crayfish <i>Austropotamobius pallipes</i></li> <li>• Sea lamprey <i>Petromyzon marinus</i></li> <li>• Brook Lamprey <i>Lampetra planeri</i></li> <li>• River lamprey <i>Lampetra fluviatilis</i></li> <li>• Atlantic salmon <i>Salmo salar</i></li> <li>• Bullhead <i>Cottus gobio</i></li> <li>• Otter <i>Lutra lutra</i></li> </ul>	<p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>○ Rivers and Streams</li> <li>○ Broadleaved, mixed and yew woodland (Wet woodland)</li> <li>○ Fen, marsh and swamp (Lowland wetland)</li> <li>○ Standing Open Water</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>○ Atlantic salmon <i>Salmo salar</i></li> <li>○ River lamprey <i>Lampetra fluviatilis</i></li> <li>○ Brook lamprey <i>Lampetra planeri</i></li> <li>○ Sea lamprey <i>Petromyzon marinus</i></li> <li>○ Bullhead <i>Cottus gobio</i></li> <li>○ White-Clawed crayfish <i>Austropotamobius pallipes</i></li> <li>○ Schelly <i>Coregonus lavaretus</i></li> <li>○ Otter <i>Lutra lutra</i></li> <li>○ Invertebrate Assemblage</li> <li>○ Breeding bird assemblage</li> <li>○ Sand martins (breeding)</li> </ul> <p><b>Geological features (Geological SiteTypes)</b></p> <ul style="list-style-type: none"> <li>○ Karst (IK)</li> </ul>	<p>Carlisle, is a first preference for a <b>waste treatment facility</b> and lies 670m from the SAC.</p> <p>Site <b>CA31 Kingmoor Park East</b>, Carlisle, is a first preference for a <b>waste treatment facility</b> and is also identified for an <b>Energy from Waste plant</b>, and lies 760m from the SAC.</p> <p>Site <b>ED10 Crosscroft Industrial Estate, Appleby</b>, is a first preference for a <b>Household Waste Recycling Centre</b> and lies 850m from the SAC.</p> <p>Site <b>CA24 Hespin Wood landfill</b>, near Carlisle, is identified for <b>non-inert landfill</b> and lies 1.8km from the SAC.</p> <p>Site <b>ED31 Flusco waste management</b>, near Penrith, is a first preference for a <b>waste treatment facility</b> and lies 2.6km from the SAC.</p> <p>Site <b>CA11 Willowholme</b>, Carlisle, is a reserve for a <b>waste treatment facility</b> and lies adjacent to the SAC.</p> <p>Site <b>ED1 Blencowe Quarry</b>, near Penrith, is a reserve for a <b>waste</b></p>
--	--	---	---	---

				<p>treatment facility and lies 3km from the SAC.</p> <p>Site <b>ED7 Thackwood Clay Pit</b>, is identified for <b>non-inert landfill</b> and lies 3.7km from the SAC.</p>
River Ehen SAC	NY031144 24.39 (ha)	<p><u>Annex II Species – primary reasons</u></p> <ul style="list-style-type: none"> <li>Freshwater pearl mussel <i>Margaritifera margaritifera</i></li> </ul> <p><u>Annex II Species – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>Atlantic salmon <i>Salmo salar</i></li> </ul>	<p>In relation to <b>River Ehen (Ennerdale Water to Keekle Confluence) SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>Rivers and streams (supporting fresh water pearl mussel)</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>Fresh water pearl mussel <i>Margaritifera margaritifera</i></li> </ul> <p><b>SAC Species represented</b></p> <ul style="list-style-type: none"> <li>Atlantic Salmon <i>Salmo salar</i></li> </ul>	<p>Site <b>CO11 Bridge End Industrial Estate</b>, Egremont, is a first preference for a <b>waste treatment facility</b> and also a reserve for a <b>Household Waste Recycling Centre</b>, and lies 2.8km from the SAC.</p> <p>Site <b>CO1 Whitehaven Commercial Park</b> is a first preference for a <b>Household Waste Recycling Centre</b>, and lies 4.8km from the SAC.</p>
River Kent SAC	SD508953 109.12 (ha)	<p><u>Annex I Habitats – qualifying reasons</u></p> <ul style="list-style-type: none"> <li><u>Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation</u></li> </ul> <p><u>Annex II Species – primary reasons</u></p> <ul style="list-style-type: none"> <li>White clawed (or Atlantic stream) crayfish <i>Austropotamobius pallipes</i></li> </ul> <p><u>Annex II Species – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>Freshwater pearl mussel <i>Margaritifera margaritifera</i></li> <li>Bullhead <i>Cottus gobio</i></li> </ul>	<p>In relation to <b>River Kent and Tributaries SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>Rivers and Streams</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>White Clawed Crayfish <i>Austropotamobius pallipes</i></li> <li>Fresh water pearl mussel <i>Margaritifera margaritifera</i></li> <li>Bullhead <i>Cottus gobio</i></li> </ul>	<p>Site <b>SL1 Kendal Fell Quarry</b> is a first preference for a <b>Household Waste Recycling Centre</b> and also for a <b>waste treatment facility</b>, and lies 1km from the SAC.</p>
Roudsea Wood and Mosses SAC	SD347807 470.45 (ha)	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>Active raised bogs *</li> <li>Degraded raised bogs still capable of natural regeneration</li> <li><i>Tilio-Acerion</i> forests of slopes, screes and ravines</li> <li><i>Taxus baccata</i> woods of the British isles</li> </ul>		<p>N/A – nearest site is BA10 Goldmire Quarry landfill, which lies 13km away.</p>

Solway Firth SAC	NY144648 43636.72 (ha) cross border with Dumfries and Galloway	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Sandbanks which are slightly covered by seawater all the time</li> <li>• Estuaries</li> <li>• Mudflats and sandflats not covered by seawater at low tide</li> <li>• <i>Salicornia</i> and other annuals colonising mud and sand</li> <li>• Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</li> </ul> <p><u>Annex I Habitats – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>• Reefs</li> <li>• Perennial vegetation of stony banks</li> <li>• Fixed dunes with herbaceous vegetation ('grey dunes') *</li> </ul> <p><u>Annex II Species – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Sea lamprey <i>Petromyzon marinus</i></li> <li>• River lamprey <i>Lampetra fluviatilis</i></li> </ul>	<p>In relation to <b>Upper Solway Flats &amp; Marshes SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>○ Estuaries</li> <li>○ Inshore sublittoral sediment</li> <li>○ Intertidal mudflats and sandflats</li> <li>○ Reefs</li> <li>○ Saltmarsh including pioneer saltmarsh</li> <li>○ Dune grassland</li> <li>○ Coastal shingle vegetation</li> <li>○ Maritime cliff woodland (in Scotland only)</li> </ul> <p><b>Geological features (Geological Site Types)</b></p> <ul style="list-style-type: none"> <li>○ Active process geomorphological (IA)</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>○ Aggregations of breeding birds</li> <li>○ Aggregations of non-breeding birds</li> <li>○ Assemblage of non-breeding birds</li> <li>○ Breeding bird assemblage</li> <li>○ Natterjack Toad</li> <li>○ Great crested newt</li> <li>○ Vascular Plant assemblage</li> <li>○ Invertebrate assemblage</li> </ul>	<p>Site <b>CA24 Hespian Wood landfill</b>, near Carlisle, is identified for <b>non-inert landfill</b>, and lies 740m from the SAC.</p> <p>Site <b>CA31 Kingmoor Park East</b>, Carlisle, is a first preference for a <b>waste treatment facility</b> and is also identified for an <b>Energy from Waste plant</b>, and lies 3.7km from the SAC.</p> <p>Site <b>CA30 Kingmoor Road recycling centre</b>, Carlisle, is a first preference for a <b>waste treatment facility</b> and lies 5km from the SAC.</p>
South Solway Mosses SAC	NY203597 1962.36 (ha)	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Active raised bogs *</li> </ul> <p><u>Annex I Habitats – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>• Degraded raised bogs still capable of natural regeneration</li> </ul>		None
Subberthwaite, Blawith & Torver Low Commons SAC	SD269896 1865.17 (ha)	<p><u>Annex I Habitats – primary reasons</u></p> <ul style="list-style-type: none"> <li>• Transition mires and quaking bogs</li> </ul> <p><u>Annex I Habitats – qualifying reasons</u></p> <ul style="list-style-type: none"> <li>• Depressions on peat substrates of the <i>Rhynchosporion</i></li> </ul>		N/A – nearest site is M31 Salthouse, near Millom, which lies 8.5km away.

Tarn Moss SAC	NY400274 17.03 (ha)	<u>Annex I Habitats – primary reasons</u> • Transition mires and quaking bogs		N/A – nearest site is ED31 Flusco waste management, which lies 6km away.
Tyne & Nent SAC	NY715448 36.84 (ha)	<u>Annex I Habitats – primary reasons</u> • Calaminarian grasslands of the <i>Violetalia calaminariae</i>		N/A – nearest site is M18 Stamphill gypsum mine, which lies 18.5km away.
Ullswater Oakwoods SAC	NY400128 123.41 (ha)	<u>Annex I Habitats – primary reasons</u> • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles		N/A – nearest site is ED31 Flusco waste management, which lies 9km away.
Walton Moss SAC	NY504665 285.89 (ha)	<u>Annex I Habitats – primary reasons</u> • Active raised bogs * • Degraded raised bogs still capable of natural regeneration		None
Wastwater SAC	NY164062 286.21 (ha)	<u>Annex I Habitats – primary reasons</u> • Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>		N/A – nearest site is CO35 Low Level Waste Repository, near Drigg, which lies 10km away.
Witherslack Mosses SAC	SD457826 486.53 (ha)	<u>Annex I Habitats – primary reasons</u> • Active raised bogs * • Degraded raised bogs still capable of natural regeneration		N/A – nearest site is SL1 Kendal Fell Quarry, which lies 8.5km away.
Yewbarrow Woods SAC	SD347872 112.89 (ha)	<u>Annex I Habitats – primary reasons</u> • <i>Taxus baccata</i> woods of the British Isles *  <u>Annex I Habitats – qualifying reasons</u> • <i>Juniperus communis</i> formations on heaths or calcareous grasslands • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles		N/A – nearest site is SL1 Kendal Fell Quarry, which lies 15km away.



