

# Flood and Water Management Act 2010

## Local Flood Risk Management Strategy and Action Plan

Habitats Regulations Assessment  
Annexes to the Appropriate Assessment

**DRAFT**

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**RHONDDA CYNON TAF**

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## **ANNEX A**

### Identification and Descriptions of Relevant Sites

# 1. INTRODUCTION

## 1.1. BACKGROUND

Habitats Regulations Assessments (HRA) are required by the Conservation of Habitats and Species Regulations (2010), to consider if a plan or project is likely to have a significant effect on a European designated site regarding its nature conservation interest. This report forms Annex A of the HRA, concluding sites to be included in the HRA for Rhondda Cynon Taf's (RCT) revised Local Flood Risk Management Strategy and Action Plan (Local Strategy).

## 1.2 STUDY AREA

The Local Strategy will include up to the administrative boundary of Rhondda Cynon Taf County Borough Council (RCTCBC) as indicated in Figure 1. This area is roughly 424km<sup>2</sup>, containing parts of four European Designated sites.



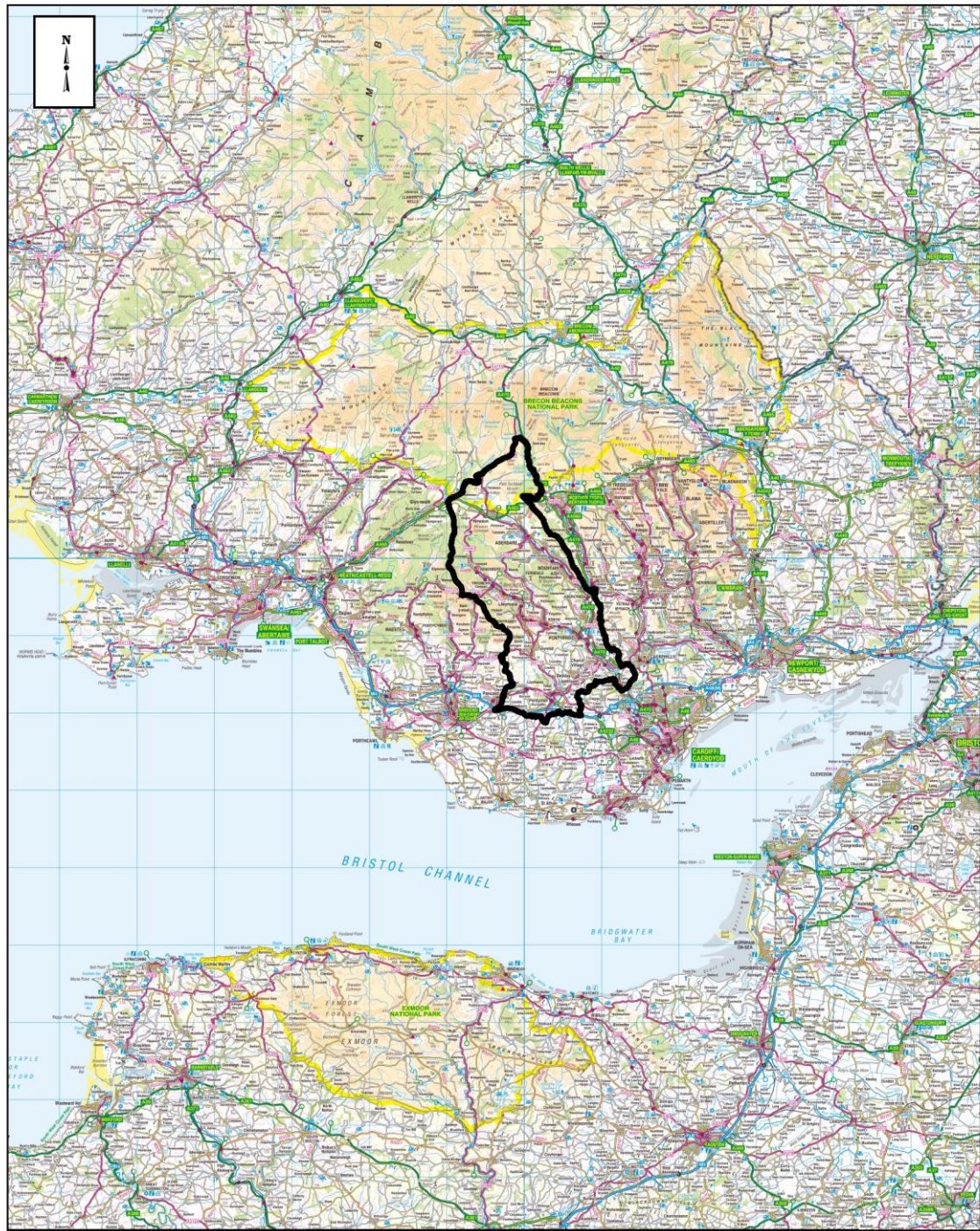


Figure 1: Map of the Administrative Boundary of RCTCBC



## 2. IDENTIFYING RELEVANT NATURA 2000 SITES

Figure 2 overleaf shows the European Designated sites within the RCT boundary. Four sites have been identified and will be included in the HRA: -

- Blaen Cynon SAC;
- Cardiff Beech Woods SAC;
- Coedydd Nedd a Mellte SAC; and
- Cwm Cadlan SAC.

It is acknowledged that the Local Strategy will have implications that extend beyond the intended plan boundaries and that distance is not a definitive guide to the likelihood or severity of impacts on European Designated Sites. The HRA will need to encompass Natura 2000 sites outside of the RCT boundary if the sites integrity is at risk.

Following informal correspondence with the Countryside Council for Wales (CCW) (now Natural Resources Wales (NRW)), during the initial cycle of the Local Strategy in 2011-2013, a methodology has been developed that includes all sites within the RCT boundary and analyses the impact on European Designated Sites of sites within an overcautious, 15km buffer zone around RCT. This assessment has used factors such as surface water flows, ground water flows and mobile species to predict impact of the revised Local Strategy on the site.

Table 1 below lists the Natura 2000 sites found within the 15km buffer zone. Table 2 assesses each of the sites within the 15km buffer zone around RCT for relevance to the HRA assessment of the Local Strategy.