## Part 2 – European Sites and Features – SPAs

SITE	LOCATION/ AREA	REASON(S) FOR DESIGNATION	CONSERVATION OBJECTIVES	SITE ALLOCATIONS
Duddon Estuary SPA	03 15 24 W 54 10 39 N 6806.3 (ha)	<u>Annex I Species</u> <ul style="list-style-type: none"> <li>sandwich tern <i>Sterna sandvicensis</i> (during the breeding season, supports 1.5% of the GB population - Article 4.1)</li> <li>pintail <i>Anas acuta</i> (over winter, supports 2.7% of the population - Article 4.2)</li> <li>knot <i>Calidris canuta</i> (over winter, supports 1.3% of the population - Article 4.2)</li> <li>redshank <i>Tringa totanus</i> (over winter, supports 0.9% of the population - Article 4.2)</li> <li>over winter, the area regularly supports an internationally important assemblage of 31,505 individual water fowl - Article 4.2</li> </ul>	<p>In relation to <b>Duddon Estuary SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>Estuary</li> <li>Saltmarsh</li> <li>Littoral sediment</li> <li>Inshore sublittoral sediment</li> <li>Littoral rock</li> <li>Inshore sublittoral rock</li> <li>Coastal vegetated shingle</li> <li>Sand dune (Strandline, embryo and mobile dunes, Fixed dune grassland, Humid dune slacks, Dune heath)</li> <li>Coastal lagoon</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>Aggregation of breeding sandwich tern (Annex 1 species)</li> <li>Breeding bird assemblage</li> <li>Aggregations of non-breeding birds</li> <li>Natterjack toad</li> <li>Invertebrate assemblage</li> <li>Vascular plant assemblage</li> </ul> <p><b>Geological features (Geological Site Types)</b></p> <p>Active process geomorphological (IA)</p>	<p>Site <b>CO34 Redhills Quarry, Millom</b>, is a first preference for a <b>Household Waste Recycling Centre</b> and lies 100m from the SPA.</p> <p>Site <b>M31 Salhouse, near Millom</b>, is identified as a <b>potential railhead to be safeguarded</b> for Ghyll Scaur Quarry, and lies 300m from the SPA.</p> <p>Site <b>BA10 Goldmire Quarry, Barrow</b>, is identified for <b>non-inert landfill</b> and lies 2km from the SPA.</p>
Leighton Moss SPA	02 47 31 W 54 10 03 N 128.61 (ha)	<u>Annex I Species</u> <ul style="list-style-type: none"> <li>bittern <i>Botaurus stellaris</i> (during the breeding season, supports 20% of the GB population - Article 4.1)</li> <li>marsh harrier <i>Circus aeruginosus</i> (during the breeding season, supports 1.3% of the GB population - Article 4.1)</li> </ul>		N/A – nearest site is SL1 Kendal Fell Quarry, which lies 16.5km away.
Liverpool Bay SPA	03 13 16 W 53 36 30 N 197504.24 ha	<u>Annex I Species</u> <ul style="list-style-type: none"> <li>red-throated diver <i>Gavia stellata</i> (over winter, supports 28.7% of the GB population)</li> <li>common scoter <i>Melanitta nigra</i> (over winter, supports</li> </ul>		None

SITE	LOCATION/ AREA	REASON(S) FOR DESIGNATION	CONSERVATION OBJECTIVES	SITE ALLOCATIONS
		3.3% of the GB population)		
Morecambe Bay SPA	02 57 21 W 54 07 19 N 37404.6 (ha)	<p><u>Annex I Species</u></p> <ul style="list-style-type: none"> <li>• sandwich tern <i>Sterna sandvicensis</i> (during the breeding season, supports 3% of the GB population - Article 4.1)</li> <li>• pink-footed goose <i>Anser brachyrhynchus</i> (over winter, supports 1.1% of the world population - Article 4.2)</li> <li>• pintail <i>Anas acuta</i> (over winter, supports 4.7% of the NW European population - Article 4.2)</li> <li>• shelduck <i>Tadorna tadorna</i> (over winter, supports 2.1% of the NW European population - Article 4.2)</li> <li>• knot <i>Calidris canutus</i> (over winter, supports 8.5% of the East Atlantic Flyway population - Article 4.2)</li> <li>• oystercatcher <i>Haematopus ostralegus</i> (over winter, supports 5.4% of the East Atlantic Flyway population - Article 4.2)</li> <li>• curlew <i>Numenius arquata</i> (over winter, supports 3.9% of the East Atlantic Flyway population - Article 4.2)</li> <li>• dunlin <i>Calidris alpina</i> (over winter, supports 3.8% of the East Atlantic Flyway population - Article 4.2)</li> <li>• redshank <i>Tringa totanus</i> (over winter, supports 3.6% of the East Atlantic Flyway population - Article 4.2)</li> <li>• bar tailed godwit <i>Limosa lapponica</i> (over winter, supports 2.6% of the East Atlantic Flyway population - Article 4.2)</li> <li>• turnstone <i>Arenaria interpres</i> (over winter, supports 2.4% of the East Atlantic Flyway population - Article 4.2)</li> <li>• grey plover <i>Pluvialis squatarola</i> (over winter, supports 1.1% of the East Atlantic Flyway population - Article 4.2)</li> <li>• ringed plover <i>Charadrius hiaticula</i> (on passage, supports 1.5% of the international population – Article 4.2)</li> <li>• during the breeding season, the area regularly supports an internationally important assemblage of 61,858 individual seabirds – Article 4.2</li> <li>• over winter, the area regularly supports an internationally important assemblage of 210,668 individual water fowl - Article 4.2</li> </ul>	<p>In relation to <b>South Walney &amp; Piel Channel Flats SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>○ Inlets and bays</li> <li>○ Littoral sediment</li> <li>○ Sublittoral sediment</li> <li>○ Littoral rock</li> <li>○ Sublittoral rock</li> <li>○ Shingle</li> <li>○ Saltmarsh</li> <li>○ Sand dune (Strandline, embryo and mobile dunes, fixed dune grassland)</li> <li>○ Coastal Lagoon</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>○ Aggregation of breeding birds (sandwich tern (Annex 1 species))</li> <li>○ Aggregations of breeding birds</li> <li>○ Aggregations of non-breeding birds</li> <li>○ Invertebrate assemblage</li> <li>○ Vascular plant assemblage</li> </ul> <p><b>Geological features (Geological Site Types)</b></p> <p>Active process - geomorphological (IA)</p>	Site <b>M27 Roose Sand Quarry</b> , Barrow, is identified as a Preferred Area for <b>sand extraction</b> and lies 270m from the SPA.

SITE	LOCATION/ AREA	REASON(S) FOR DESIGNATION	CONSERVATION OBJECTIVES	SITE ALLOCATIONS
North Pennine Moors SPA	02 14 49 W 54 39 24 N 147246.41 (ha) cross border with Durham, North Yorks, Northumbria	<u>Annex I Species</u> merlin <i>Falco columbarius</i> (during the breeding season, supports 10.5% of the GB population - Article 4.1) golden plover <i>Pluvialis apricaria</i> (during the breeding season, supports 6.2% of the GB population - Article 4.1) hen harrier <i>Circus cyaneus</i> (during the breeding season, supports 2.2% of the GB population - Article 4.1) peregrine <i>Falco peregrinus</i> (during the breeding season, supports 1.3% of the GB population - Article 4.1)	In relation to <b>Appleby Fells SSSI</b> – subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.  <b>Habitat Types represented (Biodiversity Action Plan categories)</b> <ul style="list-style-type: none"> <li>o Bogs</li> <li>o Calcareous grassland</li> <li>o Dwarf shrub heath – upland</li> <li>o Montane habitats (montane and boreal heaths)</li> <li>o Fen, Marsh &amp; Swamp</li> <li>o Upland mosaic</li> <li>o Inland Rock (Ledge communities)</li> </ul> <b>Species represented</b> <ul style="list-style-type: none"> <li>o Breeding bird assemblage</li> <li>o Vascular plant assemblage</li> <li>o <i>Gentiana verna</i></li> <li>o <i>Saxifraga hirculus</i></li> </ul> <b>Geological features (Geological Site Types)</b> <ul style="list-style-type: none"> <li>o Mines and mine dumps</li> <li>o Inland exposures</li> <li>o Caves and Karst</li> </ul>	Site <b>M18 Stamphill gypsum mine</b> is identified as a Preferred Area for <b>gypsum extraction</b> and lies 3.3km from the SPA.  Site <b>ED10 Crosscroft Industrial Estate</b> , Appleby, is a first preference for a <b>Household Waste Recycling Centre</b> and lies 3.8km from the SPA.
Upper Solway Flats & Marshes SPA	03 25 27 W 54 54 20 N 43636.73 (ha) cross border with Dumfries & Galloway	<u>Annex I Species</u> <ul style="list-style-type: none"> <li>• barnacle goose <i>Branta leucopsis</i> (over winter, supports 12.2% of the GB population – Article 4.1)</li> <li>• bar-tailed godwit <i>Limosa lapponica</i> (over winter, supports 4.5% of the GB population – Article 4.1)</li> <li>• golden plover <i>Pluvialis apricaria</i> (over winter, supports 2.4% of the GB population – Article 4.1)</li> <li>• whooper swan <i>Cygnus cygnus</i> (over winter, supports 2.1% of the GB population – Article 4.1)</li> <li>• pink-footed goose <i>Anser brachyrhynchus</i> (over winter, supports 7.1% of the population – Article 4.2)</li> <li>• oystercatcher <i>Haematopus ostralegus</i> (over winter, supports 4% of the population – Article 4.2)</li> <li>• pintail <i>Anas acuta</i> (over winter, supports 3.8% of the population – Article 4.2)</li> <li>• knot <i>Calidris canuta</i> (over winter, supports 3.6% of</li> </ul>	In relation to <b>Upper Solway Flats &amp; Marshes SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.  <b>Habitat Types represented (Biodiversity Action Plan categories)</b> <ul style="list-style-type: none"> <li>o Estuaries</li> <li>o Inshore sublittoral sediment</li> <li>o Intertidal mudflats and sandflats</li> <li>o Reefs</li> <li>o Saltmarsh including pioneer saltmarsh</li> <li>o Dune grassland</li> <li>o Coastal shingle vegetation</li> <li>o Maritime cliff woodland (in Scotland only)</li> </ul>	Site <b>CA24 Hespin Wood landfill</b> , near Carlisle, is identified for <b>non-inert landfill</b> and lies 740m from the SPA.  Site <b>CA31 Kingmoor Park East</b> , Carlisle, is a first preference for a <b>waste treatment facility</b> and is also identified for an <b>Energy from Waste plant</b> , and lies 3.7km from the SPA.

SITE	LOCATION/ AREA	REASON(S) FOR DESIGNATION	CONSERVATION OBJECTIVES	SITE ALLOCATIONS
		<p>the population – Article 4.2)</p> <ul style="list-style-type: none"> <li>• shelduck <i>Tadorna tadorna</i> (over winter, supports 3% of the GB population – Article 4.2)</li> <li>• dunlin <i>Calidris alpina</i> (over winter, supports 2.7% of the GB population – Article 4.2)</li> <li>• grey plover <i>Pluvialis squatarola</i> (over winter, supports 2.4% of the GB population – Article 4.2)</li> <li>• curlew <i>Numenius arquata</i> (over winter, supports 1.7% of the population – Article 4.2)</li> <li>• redshank <i>Tringa totanus</i> (over winter, supports 1.7% of the GB population – Article 4.2)</li> <li>• goldeneye <i>Bucephala clangula</i> (over winter, supports 1.1% of the GB population – Article 4.2)</li> <li>• teal <i>Anas crecca</i> (over winter, supports 0.9% of the GB population – Article 4.2)</li> <li>• turnstone <i>Arenaria interpres</i> (over winter, supports 0.9% of the GB population – Article 4.2)</li> <li>• sanderling <i>Calidris alba</i> (over winter, supports 0.9% of the GB population – Article 4.2)</li> <li>• shoveler <i>Anas clypeata</i> (over winter, supports 0.5% of the GB population – Article 4.2)</li> <li>• scaup <i>Aythya marila</i> (over winter, supports 0.5% of the population – Article 4.2)</li> <li>• over winter, the area regularly supports an internationally important assemblage of 133,440 individual water fowl - Article 4.2</li> </ul>	<p><b>Geological features (Geological Site Types)</b></p> <ul style="list-style-type: none"> <li>○ Active process geomorphological (IA)</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>○ Aggregations of breeding birds</li> <li>○ Aggregations of non-breeding birds</li> <li>○ Assemblage of non-breeding birds</li> <li>○ Breeding bird assemblage</li> <li>○ Natterjack Toad</li> <li>○ Great crested newt</li> <li>○ Vascular Plant assemblage</li> <li>○ Invertebrate assemblage</li> </ul>	<p>Site <b>CA30 Kingmoor Road recycling centre</b>, Carlisle, is a first preference for a <b>waste treatment facility</b> and lies 5km from the SPA.</p>

### Part 3 – European Sites and Features – RAMSAR

SITE	LOCATION/ AREA	REASON(S) FOR DESIGNATION	CONSERVATION OBJECTIVES	SITE ALLOCATIONS
Duddon Estuary Ramsar	03 15 24 W 54 10 39 N 6806.3 (ha)	<p><u>Criterion 2</u> supports nationally important numbers of the rare natterjack toad <i>Bufo calamita</i>, near the northwestern edge of its range (an estimated 18-24% of the British population). Supports a rich assemblage of wetland plants and invertebrates - at least one nationally scarce plant and at least two British Red Data Book invertebrates.</p> <p><u>Criterion 4</u> supports nationally important numbers of waterfowl during spring and autumn passage</p> <p><u>Criterion 5</u> over winter, supports an internationally important assemblage of 26,326 waterfowl</p> <p><u>Criterion 6</u> over winter, supports internationally important populations of northern pintail, red knot and common redshank</p>	<p>In relation to <b>Duddon Estuary SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>o Estuary</li> <li>o Saltmarsh</li> <li>o Littoral sediment</li> <li>o Inshore sublittoral sediment</li> <li>o Littoral rock</li> <li>o Inshore sublittoral rock</li> <li>o Coastal vegetated shingle</li> <li>o Sand dune (Strandline, embryo and mobile dunes, Fixed dune grassland, Humid dune slacks, Dune heath)</li> <li>o Coastal lagoon</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>o Aggregation of breeding sandwich tern (Annex 1 species)</li> <li>o Breeding bird assemblage</li> <li>o Aggregations of non-breeding birds</li> <li>o Natterjack toad</li> <li>o Invertebrate assemblage</li> <li>o Vascular plant assemblage</li> </ul> <p><b>Geological features (Geological Site Types)</b></p> <ul style="list-style-type: none"> <li>o Active process geomorphological (IA)</li> </ul>	<p>Site <b>CO34 Redhills Quarry, Millom</b>, is a first preference for a <b>Household Waste Recycling Centre</b> and lies 100m from the Ramsar.</p> <p>Site <b>M31 Salthouse, near Millom</b>, is identified as a <b>potential railhead to be safeguarded</b> for Ghyll Scaur Quarry, and lies 300m from the Ramsar.</p> <p>Site <b>BA10 Goldmire Quarry</b>, Barrow, is identified for <b>non-inert landfill</b> and lies 2km from the Ramsar.</p>
Esthwaite Water Ramsar	02 59 06 W 54 21 37 N 137.4 (ha)	<p><u>Criterion 1</u> a particularly good example of a mesotrophic lake, with a well developed hydrosere at the northern end</p> <p><u>Criterion 2</u> supports a rich assemblage of pondweed species and is the only known locality in England and Wales for slender naiad <i>Najas flexilis</i>. The diverse aquatic invertebrate fauna includes a number of species with restricted distributions in Britain.</p>		N/A – nearest site is SL1 Kendal Fell Quarry, which lies 13.5km away.

SITE	LOCATION/ AREA	REASON(S) FOR DESIGNATION	CONSERVATION OBJECTIVES	SITE ALLOCATIONS
Irthinghead Mires Ramsar	02 30 43 W 55 04 46 N 792.08 (ha) cross border with Northumbria	<p><u>Criterion 1</u> supports an outstanding example of undamaged blanket bogs, characteristic of the vegetation of upland north-western Britain. Most English blanket bogs have been extensively degraded by afforestation, burning, agricultural drainage and overgrazing. The Irthinghead Mires are one of few examples of this vegetation type in a near-natural state. There is also good representation of different topographic mire type and surface patterning.</p> <p><u>Criterion 2</u> notable variety of <i>Sphagnum</i> mosses</p> <p><u>Criterion 3</u> Butterburn Flow has several rare plants, whilst a rare spider, <i>Eboria caliginosa</i>, has been recorded at Coom Rogg Moss</p>		None
Leighton Moss Ramsar	02 47 31 W 54 10 03 N 128.61 (ha) cross border with Lancashire	<p><u>Criterion 1</u> reedbeds, of particular importance as a northern outpost for breeding populations of great bittern <i>Botaurus stellaris</i>, Eurasian marsh harrier <i>Circus aeruginosus</i> and bearded tit <i>Panurus biarmicus</i>.</p> <p><u>Criterion 3</u> as well as supporting a range of breeding birds, also supports species occurring in nationally important numbers outside the breeding season, including northern shoveler <i>Anas clypeata</i> and water rail <i>Rallus aquaticus</i></p>		N/A – nearest site is SL1 Kendal Fell Quarry, which lies 16.5km away.
Morecambe Bay Ramsar	02 57 21 W 54 07 19 N 37404.6 (ha) cross border with Lancashire	<p><u>Criterion 4</u> staging area for migratory waterfowl including internationally important numbers of passage ringed plover <i>Charadrius hiaticula</i>.</p> <p><u>Criterion 5</u> over winter, supports an internationally important assemblage of 223,709 waterfowl</p> <p><u>Criterion 6</u> wide range species/populations occurring at levels of international importance</p>	<p>In relation to <b>South Walney &amp; Piel Channel Flats SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>○ Inlets and bays</li> <li>○ Littoral sediment</li> <li>○ Sublittoral sediment</li> <li>○ Littoral rock</li> <li>○ Sublittoral rock</li> <li>○ Shingle</li> </ul>	Site <b>M27 Roose Sand Quarry</b> , Barrow, is a Preferred Area for <b>sand extraction</b> and lies 270m from the Ramsar.

SITE	LOCATION/ AREA	REASON(S) FOR DESIGNATION	CONSERVATION OBJECTIVES	SITE ALLOCATIONS
			<ul style="list-style-type: none"> <li>o Saltmarsh</li> <li>o Sand dune (Strandline, embryo and mobile dunes, fixed dune grassland)</li> <li>o Coastal Lagoon</li> </ul> <b>Species represented</b> <ul style="list-style-type: none"> <li>o Aggregation of breeding birds (sandwich tern (Annex 1 species))</li> <li>o Aggregations of breeding birds</li> <li>o Aggregations of non-breeding birds</li> <li>o Invertebrate assemblage</li> <li>o Vascular plant assemblage</li> </ul> <b>Geological features (Geological Site Types)</b> <ul style="list-style-type: none"> <li>• Active process - geomorphological (IA)</li> </ul>	
Upper Solway Flats & Marshes Ramsar	03 25 27 W 54 54 20 N 43636.73 (ha)	<p><u>Criterion 2</u> supports over 10% of the British population of natterjack toad <i>Bufo calamita</i></p> <p><u>Criterion 5</u> over winter, supports an internationally important assemblage of 135,720 waterfowl</p> <p><u>Criterion 6</u> wide range species/populations occurring at levels of international importance</p>	<p>In relation to <b>Upper Solway Flats &amp; Marshes SSSI</b> - subject to natural change, to maintain the following habitats and geological features in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.</p> <p><b>Habitat Types represented (Biodiversity Action Plan categories)</b></p> <ul style="list-style-type: none"> <li>o Estuaries</li> <li>o Inshore sublittoral sediment</li> <li>o Intertidal mudflats and sandflats</li> <li>o Reefs</li> <li>o Saltmarsh including pioneer saltmarsh</li> <li>o Dune grassland</li> <li>o Coastal shingle vegetation</li> <li>o Maritime cliff woodland (in Scotland only)</li> </ul> <p><b>Geological features (Geological Site Types)</b></p> <ul style="list-style-type: none"> <li>o Active process geomorphological (IA)</li> </ul> <p><b>Species represented</b></p> <ul style="list-style-type: none"> <li>o Aggregations of breeding birds</li> <li>o Aggregations of non-breeding birds</li> <li>o Assemblage of non-breeding birds</li> <li>o Breeding bird assemblage</li> <li>o Natterjack Toad</li> <li>o Great crested newt</li> <li>o Vascular Plant assemblage</li> <li>o Invertebrate assemblage</li> </ul>	<p>Site <b>CA24 Hespin Wood landfill</b>, near Carlisle, is identified for <b>non-inert landfill</b> and lies 740m from the Ramsar.</p> <p>Site <b>CA31 Kingmoor Park East</b>, Carlisle, is a first preference for a <b>waste treatment facility</b> and is also identified for an <b>Energy from Waste plant</b>, and lies 3.7km from the Ramsar.</p> <p>Site <b>CA30 Kingmoor Road recycling centre</b>, Carlisle, is a first preference for a <b>waste treatment facility</b> and lies 5km from the Ramsar.</p>