**Table 1:** Natura 2000 Sites Within a 15km buffer zone of RCT

Site Name	Designation	Distance from RCT boundary (km)
Brecon Beacons	SAC	4.1
Aberbargoed Grasslands	SAC	8.44
River Usk	SAC	8.77
Blackmill Woods	SAC	8.85
Cefn Cribwr Grasslands	SAC	10.05
Kenfig/ Cynffig	SAC	10.97
Severn Estuary	SAC	11.02
Severn Estuary	SPA	11.02
Severn Estuary	Ramsar	11.02
Dunraven Bay	SAC	12.07

Usk Valley Bat Sites	SAC	14.83
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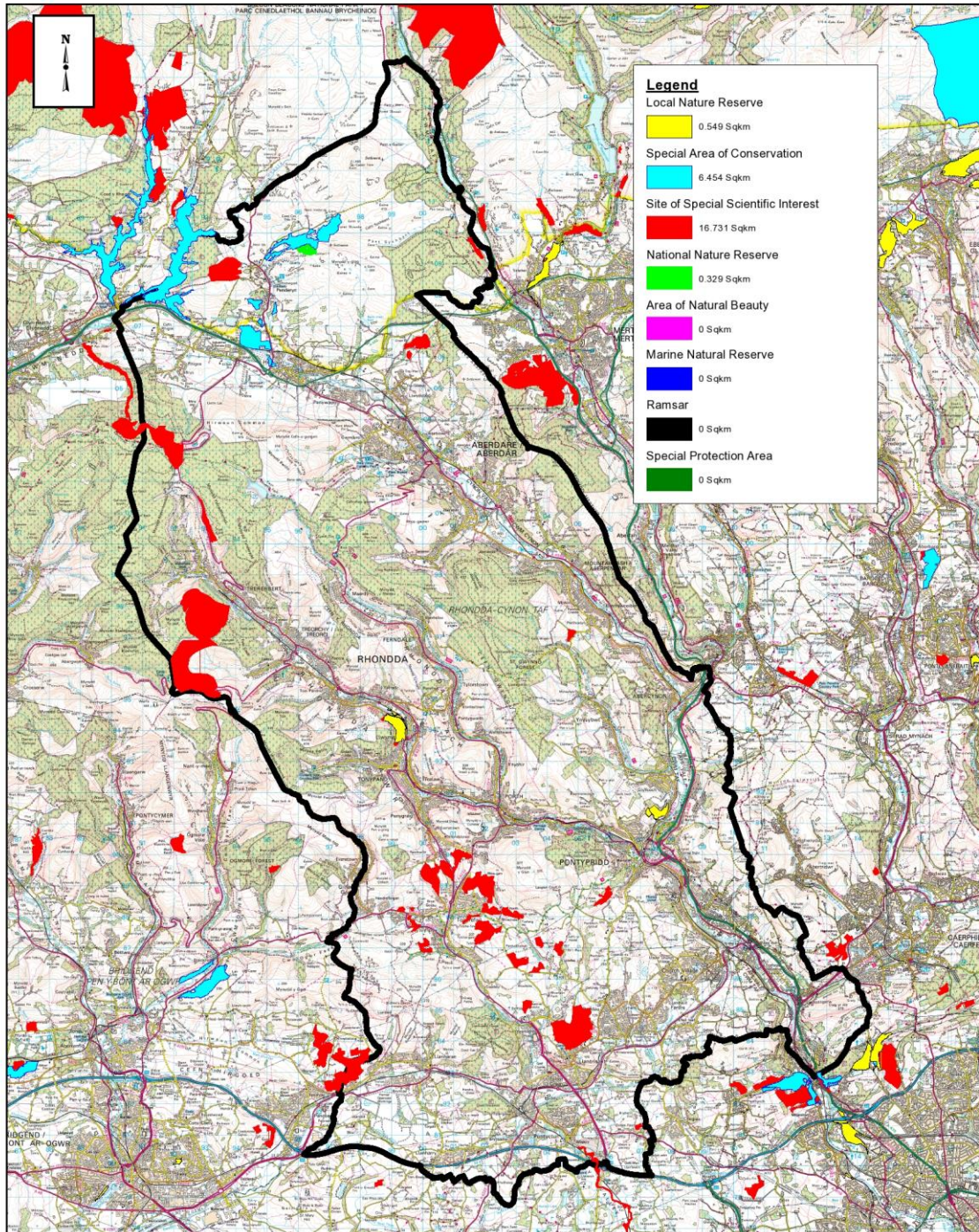


Figure 2: Map of Designated sites in Rhondda Cynon Taf



**Table 2:** Assessment of each Natura 2000 site within the 15km buffer zone around RCT for relevance to the Local Strategy HRA

Site Name	Is the site hydrologically connected to RCT territory?	Is the site home to mobile species that use sites in RCT?	Include in HRA?	Comments
Brecon Beacons SAC	RCT is downstream of the SAC site, hence alterations to the hydrology of RCT will not affect the SAC.	There are no qualifying mobile species associated with this SAC site.	No	N/A
Aberbargoed Grasslands SAC	RCT is downstream of the SAC site, hence alterations to the hydrology of RCT will not affect the Aberbargoed SAC.	The <a href="#">Marsh fritillary butterfly</a> will not be affected by changes in RCT's hydrological regime.	No	N/A
River Usk SAC	This site is within a different river catchment	The Local Strategy will not affect migratory species associated with this SAC site.	No	N/A
Blackmill Woodlands SAC	This site is downstream of RCT territory hence alterations to the hydrology of RCT will affect the SAC.	There are no qualifying mobile species associated with this SAC site.	Yes	The Local Strategy could affect the velocity, quantity and quality of groundwater, surface water and watercourses affecting the SAC site.
Cefn Cribwr Grasslands SAC	This site is downstream of RCT territory, however, due to its distance from RCT and the small area within RCT that feeds into this catchment, the Local Strategy will not significantly affect this SAC.	There are no qualifying mobile species associated with this SAC site.	No	N/A
Kenfig/ Cynffig SAC	This site is not hydrologically connected to RCT.	There are no qualifying mobile species that will be affected by developments in RCT.	No	N/A
Severn Estuary SAC	This site is downstream of RCT territory hence	The Local Strategy could affect mobile species in this site	Yes	The Local Strategy could affect the quantity and quality of

	alterations to the hydrology of RCT will affect the SAC.			water entering the SAC site. This in turn, could affect the mobile species associated with the site.
Severn Estuary SPA	This site is downstream of RCT territory hence alterations to the hydrology of RCT will affect the SAC.	The Local Strategy could affect mobile species in this site.	Yes	The Local Strategy could affect the quantity and quality of water entering the SPA site. This in turn, could affect the mobile species associated with the site.
Severn Estuary Ramsar	This site is downstream of RCT territory hence alterations to the hydrology of RCT will affect the SAC.	The Local Strategy could affect mobile species in this site.	Yes	The Local Strategy could affect the quantity and quality of water entering the Ramsar site. This in turn, could affect the mobile species associated with the site.
Dunraven Bay SAC	This site is not hydrologically connected to RCT.	There are no qualifying mobile species that will be affected by developments in RCT.	No	N/A
Usk Valley Bat Sites SAC	This site is not hydrologically connected to RCT.	There are no qualifying mobile species that will be affected by developments in RCT.	No	N/A

### **3. DESCRIPTIONS OF RELEVANT SITES**

Tables 3 to 8 that follow state for each European Designated Site that will be considered in the LFRMS: -

- The qualifying features of the site;
- The conservation objectives;
- The component Sites of Special Scientific Interest (SSSIs);
- The key environmental conditions;
- An assessment of the current condition;
- The vulnerabilities of the site; and
- Other AA and HRAs performed on the site.