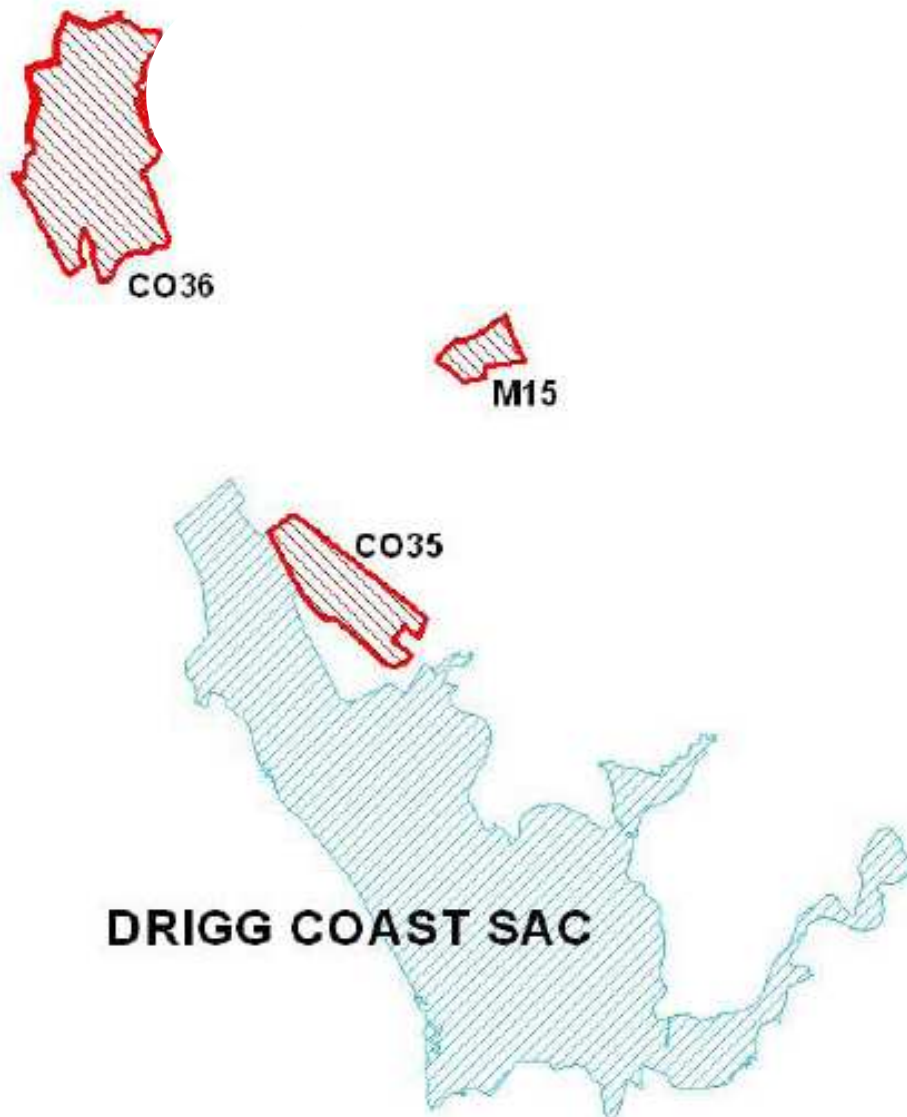


#### Part 4 – European Sites and Features within adjoining authorities

SITE	PRIMARY FEATURES
Craven Limestone Complex SAC	Active raised bogs, alkaline fens Petrifying springs Limestone pavements Molinia meadows, semi-natural dry grasslands and scrubland Hard oligo-mesotrophic waters with benthic vegetation
Ingleborough Complex SAC	Large stands of Juniper Alkaline fens Calcareous rocky slopes Limestone pavements
Ox Close SAC	Calaminarian grasslands
Roman Wall Loughs SAC	Natural eutrophic lakes, pondweeds
Tyne and Allen River Gravels SAC	Calaminarian grasslands

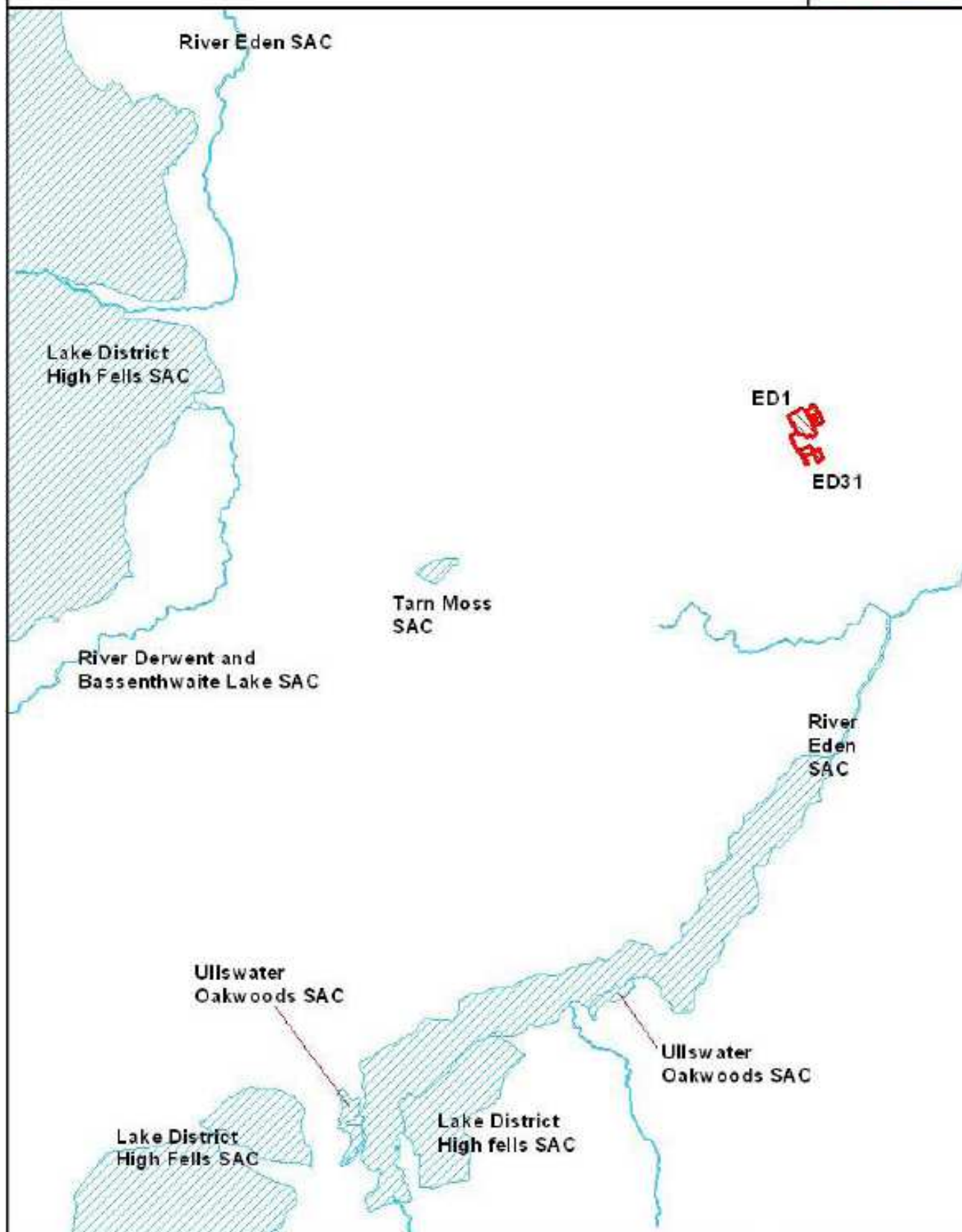
## **MAPS OF THE EUROPEAN WILDLIFE SITES AND LOCATIONS OF PROPOSED SITES**

 **CO11**



# Regulation 30 Site Allocations Policies

Lake District High Fells SAC - North



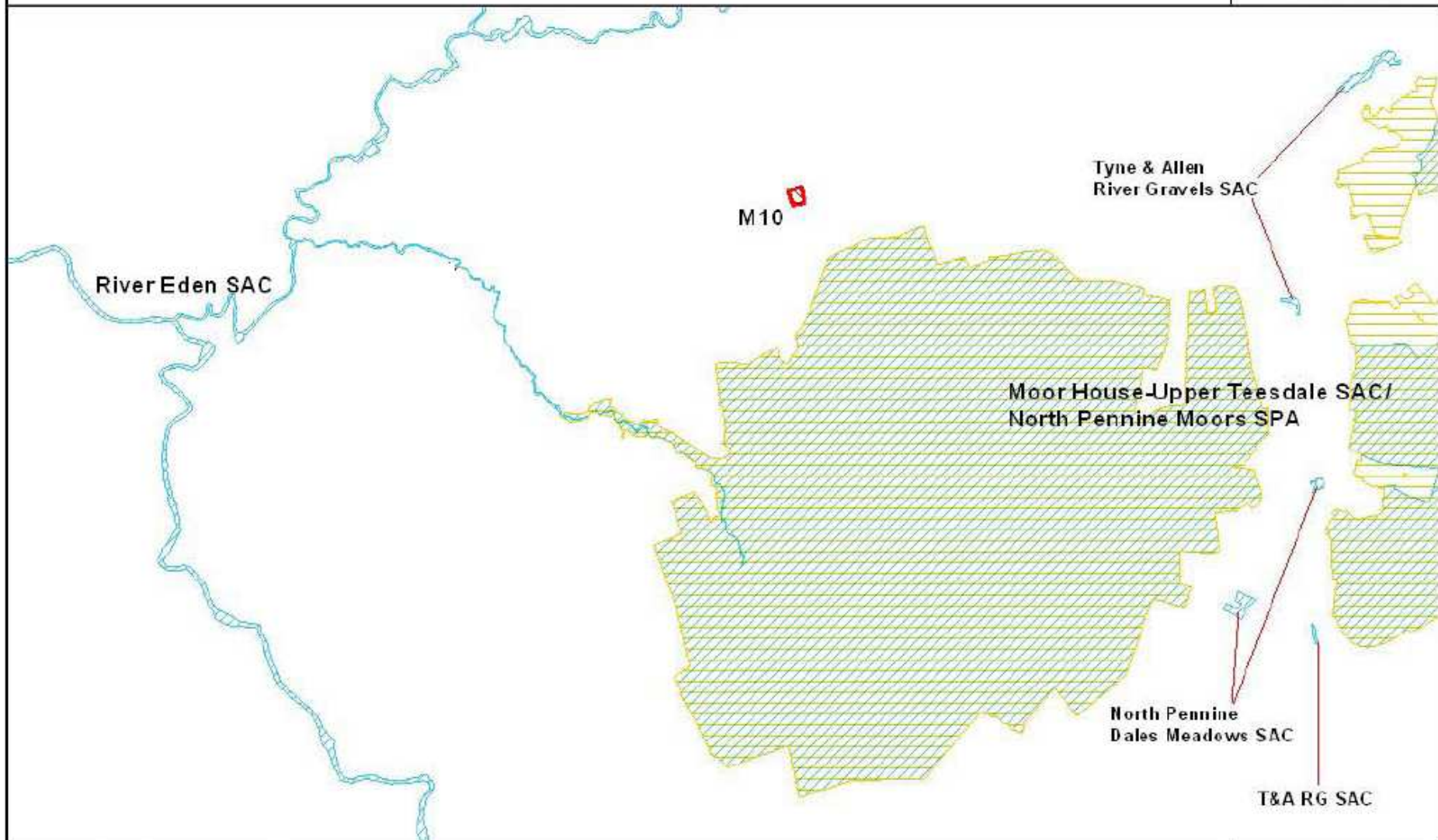
© Crown copyright. All rights reserved. Cumbria County Council 1000 65555, 2009.