**Table 3:** Blaen Cynon: Data Proforma

<b>Blaen Cynon: Data Proforma</b>	
<b>Qualifying Features</b>	<p>Annex II Species primary reason for selection:</p> <p>1) Marsh fritillary butterfly <i>Euphydryas (Eurodryas, Hypodryas) aurinia</i></p>
<b>Conservation Objectives</b>	<p>The vision for Feature 1:</p> <p>For it to be in a favourable conservation status, where all of the following conditions are satisfied:</p> <ul style="list-style-type: none"> <li>• The site will contribute towards supporting a sustainable metapopulation of the marsh fritillary in the Penderyn/ Hirwaun area. This will require a minimum of 50ha of suitable habitat, of which at least 10ha must be in good condition, although not all is expected to be found within the SAC. Some will be on nearby land within a radius of about 2km.</li> <li>• The population will be viable in the long term, acknowledging the extreme population fluctuations of the species.</li> <li>• A minimum of 30% of the total site area will be grassland suitable for supporting marsh fritillary. (As the total area of the SAC is 66.62 ha, 30% represents approximately 20 ha.)</li> <li>• At least 40% of the suitable habitat (approximately 8 ha) must be in optimal condition for breeding marsh fritillary.</li> <li>• Suitable marsh fritillary habitat is defined as stands of grassland where <i>Succisa pratensis</i> is present and where scrub more than 1-metre-tall covers no more than 10% of the stands.</li> <li>• Optimal marsh fritillary breeding habitat will be characterised by grassland where the vegetation height is 10-20 cm, with abundant purple moor-grass <i>Molinia caerulea</i>, frequent “large-leaved” devil’s-bit scabious <i>Succisa pratensis</i> suitable for marsh fritillaries to lay their eggs and only occasional scrub. In peak years, a density of 200 larval webs per hectare of optimal habitat will be found across the site.</li> </ul> <p>Performance Indicators for Feature 1:</p> <p>The performance indicators can be found at in The ‘Core Management Plan, Including Conservation Objectives For Blaen Cynon Special Area Of Conservation (SAC)’.</p>
<b>Component SSSIs</b>	<p>1) Cors Bryn-y-Gaer SSSI</p> <p>2) Woodland Park and Pontpren SSSI</p>
<b>Key Environmental Conditions</b>	<ul style="list-style-type: none"> <li>• Without an appropriate grazing regime, the grassland will become rank and eventually turn to scrub and woodland. Conversely, overgrazing, or grazing by inappropriate stock (particularly sheep) will also lead to unwanted changes in species composition, through</li> </ul>

<p><b>(factors affecting site integrity)</b></p>	<p>selective grazing, increased nutrient inputs and poaching. Balancing grazing is the single most important issue in the management of this site.</p> <ul style="list-style-type: none"> <li>• Extent and quality of the marshy grassland as habitat for marsh fritillary; approximately 50ha of habitat required to maintain the population in the long-term, with at least 10ha is good condition. Not all is expected to be within the SAC. The operational limits reflect the minimum contribution of the Blaen Cynon SAC towards the favourable conservation status of the species in the Hirwaun/ Penderyn area.</li> <li>• Maintain population of devil's-bit scabious; the Marsh Fritillary Butterfly's larval food plant.</li> <li>• Hydrological Regime - the drainage and hydrological conditions on the site should be maintained to favour the habitats that support the Marsh Fritillary and their management. Devil's-bit scabious prefers moist soils.</li> <li>• To conserve a cluster of sites within close proximity – the existing SAC boundary does not take in all areas of suitable habitat in the surrounding area.</li> </ul>
<p><b>SAC condition Assessment</b></p>	<p>Counts of Marsh Fritillary larval webs have been undertaken regularly since 1999. Numbers of webs have not achieved the levels required by the performance indicators. Monitoring has also concluded that there is insufficient good and available habitat. The assessment for both component SSSIs was that they were in unfavourable condition, and in this case, we can give condition information at the unit level.</p>
<p><b>Vulnerabilities</b></p>	<p>1) Scrub encroachment</p> <p>Scrub encroachment is an issue, particularly on some wet grassland areas. A more-or-less continuous programme of scrub control is required at this site. It is clear from aerial photographs and from discussions with landowners, that many areas that are currently covered in alder and willow woodland were formerly wet pasture. Therefore, a long-term aim would be to investigate returning some of this to wet pasture that would likely increase the availability of Marsh Fritillary habitat.</p> <p>2) Grazing</p> <p>Some areas of grassland are overgrazed whereas other areas are under grazed.</p> <p>3) Inappropriate tree planting</p> <p>Areas of the SAC have been subject to improvement works in preparation for tree planting, such as draining, planting with trees and use of fertilisers.</p> <p>4) Parasites</p> <p>Larvae of Marsh Fritillaries can be parasitized by species of braconid wasp of the <i>Cotesia</i> genus. These parasites can have good years and infect many larval</p>



	<p>webs, causing a crash in the subsequent adult population of Marsh Fritillary. This factor is outside human influence meaning there is little that can be done in the management of this site to reduce this.</p> <p>5) Weather conditions</p> <p>Weather conditions influence the breeding success of the Marsh Fritillary. Poor weather conditions during the adult flight period will reduce opportunities for mating, egg-laying and dispersal from core areas. Weather conditions during early spring influence the rate of larval development of the Marsh Fritillary and the effects of the parasitic wasp (see above). This site is situated in an area of relatively high rainfall, which will have a large influence on the population dynamics of the Marsh Fritillary. This factor is also outside of human influence.</p> <p>6) Owner/ occupier objectives</p> <p>The owners/ occupiers of the land typically have an interest in securing some financial/ agricultural benefit from the land. This return could be optimised by the agricultural improvement of the land, e.g., by installing new drainage, fertiliser application, or re-seeding. However, these operations would cause significant long-term damage to the Marsh Fritillary habitat, namely the marshy grassland. Additionally unimproved marshy grasslands that are waterlogged for much of the year are difficult to manage for many landowners, possibly resulting in a mixture of over and under grazing, with a tendency for scrub to spread. Because of the wet nature of some of the ground, some landowners may be reluctant to graze large stock. This factor will be controlled through management agreements and the SSSI legislation. An operational limit is not required.</p> <p>7) Management of surrounding habitats</p> <p>The SAC only includes the core of the Marsh Fritillary habitat (and hence core of the metapopulation). There are likely to be other small areas of habitat outside the SAC boundary which are used by the butterfly only occasionally, but which likely contribute to the long-term success of the metapopulation. Efforts should be made to encourage better management of these areas of land through schemes such as Tir Gofal or through specific grazing projects.</p>
<p><b>Other AA/ HRAs performed on this site</b></p>	<ul style="list-style-type: none"> <li>• Rhondda Cynon Taf County Borough Council's Local Development Plan (2006-2021)</li> <li>• Rhondda Cynon Taf County Borough Council's Habitat Regulations Assessment of the Local Flood Risk Management Strategy, 2013</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (November 2009)</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2015)</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2021)</li> </ul>

**Table 4:** Cardiff Beech Woods: Data Proforma

<b>Cardiff Beech Woods: Data Proforma</b>	
<b>Qualifying Features</b>	<p>Annex I Habitats reason for selection:</p> <ol style="list-style-type: none"> <li>1) Asperulo-Fagetum beech forests (primary reason for site selection)</li> <li>2) Tilio-Acerion forests of slopes, screes, and ravines (priority feature, but not a primary reason for selection)</li> </ol>
<b>Conservation Objectives</b>	<p><b>Vision for feature 1:</b></p> <p>The vision for this feature is for it to be in a favourable conservation status, where all the following conditions are satisfied:</p> <ul style="list-style-type: none"> <li>• At least 85% of the site will continue to be covered by semi-natural broadleaved woodland.</li> <li>• The range of woodland communities within the site will be maintained, including both of the woodland types considered to be of international importance - Asperulo-Fagetum and Tilio Acerion.</li> <li>• At least 95% of canopy forming trees will be locally native species such as beech, ash, and oak.</li> <li>• The tree canopy will not be completely closed; approximately 10% of the canopy will include a dynamic shifting pattern of gaps encouraging natural regeneration of tree species of all ages.</li> <li>• Dead wood, standing and fallen, will be maintained where possible to provide habitat for invertebrates, fungi, and other woodland species.</li> <li>• The ground flora will comprise species typical of lime-rich beech wood including indicators of ancient woodland, such as wood anemone, ramsons and sanicle.</li> <li>• There is little evidence of browsing</li> <li>• Recreational use of the site will continue to be managed so it does not damage the wildlife interest of the site</li> <li>• All factors affecting the achievement of these conditions are under control.</li> </ul> <p><b>Performance indicators for qualifying feature 1:</b></p> <p>Indicators can be found in the 'Core Management Plan (Including Conservation Objectives) for Cardiff Beech Woods Special Area of Conservation (SAC)' produced by CCW.</p>

	<p><b>Vision for feature 2:</b></p> <p>The vision for this feature is for it to be in a favourable conservation status, where all the following conditions are satisfied:</p> <ul style="list-style-type: none"> <li>• At least 85% of the site will continue to be covered by semi-natural broadleaved woodland</li> <li>• The range of woodland communities within the site will be maintained, as for feature 1</li> <li>• At least 95% of canopy forming trees will be locally native species (sycamore included)</li> <li>• The tree canopy will not be completely closed; approximately 10% of the canopy will include a dynamic shifting pattern of gaps encouraging natural regeneration of tree species of all ages.</li> <li>• Dead wood, standing or fallen, will be maintained where possible to provide habitat for invertebrates, fungi, and other woodland species.</li> <li>• The ground flora will comprise species typical of lime-rich beech wood including indicators of ancient woodland, such as wood anemone, ramsons and sanicle.</li> <li>• There is little evidence of browsing</li> <li>• Recreational use of the site will continue to be managed so it does not damage the wildlife interest of the site</li> <li>• All factors affecting the achievement of these conditions are under control.</li> </ul> <p><b>Performance indicators for qualifying feature 2:</b></p> <p>Indicators can be found in the 'Core Management Plan (Including Conservation Objectives) for Cardiff Beech Woods Special Area of Conservation (SAC)' produced by CCW.</p>
<p><b>Component SSSIs</b></p>	<ol style="list-style-type: none"> <li>1) Fforestganol, Tongwynlais a Cwm Nofydd (units 1-5))</li> <li>2) Castell Coch Woodlands and Road Section (units 6-9)</li> <li>3) Garth Wood (units 10-12)</li> </ol> <p>There are 12 management units of which numbers 1, 2, 3, 4, 8, 9 and 10 comprise to form the Cardiff Beech woods SAC. A map showing the management units can be viewed on the CCW website</p>
<p><b>Key Environmental Conditions (factors)</b></p>	<ul style="list-style-type: none"> <li>• To maintain and manage the surrounding woodland- Commercial forestry in the vicinity of Castell Coch may have implications for surface water supply and quality. There are also several active and disused limestone quarries in the area. Garth Wood surrounds Taff's Well Quarry but there are other, smaller quarries in and around all component SSSIs. Quarrying can lead to direct loss of the feature</li> </ul>

<p><b>affecting site integrity)</b></p>	<p>together with indirect impacts from issues such as access. There are also several impacts arising from the restoration at the end of a quarry's life.</p> <ul style="list-style-type: none"> <li>• Manage public access - Management of the recreational use of the woodlands should focus on maintaining the network of public footpaths and access routes. Regular maintenance of the footpaths and bridleways is essential to stop them spreading onto adjacent woodland habitat. By restricting recreational use of the woodlands to certain areas and paths, natural woodland processes can be left to occur away from these areas of recreational use without the need for intervention from a public health and safety perspective.</li> </ul>
<p><b>SAC condition Assessment</b></p>	<p>The sites were monitored in March 2004 to gather the extent or condition of the habitat. The current feature status for the <i>Asperulo-fagetum</i> beech forest is <b>Unfavourable - Unclassified</b> (March 2004).</p> <p>The sites were monitored in February 2004 to gather the extent or condition of the habitats and the species. The current feature status for the <i>Tilio-Acerion</i> forest of slopes, screes and ravines is <b>Unfavourable - Recovering</b> (February 2004).</p>
<p><b>Vulnerabilities</b></p>	<p>1) Recreational Pressure</p> <p>The woodlands, especially Castell Coch and Fforestganol a Chwm Nofydd, experience heavy recreational pressure and certain areas are managed for this purpose. Health and safety considerations are relevant here.</p> <p>2) Health and Safety</p> <p>In addition to general health and safety issues arising from woodland management for conservation purposes, site-specific safety issues need to be addressed by management. Such issues may arise from the presence of old quarry workings, and 'unsafe' trees in vicinity of public footpaths, access routes and car parks etc.</p> <p>3) Atmospheric Pollution</p> <p>The location of the woodland in industrialised South Wales, together with the presence of nearby quarrying and associated activities, means that there is the potential for localised atmospheric pollution.</p> <p>4) Development</p> <p>Its location in the populated South Wales area means that there is considerable development pressure in the vicinity including associated infrastructure on land adjacent to the site. There is the potential for a range of impacts arising from increasing urbanisation.</p> <p>5) Commercial Forestry</p> <p>Commercial forestry in the vicinity of Castell Coch may have implications for surface water supply and quality, and this needs to be kept under review.</p> <p>6) Mineral Extraction</p>