Scale  
1:85000



## Regulation 30 Site Allocations Policies

### Moor House-Upper Teesdale SAC/N. Pennine Moors SPA - north



© Crown copyright. All rights reserved. Cumbria County Council, 1000 19596, 2009.

Scale  
1:95000





## Regulation 30 Site Allocations Policies

Moor House-Upper Teesdale SAC/N. Pennine Moors SPA - central



© Crown copyright. All rights reserved. Cumbria County Council, 1990 1996, 2009.

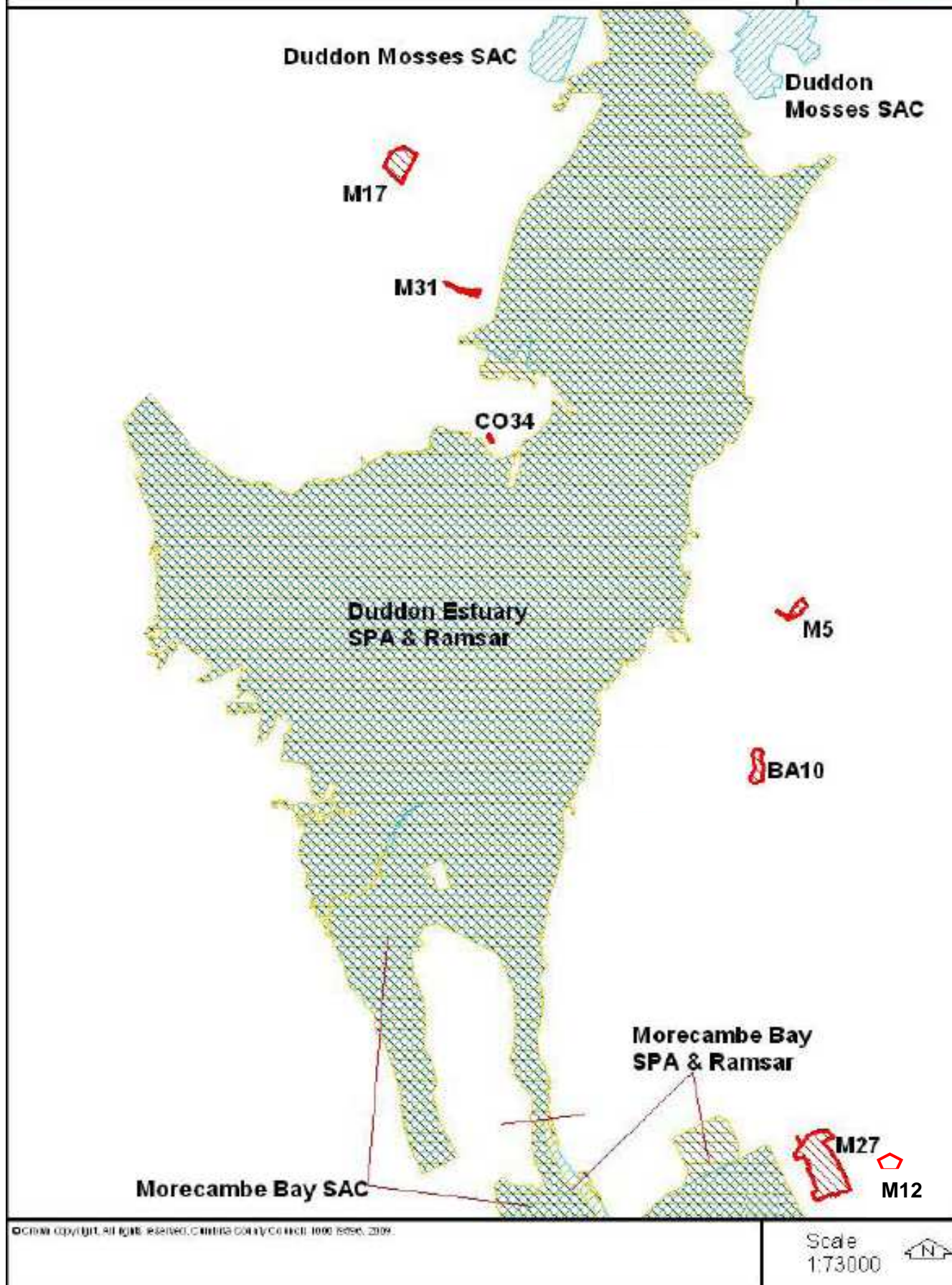
Scale  
1:70000



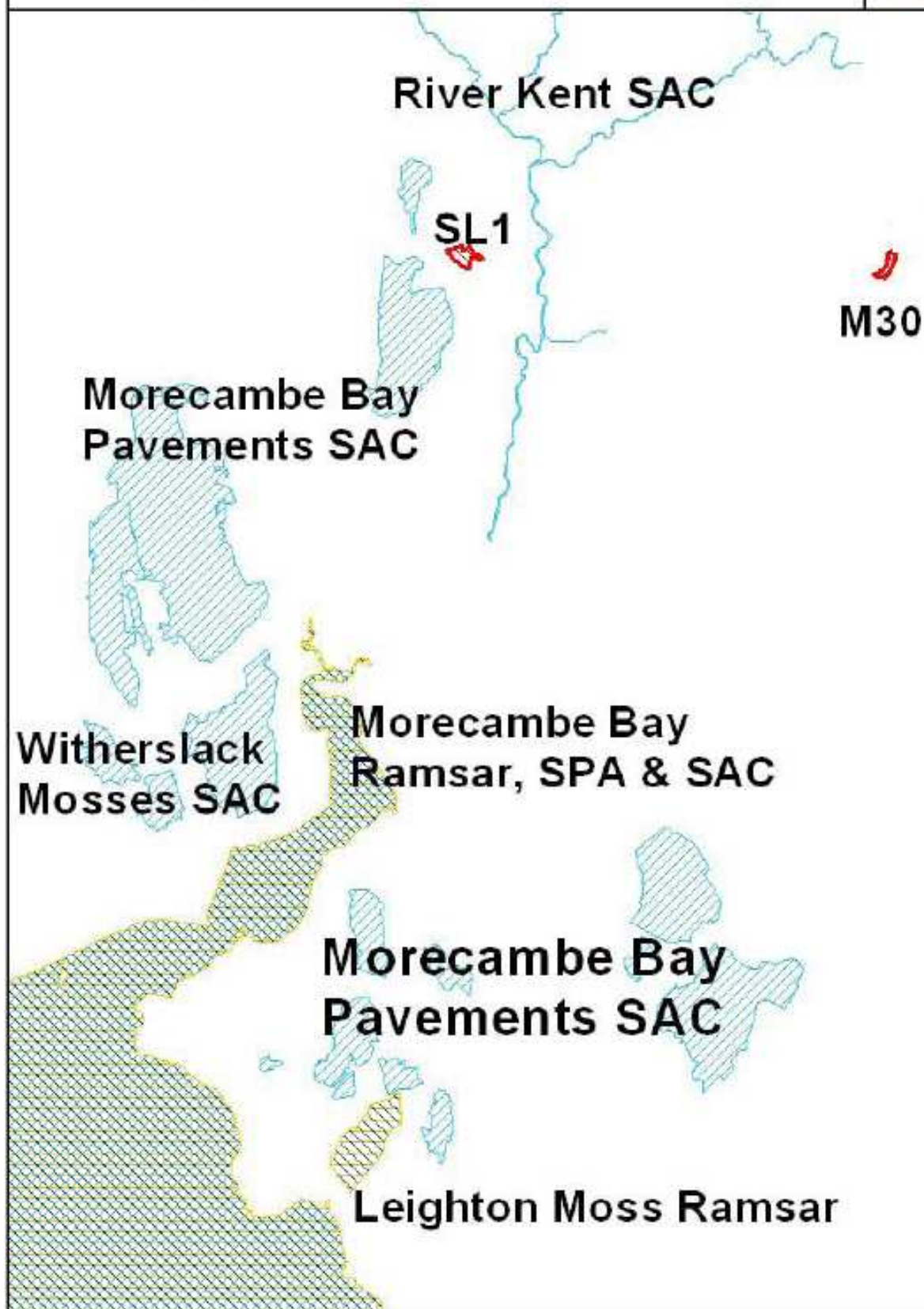