	<p>There are a number of active and disused limestone quarries in the area. Garth Wood surrounds Taff's Well Quarry but there are other, smaller quarries in and around all</p> <p>7) Non-native species</p> <p>The presence of a number of species considered to be non-native e.g., sycamore and Japanese knotweed, is currently under review to determine any detrimental effects on the woodland communities of special interest.</p>
<p><b>Other AA/ HRAs performed on this site</b></p>	<ul style="list-style-type: none"> <li>• AA Screening of the Vale of Glamorgan Local Development Plan Preferred Strategy Dec 07</li> <li>• AA Screening of the Rhondda Cynon Taff County Borough Council's Local Development Plan (2006-2021)</li> <li>• HRA Screening of the County Council of the City and County of Cardiff Local Development Plan Preferred Strategy Sept 2007</li> <li>• Rhondda Cynon Taf County Borough Council's Habitat Regulations Assessment of the Local Flood Risk Management Strategy, 2013</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (November 2009)</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2015)</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2021)</li> </ul>

**Table 5:** Coedydd Nedd a Melte: Data Proforma

<b>Coedydd Nedd a Melte: Data Proforma</b>	
<b>Qualifying Features</b>	<p>Annex I Habitats primary reason for selection:</p> <ol style="list-style-type: none"> <li>1) Old sessile oak woods with Ilex and Blechnum in the British Isles</li> <li>2) Tilio-Acerion forests of slopes, screes and ravines</li> </ol>
<b>Conservation Objectives</b>	<p><b>Vision for Feature 1:</b></p> <p>The vision for this feature is for it to be in a favourable conservation status, where all the following conditions are satisfied:</p> <ul style="list-style-type: none"> <li>• Upland ash woodland will occupy at least 18 ha of the total site area.</li> <li>• The canopy should be predominantly ash and the following trees will be common in the woodland:</li> <li>• Ferns will be common ground flora species.</li> <li>• Although they may be present in the canopy in small quantities, sycamore and beech should not become dominant at the expense of ash.</li> <li>• Introduced invasive species will be absent and any conifers seeding in from adjoining plantations will be removed whilst at the seedling/ sapling stage.</li> <li>• Damage to the ground flora and soil erosion due to public pressure will be at a minimum.</li> <li>• All factors affecting the achievement of these conditions are under control.</li> </ul> <p><b>Performance indicators for Feature 1:</b></p> <p>Indicators can be found in the 'Core Management Plan (Including Conservation Objectives) for Coedydd Nedd a Melte Special Area of Conservation (SAC)' produced by CCW.</p> <p><b>Vision for feature 2:</b></p> <p>The vision for this feature is for it to be in a favourable conservation status, where all the following conditions are satisfied:</p> <ul style="list-style-type: none"> <li>• Sessile oak woodland will occupy at least 175 ha of the total site area.</li> <li>• The canopy should be predominantly oak and locally native trees will be common in the woodland.</li> <li>• Ferns will be common ground flora species.</li> </ul>

	<ul style="list-style-type: none"> <li>Bryophytes will continue to be abundant, and the bryophyte flora will continue to include those western/Atlantic species that mark out this woodland type. A suite of rarer species and species at the edge of their geographical range will continue to be present.</li> <li>Heathy species such as bilberry and common heather <i>Calluna vulgaris</i> will be common in some areas.</li> <li>Introduced invasive species such as rhododendron will be absent and any conifers seeding in from adjoining plantations will be removed whilst at the seedling/sapling stage.</li> <li>Damage to the ground flora and soil erosion due to public pressure will be at a minimum.</li> <li>All factors affecting the achievement of these conditions are under control.</li> </ul> <p><b>Performance indicators for Feature 2:</b></p> <p>Indicators can be found in the 'Core Management Plan (Including Conservation Objectives) for Coedydd Nedd a Melte Special Area of Conservation (SAC)' produced by CCW.</p>
<p><b>Component SSSIs</b></p>	<p>1) Blaen Nedd SSSI (units 1 to 13)</p> <p>2) Dyffrynnoedd Nedd a Mellte, a Moel Penderyn SSSI (units 14 to 29)</p> <p>The two SSSIs above are divided into 29 management units of which numbers 7, 8, 9, 15 to 29 comprise to form the Coedydd Nedd a Mellte SAC.</p>
<p><b>Key Environmental Conditions (factors affecting site integrity)</b></p>	<ul style="list-style-type: none"> <li>To manage grazing - grazing to the extent practiced routinely by the farming community prevents regeneration of woodland and damages the field layer. Cessation of all grazing over a long period, however, may be detrimental to the field layer as these may become shaded out. The ideal may be to mimic the very low level within a natural woodland ecosystem, or to periodically vary grazing pressure.</li> <li>To manage non-native species - there will be low tolerance of non-native species. Although some sycamore will be tolerated, it should not be allowed to become dominant over ash.</li> <li>To maintain/manage the surrounding woodland.</li> </ul> <p>Manage public access - Throughout the site the cover of bare soil or denuded rocks due to footpaths, trampling and grazing and other activities undertaken by visitors (but not including natural landslips, naturally bare ground where leaf litter etc) can be detrimental to the field layers.</p>
<p><b>SAC condition Assessment</b></p>	<p>The conservation status of feature 1 within the site is <b>Unfavourable</b> (2006)</p> <p>The conservation status of feature 2 within the site is <b>Unfavourable</b> (2006)</p>
<p><b>Vulnerabilities</b></p>	<p>1) Air pollution including</p>



	<p>Acidification, photochemical oxidants (Oak woodland), eutrophication and particulate matter.</p> <p>2) Unchecked grazing</p> <p>Stray livestock still gain access in places and could pose a threat to tree and shrub regeneration</p> <p>3) Non-native species</p> <p>Sycamore should not be allowed to become dominant over ash</p> <p>4) Recreational pressure</p> <p>The wooded valleys, particularly within Dyffrynoedd Nedd a Mellte, a Moel Penderyn SSSI ('the Waterfalls' area) are popular with tourists and increasingly so with recreational/outdoor groups. As a result of high levels visitor usage, erosional problems are widespread</p> <p>5) Fire risk</p> <p>During prolonged dry periods</p>
<p><b>Other AA/HRAs performed on this site</b></p>	<ul style="list-style-type: none"> <li>• AA Screening of the Rhondda Cynon Taff County Borough Council's Local Development Plan (2006-2021)</li> <li>• Rhondda Cynon Taf County Borough Council's Local Development Plan (2006-2021)</li> <li>• Rhondda Cynon Taf County Borough Council's Habitat Regulations Assessment of the Local Flood Risk Management Strategy, 2013</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (November 2009)</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2015)</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2021)</li> </ul>

**Table 6:** Cwm Cadlan: Data Proforma

<b>Cwm Cadlan: Data Proforma</b>	
<b>Qualifying Features</b>	<p>Annex I habitats reason for selection:</p> <ol style="list-style-type: none"> <li>1) Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)</li> <li>2) Alkaline fens</li> </ol>
<b>Conservation Objectives</b>	<p><b>Vision for Feature 1:</b></p> <p>The vision for this feature is for it to be in a favourable conservation status, where all the following conditions are satisfied:</p> <ul style="list-style-type: none"> <li>• Fen-meadow will occupy at least 26 ha of a total area of marshy grassland habitat which itself will cover at least 42ha.</li> <li>• The remainder of the site will mainly consist of other semi-natural habitat, including alkaline fen.</li> <li>• Typical fen-meadow plants will be common.</li> <li>• Plants indicating agricultural modification or alteration to hydrology and drying of soils will be absent or present at only low cover.</li> <li>• Although rushes are frequent, the bulkier species will not exceed 33% cover.</li> <li>• Bare ground will generally not exceed 5% cover and vegetation litter 25%.</li> <li>• Dense scrub will be largely absent from the fen-meadow, but it is probably desirable for invertebrates and birds to have a sparse scattering of shrubs or trees.</li> <li>• All factors affecting the achievement of these conditions are under control.</li> </ul> <p><b>Performance Indicators for feature 1:</b></p> <p>Indicators can be found in the 'Core Management Plan (Including Conservation Objectives) for Cwm Cadlan Special Area of Conservation (SAC)' produced by CCW.</p> <p><b>Vision for Feature 2:</b></p> <p>The vision for this feature is for it to be in a favourable conservation status, where all the following conditions are satisfied:</p> <ul style="list-style-type: none"> <li>• Alkaline Fen will occupy about 11 ha or more.</li> </ul>

	<ul style="list-style-type: none"> <li>• The remainder of the site will mainly consist of other semi-natural habitat including fen -meadow.</li> <li>• Typical alkaline fen plants will be common.</li> <li>• Plants indicating agricultural modification or alteration of hydrology and drying of soils will be absent or present only at low cover.</li> <li>• Although rushes are frequent, the bulkier species will not exceed 33% cover.</li> <li>• Bare ground will generally not exceed 5% cover and vegetation litter 10%.</li> <li>• Scrub species will be largely absent from the alkaline fen.</li> <li>• At selected springheads, water should flow in all but the most severe drought conditions.</li> <li>• All factors affecting the achievement of these conditions are under control.</li> </ul> <p><b>Performance Indicators for feature 2:</b></p> <p>Indicators can be found in the 'Core Management Plan (Including Conservation Objectives) for Cwm Cadlan Special Area of Conservation (SAC)' produced by CCW.</p>
<p><b>Component SSSIs</b></p>	<p>1) Cwm Cadlan SSSI</p>
<p><b>Key Environmental Conditions (factors affecting site integrity)</b></p>	<ul style="list-style-type: none"> <li>• Scrub control - Open wetland areas are prone to invasion by alder and willow scrub. Optimum grazing levels should help control spread of scrub, but occasionally active scrub eradication is necessary. Scrub and woodland is also a natural component of such wetland complexes and enhances the site both biologically and visually, therefore older well-established stands will be retained.</li> <li>• Hydrological regime - The marshy grassland communities are strongly influenced by the quantity and base status of the groundwater. Reductions in the quality and quantity of the water in the springs and watercourses feeding the site may lead to a loss of marshy grassland or changes in species composition. Conversely, reduced/ impeded drainage may lead to ground-water stagnation and a different change in species composition, e.g. increased abundance of rushes. Infilling some of the many ditches at the site is likely to lead to re-wetting of some marshy grassland.</li> <li>• Air Quality - Atmospheric deposition at this site has the potential to harm the alkaline fen feature. Dust deposition is likely to be high given the close proximity of Penderyn Quarry, and the absence of a published critical load for this pollutant against this habitat should be taken as indicating lack of impact. Atmospheric Nitrogen deposition in this area is estimated at 21.8 kg N/ha/yr which lies above the lower</li> </ul>

	critical load limit for this pollutant (15-35 kg N / ha / yr). It's likely that the critical load for Nitrogen for M10 forms of alkaline fen is towards the lower end of this range.
<b>SAC condition Assessment</b>	The conservation status of feature 1 within the site is <b>Unfavourable</b> (2007). The conservation status of feature 2 within the site is <b>Unfavourable</b> (2007).
<b>Vulnerabilities</b>	<p>1) Inappropriate grazing regime</p> <p>Without an appropriate grazing regime, the grassland would become rank and eventually turn to scrub and woodland. Any excessive grazing pressure would be expected to increase the frequency and cover of bare ground and agricultural species. Cessation of cattle farming could affect the vegetation, as sheep are more selective grazers.</p> <p>2) Scrub encroachment</p> <p>Woodland and scrub should not encroach further into the unimproved grassland, in particular the communities of highest conservation value (alkaline fen, fen-meadow, and neutral grassland).</p> <p>3) Changes to hydrological regime</p> <p>Activities that effect groundwater level and flow, such as mineral extraction. Dewatering of the adjacent quarry has potential to affect the hydrology of the site. Eutrophication - there has been concern about fertilizer run-off from some adjacent improved fields causing localised nutrient enrichment.</p> <p>4) Atmospheric Pollution</p> <p>Atmospheric deposition at this site has the potential to harm the alkaline fen feature. Dust deposition is likely to be high given the close proximity of Penderyn Quarry, and the absence of a published critical load for this pollutant against this habitat should be taken as indicating lack of impact. Atmospheric Nitrogen deposition in this area is estimated at 21.8 kg N/ha/yr which lies above the lower critical load limit for this pollutant (15-35 kg N / ha / yr). It's likely that the critical load for Nitrogen for M10 forms of alkaline fen is towards the lower end of this range.</p>
<b>Other AA/ HRAs performed on this site</b>	<ul style="list-style-type: none"> <li>• AA Screening of the Rhondda Cynon Taff County Borough Council's Local Development Plan (2006-2021): Preferred Strategy January 2007</li> <li>• Rhondda Cynon Taf County Borough Council's Local Development Plan (2006-2021)</li> <li>• Rhondda Cynon Taf County Borough Council's Habitat Regulations Assessment of the Local Flood Risk Management Strategy, 2013</li> </ul>

	<ul style="list-style-type: none"><li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (November 2009)</li><li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2015)</li><li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2021)</li></ul>
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**Table 7:** Blackmill Woodlands: Data Proforma

<b>Blackmill Woodlands: Data Proforma</b>	
<b>Qualifying Features</b>	Annex I Habitats primary reason for selection:  1) Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles
<b>Conservation Objectives</b>	<p><b>Vision for feature 1</b></p> <p>There is only one feature for the site, and so the vision for this feature is the same as that for the site: At least 90% of the site will be covered by semi-natural broadleaved woodland. The trees will be locally native broadleaved species, with a dominance of oak in the canopy. In the long term, the canopy will include trees of a wide range of age classes, with particular attention given to retaining old or veteran trees and encouraging natural regeneration of tree species, in particular oak. Dead wood, standing and fallen, will be maintained where possible to provide habitat for invertebrates, fungi and other woodland species. The tree canopy will not be completely closed; approximately 10% of the woodland will include a naturally occurring dynamic, shifting pattern of gaps.</p> <p>It is required that the feature be in a favourable conservation status, where all of the conditions set out in the Performance Indicators table are satisfied, and all factors affecting the achievement of these conditions are under control.</p> <p><b>Performance indicators for Feature 1:</b></p> <p>The performance indicators can be found in the 'Core Management Plan (Including Conservation Objectives) for Blackmill Woodlands Special Area of Conservation (SAC)' produced by CCW.</p>
<b>Component SSSIs</b>	Blackmill Woodlands is composed of 2 management units Allt Y Rhiw (Unit 1) and Craig Tal Y Fan (Unit 2), the SAC covers the same area. A map of the management units can be viewed on the CCW website.
<b>Key Environmental Conditions (factors affecting site integrity)</b>	Management of woodland - focus on restoring an uneven age structure and providing increased opportunity for natural regeneration through removal of grazing and gap creation/ maintenance.
<b>SAC condition Assessment</b>	Both woodland blocks failed to have sufficient seedlings and saplings within canopy gaps. To summarise, the feature within this site is in unfavourable condition. However, Unit 1 should be classified as unfavourable recovering and Unit 2 as unfavourable declining (March 2008).