# Regulation 30 Site Allocations Policies

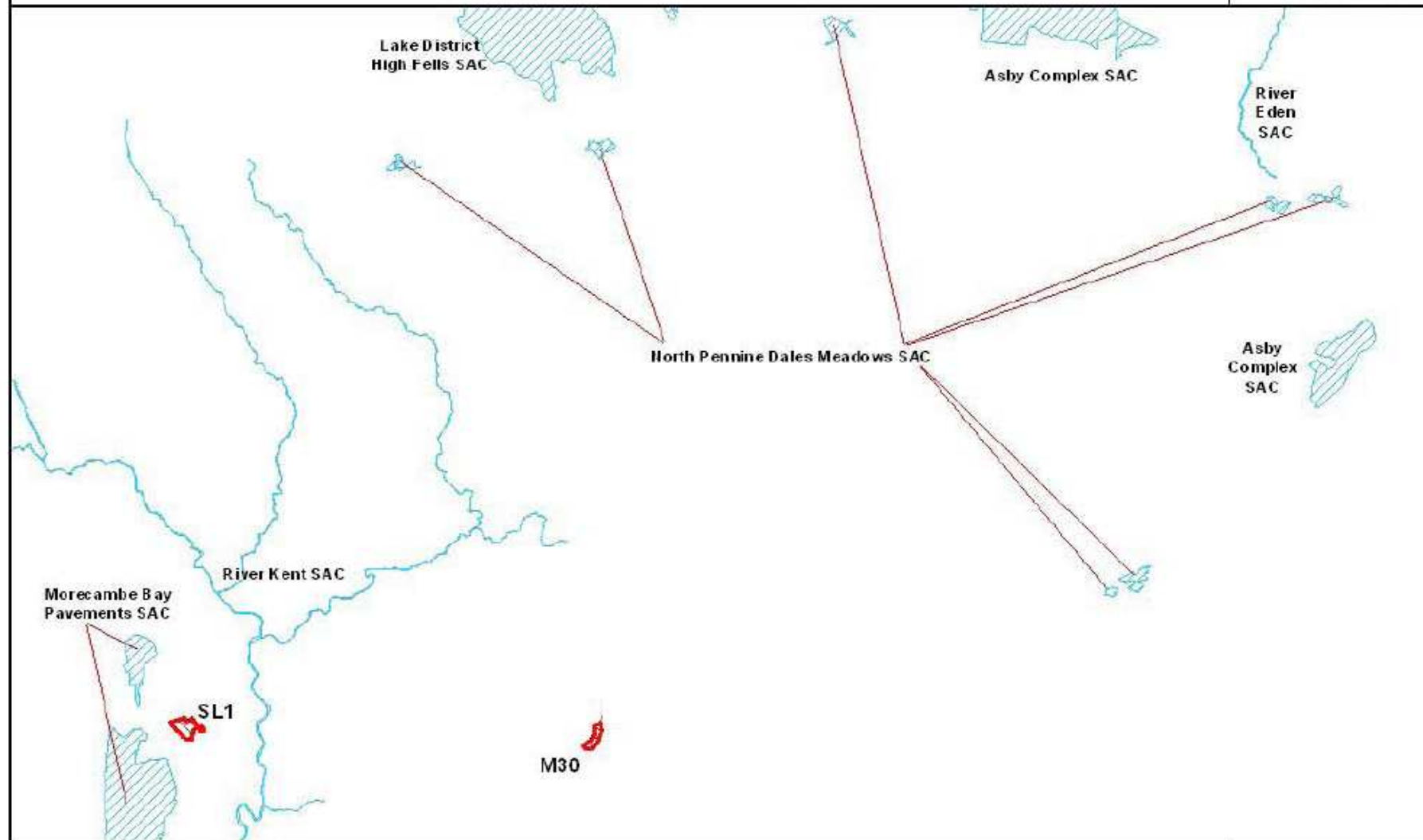
Morecambe Bay SAC, Duddon Estuary SPA/Ra







# Regulation 30 Site Allocations Policies North Pennine Dales Meadows SAC - south

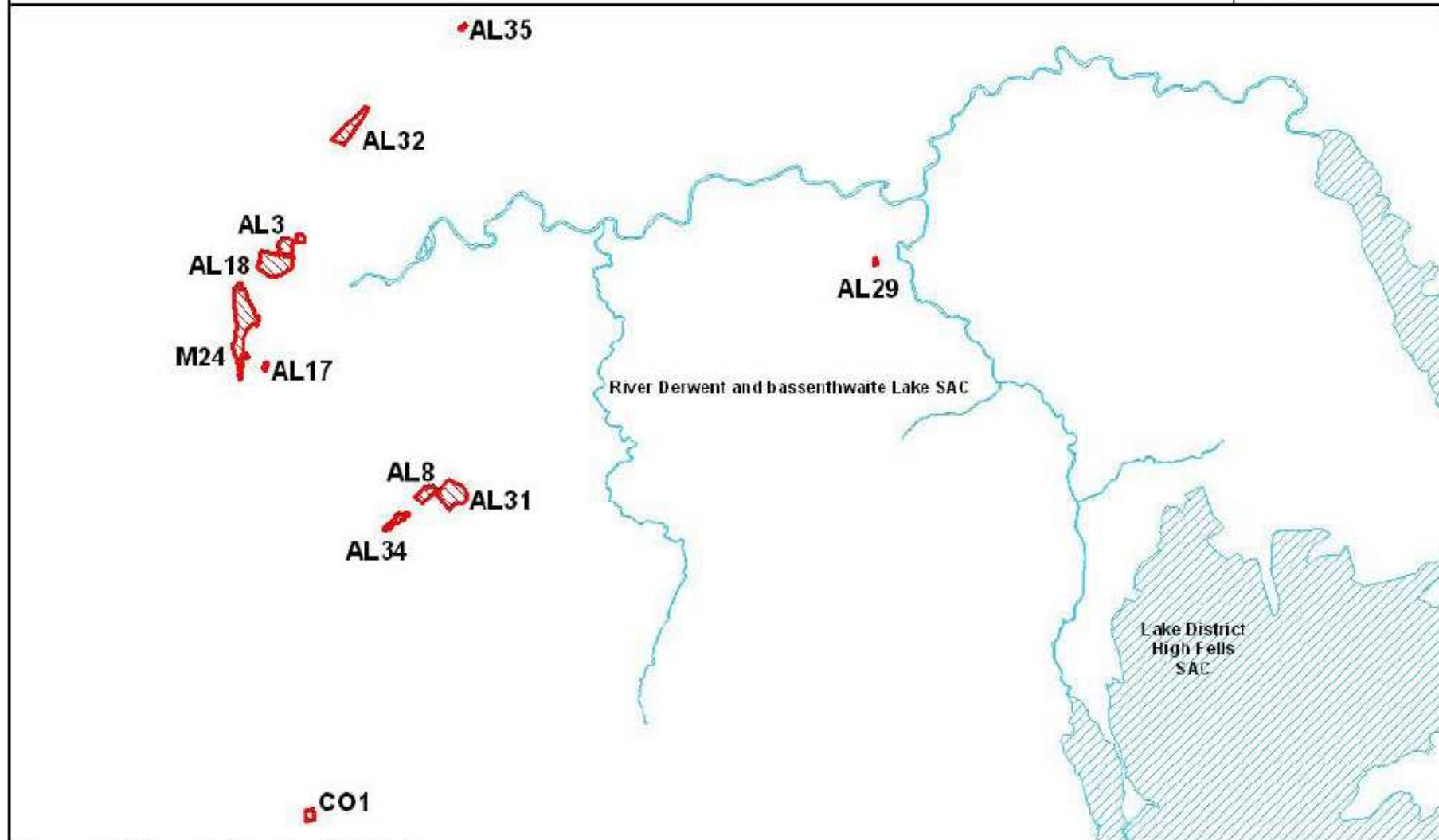


© Crown copyright. All rights reserved. Cumbria County Council, 1000 19396, 2009.

Scale  
1:105000



**Regulation 30 Site Allocations Policies**  
**River Derwent and Bassenthwaite Lake SAC**



© Crown copyright. All rights reserved. Cumbria County Council, 100019596, 2009.