<p><b>Vulnerabilities</b></p>	<p>1) Grazing</p> <p>Sheep grazing has, and continues to have, a major impact on the condition of the site with significant problems as a result of the heavy grazing in the Craig Tal-y-Fan (unit 2) woodland block. Excessive sheep grazing leads to a severely impoverished ground flora and severely inhibits the growth or recruitment of young seedlings and saplings for regeneration. Cessation of all grazing over a long period could be detrimental to the field layer, especially bryophytes, as they can become shaded out. The ideal is either to mimic the very low level within a natural woodland ecosystem, or to periodically vary grazing pressure.</p> <p>2) Air pollution</p> <p>Possible in-combination effect of EA permitted licences, currently under investigation (acidification, eutrophication. photochemical oxidants and particulate matter).</p>
<p><b>Other AA/ HRAs performed on this site</b></p>	<ul style="list-style-type: none"> <li>• HRA Screening of the County Council of the City and County of Cardiff Local Development Plan Preferred Strategy Sept 2007.</li> <li>• AA Screening of the Vale of Glamorgan Local Development Plan Preferred Strategy Dec 07</li> <li>• Rhondda Cynon Taf County Borough Council's Habitat Regulations Assessment of the Local Flood Risk Management Strategy, 2013</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (November 2009)</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2015)</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2021)</li> </ul>



**Table 8:** Severn Estuary SAC: Data Proforma

<b>Severn Estuary SAC: Data Proforma</b>	
<b>Qualifying Features</b>	<p>Annex I Habitats primary reason for selection:</p> <ol style="list-style-type: none"> <li>1) Estuaries</li> <li>2) Mudflats and sandflats not covered by seawater at low tide</li> <li>3) Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</li> </ol> <p>Annex I Habitats qualifying feature:</p> <ul style="list-style-type: none"> <li>• Sandbanks which are slightly covered by sea water all the time</li> <li>• Reefs</li> <li>• Annex II Species primary reason for selection:</li> <li>• Sea lamprey <i>Petromyzon marinus</i></li> <li>• <input type="checkbox"/> River lamprey <i>Lampetra fluviatilis</i></li> <li>• Twaite shad <i>Alosa fallax</i></li> </ul>
<b>Conservation Objectives</b>	<ul style="list-style-type: none"> <li>• That the total extent of the estuary is maintained;</li> <li>• The characteristic physical form (tidal prism/cross sectional area) and flow (tidal regime) of the estuary is maintained;</li> <li>• The characteristic range and relative proportions of sediment sizes and sediment budget within the site is maintained;</li> <li>• The extent, variety and spatial distribution of estuarine habitat communities within the site is maintained;</li> <li>• The extent, variety, spatial distribution and community composition of hard substrate habitats and their notable communities is maintained;</li> <li>• The abundance of the notable estuarine species assemblages is maintained or increased;</li> <li>• The physic-chemical characteristics of the water column support the ecological objectives described above;</li> <li>• Toxic contaminants in water column and sediment are below levels which would pose a risk to the ecological objectives are defined in the "The Severn Estuary / Môr Hafren European Marine Site - Natural England &amp; the Countryside Council for Wales' advice given under</li> </ul>

	<p>Regulation 33(2)(a) of the Conservation (Natural Habitats, &amp;c.) Regulations 1994, as amended”; and</p> <ul style="list-style-type: none"> <li>Airborne nutrient and contaminant loads are below levels which would pose a risk to the ecological objectives described in the document referred to above.</li> </ul>
<b>Component SSSIs</b>	<ol style="list-style-type: none"> <li>Flat Holm SSSI</li> <li>Severn Estuary SSSI</li> <li>Steep Holm SSSI</li> <li>Sully Island SSSI</li> <li>Upper Severn Estuary SSSI</li> <li>Penarth Coast SSSI</li> <li>Bridgwater Bay SSSI</li> </ol>
<b>Key Environmental Conditions (factors affecting site integrity)</b>	<ul style="list-style-type: none"> <li>Hydrodynamic and sedimentary regime - The conservation of the site features is dependent on the tidal regime. The tidal range in the Severn Estuary is the second highest in the world and the scouring of the seabed and strong tidal streams result in natural erosion of the habitats and the presence of high sediment loads.</li> <li>Maintain suitable distance between the site and development - to allow for managed retreat of intertidal habitats and avoid coastal squeeze.</li> <li>Manage public access and activities.</li> </ul>
<b>SAC condition Assessment</b>	<p>Refer to ‘The Severn Estuary / Môr Hafren European Marine Site Natural England &amp; the Countryside Council for Wales’ advice given under Regulation 33(2)(a) of the Conservation (Natural Habitats,&amp;c.) Regulations 1994, as amended.’ (June 2009) for condition statements.</p>
<b>Vulnerabilities</b>	<ol style="list-style-type: none"> <li>Physical loss of supporting habitats through removal</li> </ol> <p>The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly as a consequence of changes to sedimentation processes (e.g. coastal defences) as well as via the effects of smothering by artificial structures (e.g. jetties) or the disposal of spoils. The intertidal mudflats and sandflats and the saltmarsh are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability.</p> <ol style="list-style-type: none"> <li>Contamination by synthetic and/or non-synthetic toxic compounds</li> </ol>