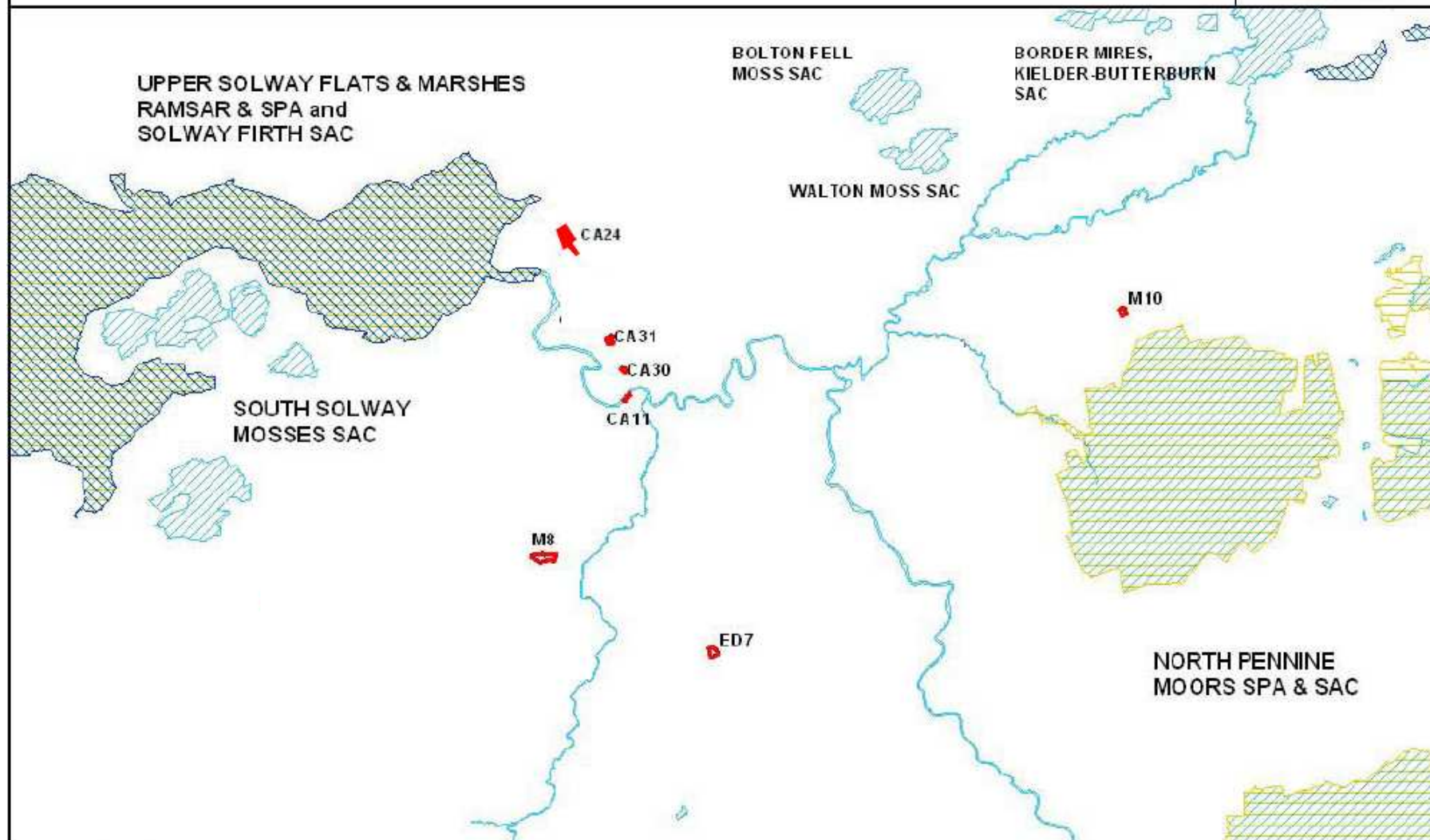
Scale  
1:102000





# Regulation 30 Site Allocations Policies

## River Eden SAC - northern section



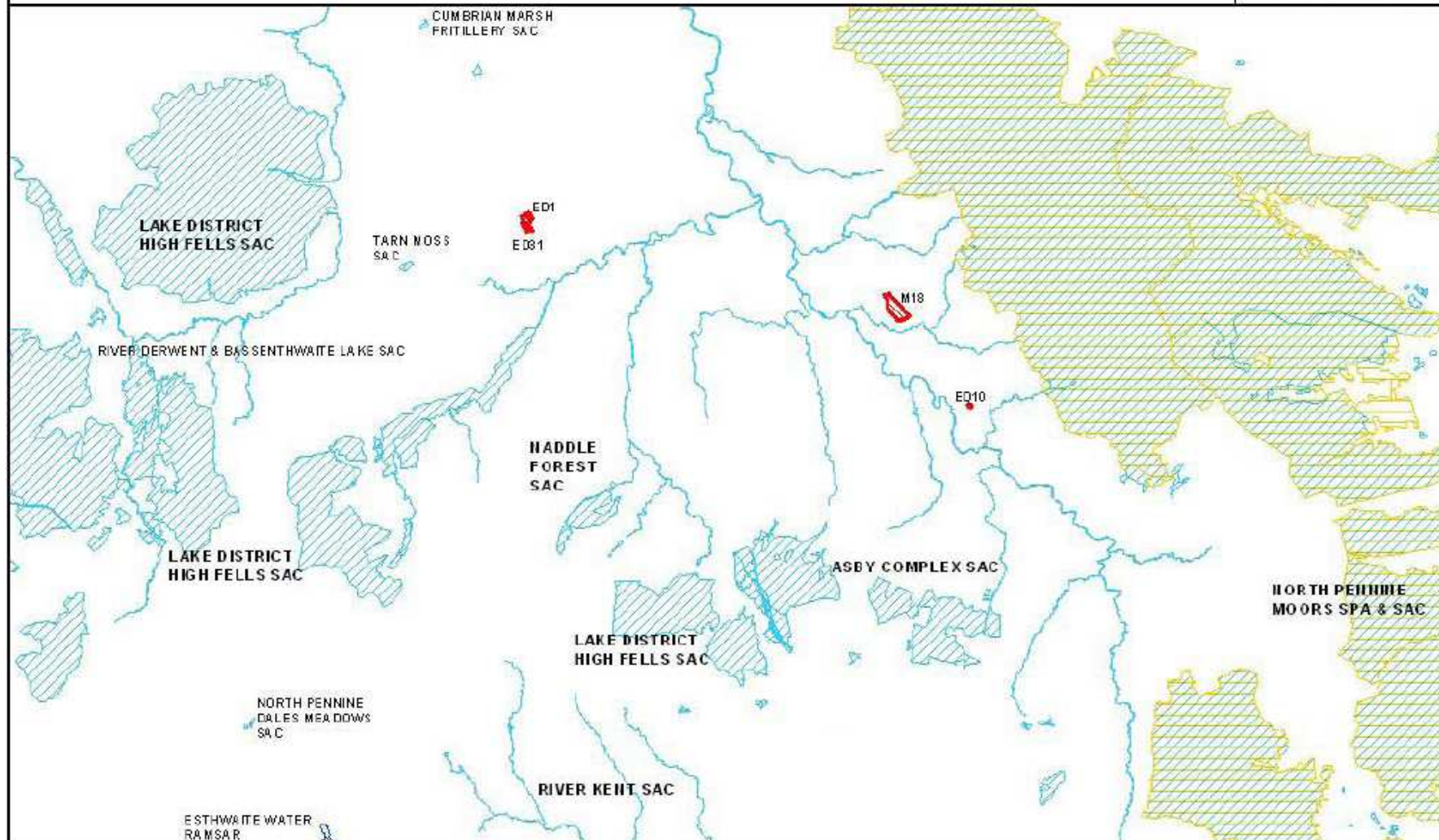
© Crown copyright. All rights reserved. Cumbria County Council, 1000 1996, 2009.

Scale  
1:204000



## Regulation 30 Site Allocations Policies

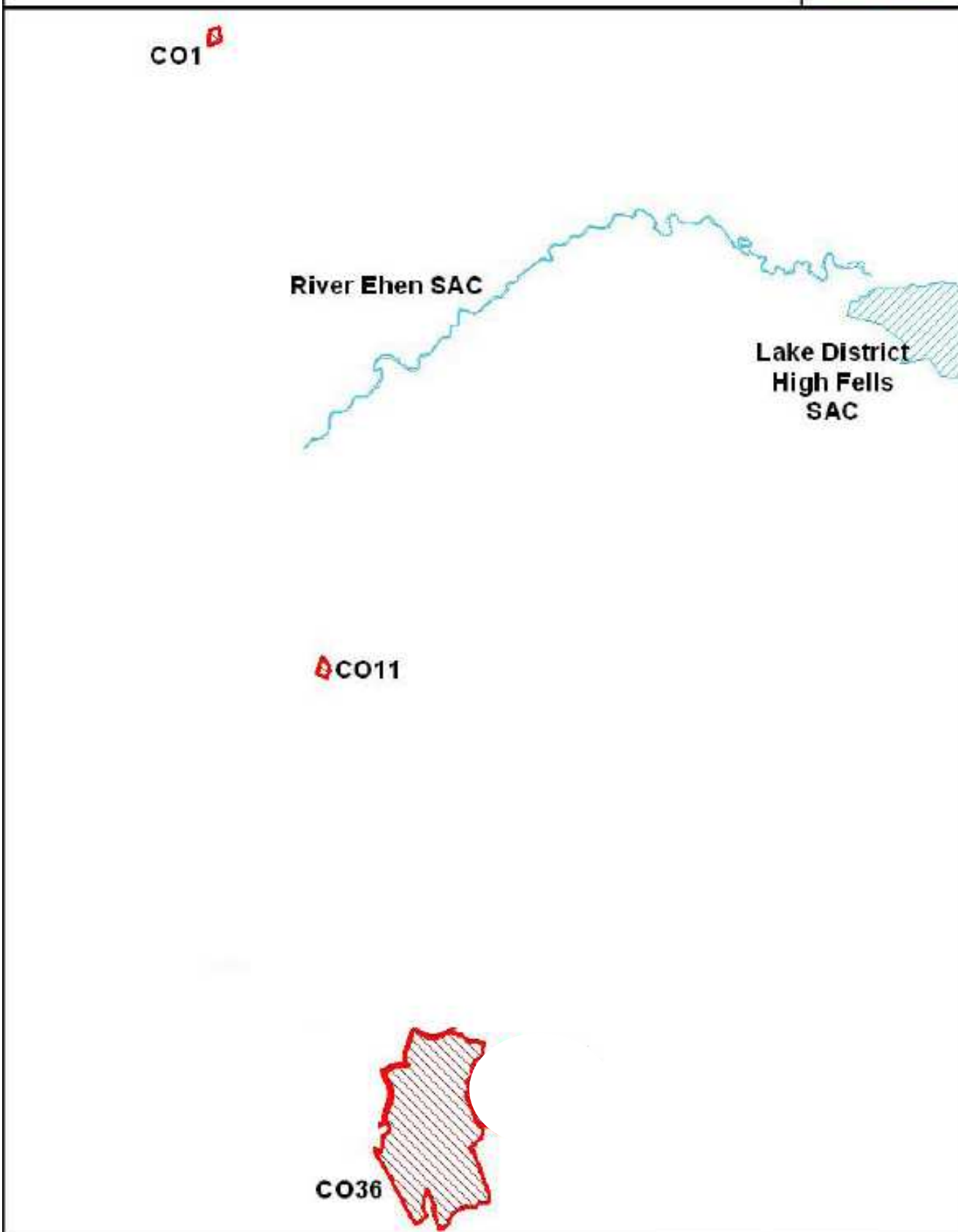
### River Eden SAC - southern section



© Crown copyright. All rights reserved. Cumbria County Council, 1000 19995, 2009.

Scale  
1:270000

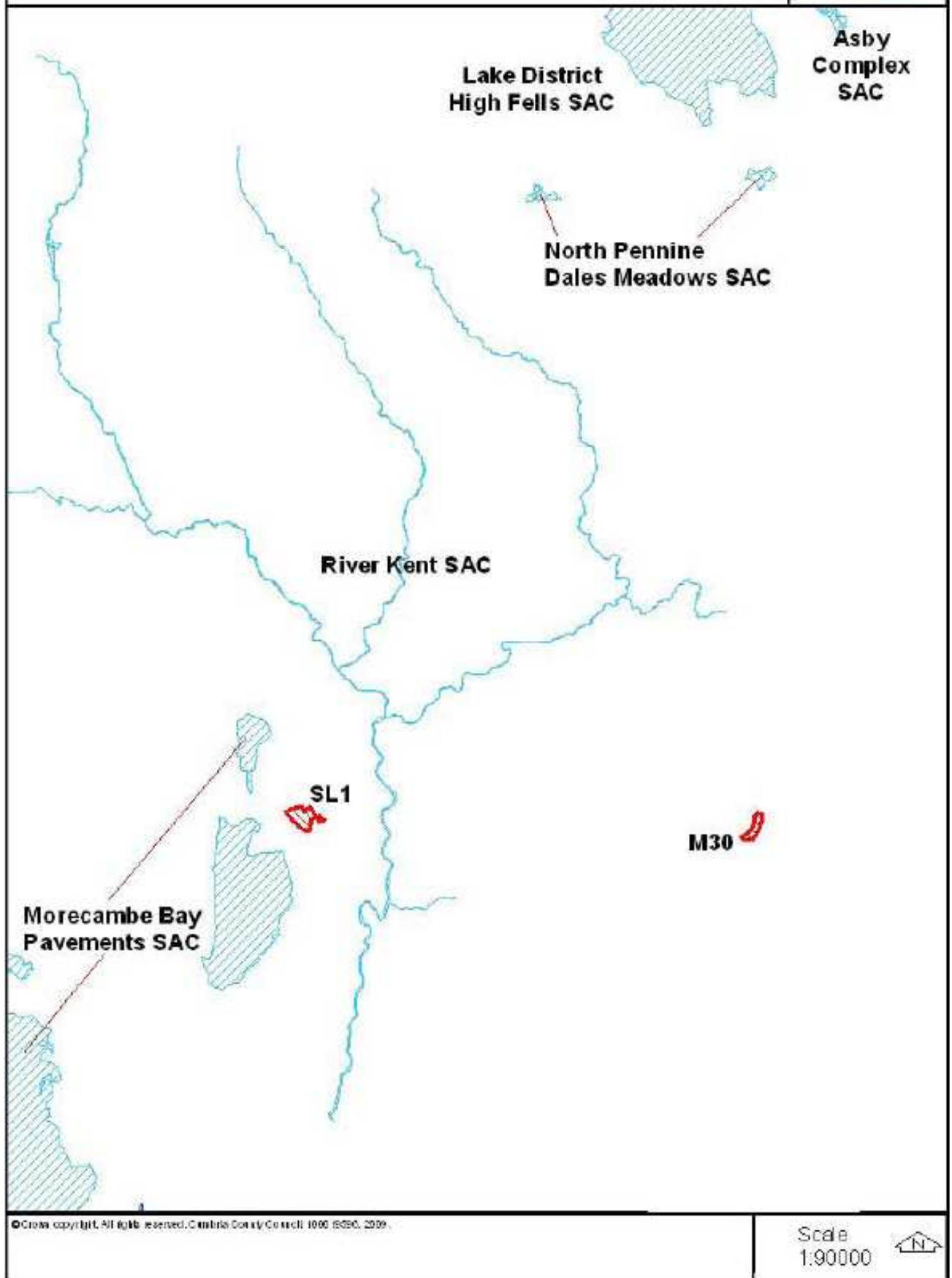






# Regulation 30 Site Allocations Policies

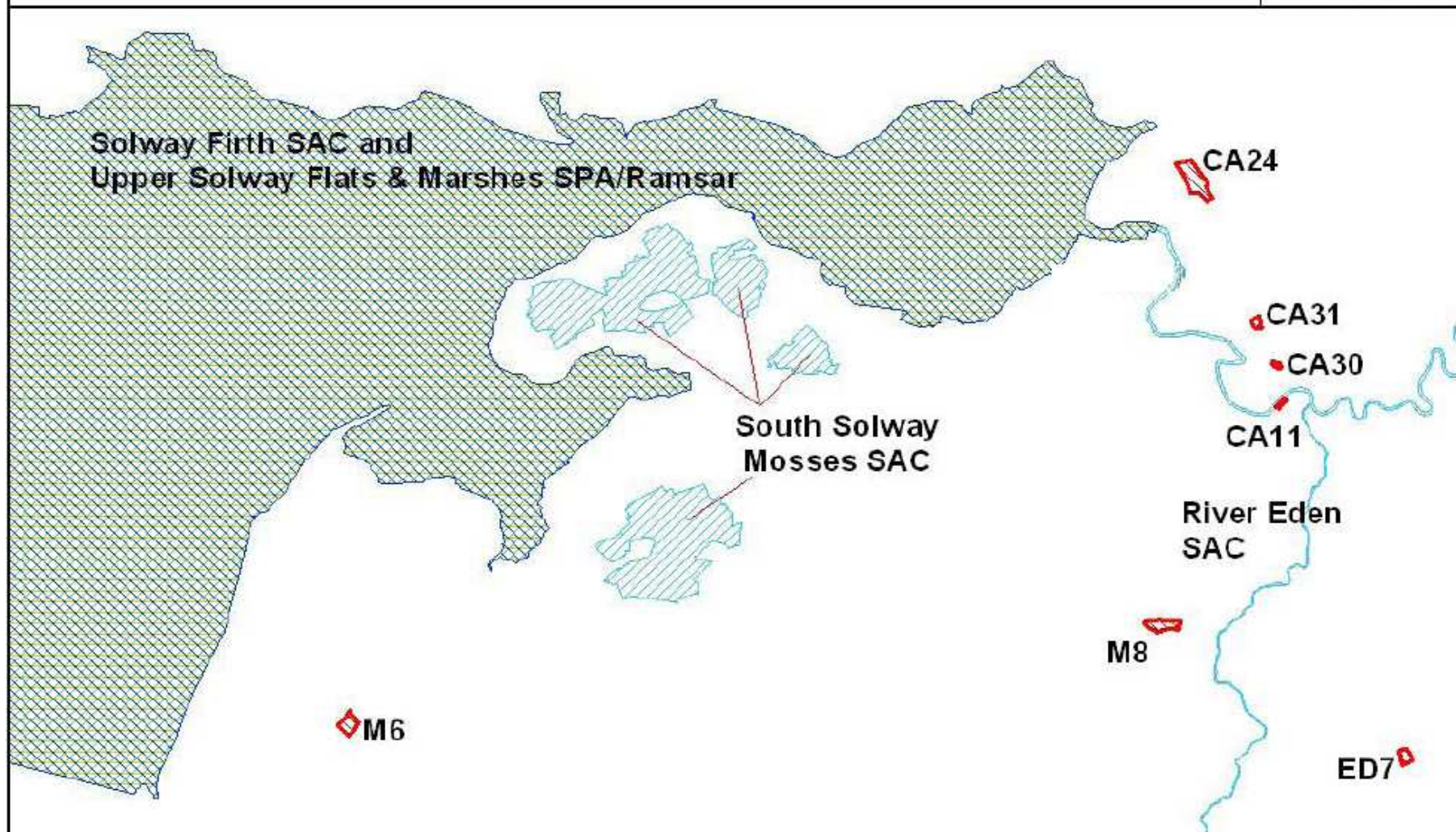
## River Kent SAC





## Regulation 30 Site Allocations Policies

Solway Firth SAC, Upper Solway Flats&Marshes SPA/Ramsar-east



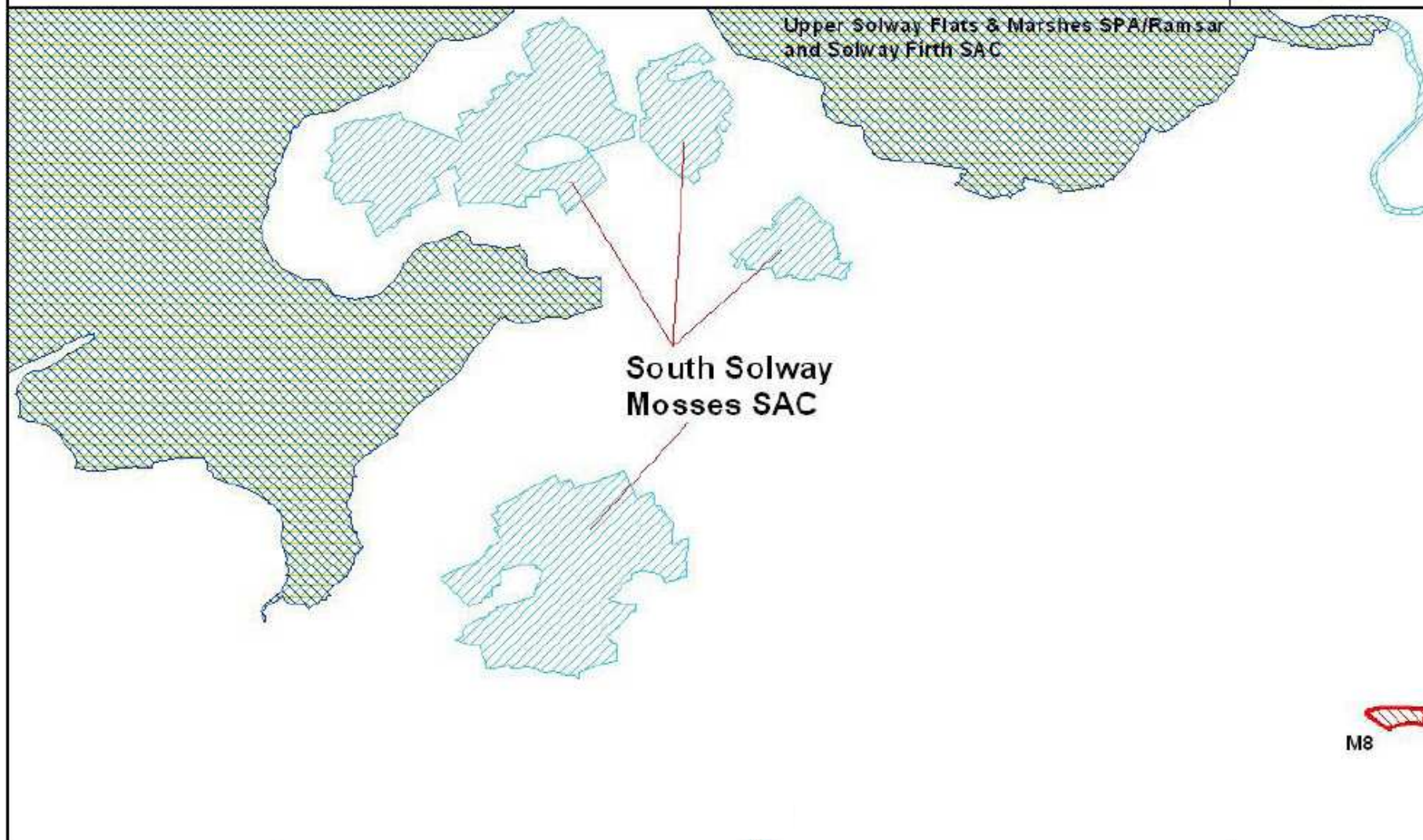
© Crown copyright. All rights reserved. Cumbria County Council, 1000 19596, 2009.

Scale  
1:145000



## Regulation 30 Site Allocations Policies

### South Solway Mosses SAC



© Crown copyright. All rights reserved. Cumbria County Council, 1000 19596, 2009.

Scale  
1:84000