	<p>At the moment there is no evidence to show that this is the case on the Severn Estuary, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. The intertidal mudflats and sandflats and the saltmarsh are currently highly vulnerable to the introduction of synthetic and non-synthetic compounds.</p> <p>3) Damage by abrasion or selective extraction</p> <p>Saltmarsh may be physically damaged from overgrazing or eroded when boats are moored on it and when paths are worn through it to reach moored boats on foot or via vehicles. Currently all supporting habitats are moderately vulnerable to abrasion. Intertidal habitats are highly sensitive to damage by direct and indirect effects of aggregate dredging. The intertidal mudflats and sandflats and the shingle and rocky shore are therefore considered by NE and CCW to be highly vulnerable to selective extraction.</p> <p>4) Changes in nutrient and/ or organic loading</p> <p>Changes in organic or nutrient loading can change the species composition of the plants on the saltmarsh and thus the structure of the sward. Increases in nutrients can also cause excessive algal growth on the mudflats, denying the birds access to their invertebrate prey and changing the invertebrate species composition in the sediment. Though the water quality has been improved in recent years there are still local areas of concern and any increase in nutrient loading should be avoided. At present the intertidal mudflats and sandflats are moderately vulnerable to this category of operation.</p> <p>5) Inappropriate grazing</p> <p>Much of the saltmarsh is managed by grazing and changes in management can alter the availability of prey and suitability of roosting sites. The saltmarsh is currently highly vulnerable to the selective extraction of species.</p>
<p><b>Other AA/ HRAs performed on this site</b></p>	<ul style="list-style-type: none"> <li>• Rhondda Cynon Taf County Borough Council's Habitat Regulations Assessment of the Local Flood Risk Management Strategy, 2013</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (November 2009)</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2015)</li> <li>• Habitats Regulations Assessment of the River Basin Management Plan for the Severn River Basin District (2021)</li> <li>• HRA Screening of the County Council of the City and County of Cardiff Local Development Plan Preferred Strategy Sept 2007.</li> <li>• HRA Screening of the Torfaen Local Development Plan (2006-2021) January 2008.</li> </ul>

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	<ul style="list-style-type: none"><li>• AA Screening of the Vale of Glamorgan Local Development Plan Preferred Strategy Dec 07</li></ul>
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**Table 9:** Severn Estuary SPA: Data Proforma

<b>Severn Estuary SPA: Data Proforma</b>	
<b>Qualifying Features</b>	<p>Article 4.1 Qualification:</p> <p>Over winter the area regularly supports:</p> <ul style="list-style-type: none"> <li>• Bewick’s Swan <i>Cygnus columbianus bewickii</i> 3.9% of the GB population</li> </ul> <p>Article 4.2 Qualification:</p> <p>Over winter the area regularly supports:</p> <ul style="list-style-type: none"> <li>• Gadwall <i>Anas strepera</i> 0.9% of the population</li> <li>• White-fronted Goose <i>Anser albifrons albifrons</i> 0.4% of the population</li> <li>• <input type="checkbox"/> Dunlin <i>Calidris alpina alpina</i> 3.3% of the population</li> <li>• Shelduck <i>Tadorna tadorna</i> 1.1% of the population</li> <li>• <input type="checkbox"/> Redshank <i>Tringa totanus</i> 1.3% of the population</li> </ul> <p>Article 4.2 Qualification: Internationally Important Assemblage of Birds</p> <p>Over winter the area regularly supports:</p> <ul style="list-style-type: none"> <li>• An assemblage of waterfowl</li> </ul>

<p><b>Conservation Objectives</b></p>	<p><b>Interest feature 1: Internationally important population of regularly occurring Annex 1 species: Bewick’s swan</b></p> <p>The interest feature Bewick’s swan will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:</p> <ol style="list-style-type: none"> <li>1) The 5-year peak mean population size for the Bewick’s swan population is no less than 289 individuals (i.e. the 5 year peak mean between 1988/9 - 1992/3)</li> <li>2) The extent of saltmarsh at the Dumbles is maintained</li> <li>3) The extent of intertidal mudflats and sandflats at Frampton Sands, Waveridge Sands and the Noose is maintained</li> <li>4) The extent of vegetation with an effective field size of &gt;6 ha and with unrestricted bird sightlines &gt; 500m at feeding, roosting and refuge sites are maintained</li> <li>5) Greater than 25% cover of suitable soft leaved herbs and grasses in winter season throughout the transitional saltmarsh at the Dumbles is maintained;</li> <li>6) Aggregations of Bewick’s swan at feeding, roosting and refuge sites are not subject to significant disturbance.</li> </ol> <p><b>Interest feature 2: Internationally important population of regularly occurring migratory species: wintering dunlin</b></p> <p>The interest feature dunlin will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:</p> <ol style="list-style-type: none"> <li>1) The 5-year peak mean population size for the wintering dunlin population is no less than 41,683 individuals (i.e. the 5 year peak mean between 1988/9 - 1992/3)</li> <li>2) The extent of saltmarsh is maintained</li> <li>3) The extent of intertidal mudflats and sandflats is maintained</li> <li>4) The extent of shingle and rocky shore is maintained</li> <li>5) The extent of vegetation with a sward height of &lt;10cm is maintained throughout the saltmarsh</li> <li>6) The distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained</li> <li>7) The distribution and abundance of suitable invertebrates in shingle and rocky shore is maintained</li> <li>8) The extent of strandlines is maintained</li> <li>9) Unrestricted bird sightlines of &gt;200m at feeding and roosting sites are maintained</li> <li>10) Aggregations of dunlin at feeding or roosting sites are not subject to significant disturbance</li> </ol> <p><b>Interest feature 3: Internationally important population of regularly occurring migratory species: wintering European white-fronted goose</b></p>
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The interest feature European white-fronted goose will be in favourable condition when, subject to natural processes (Box 1), each of the following conditions are met:

- 1) The 5-year peak mean population size for the wintering European white fronted goose population is no less than 3,002 individuals (i.e., the 5-year peak mean between 1988/9-1992/3)
- 2) The extent of saltmarsh at the Dumbles is maintained
- 3) The extent of intertidal mudflats and sandflats at Frampton Sands, Waveridge Sands and the Noose is maintained
- 4) Greater than 25% cover of suitable soft-leaved herbs and grasses is maintained during the winter on saltmarsh areas
- 5) Unrestricted bird sightlines of >200m at feeding and roosting sites are maintained
- 6) Aggregations of European white-fronted goose at feeding or roosting sites are not subject to significant disturbance.

**Interest feature 4: Internationally important population of regularly occurring migratory species: wintering redshank**

The interest feature redshank will be in favourable condition when, subject to natural processes, each of the following conditions are met:

- 1) The 5-year peak mean population size for the wintering redshank population is no less than 2,013 individuals (ie the 5 year peak mean between 1988/9 - 1992/3)
- 2) The extent of saltmarsh is maintained
- 3) The extent of intertidal mudflats and sandflats is maintained
- 4) The extent of shingle and rocky shore is maintained
- 5) The extent of vegetation with a sward height of <10cm throughout the saltmarsh is maintained
- 6) The distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained
- 7) The distribution and abundance of suitable invertebrates in shingle and rocky shore is maintained
- 8) Strandlines are not subject to significant disturbance
- 9) Unrestricted bird sightlines of >200m at feeding and roosting sites are maintained
- 10) Aggregations of redshank at feeding or roosting sites are not subject to significant disturbance.

**Interest feature 5: Internationally important population of regularly occurring migratory species: wintering shelduck**

The interest feature shelduck will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:



	<ol style="list-style-type: none"> <li>1) The 5-year peak mean population size for the wintering shelduck population is no less than 2,892 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);</li> <li>2) The extent of saltmarsh is maintained</li> <li>3) The extent of intertidal mudflats and sandflats is maintained</li> <li>4) The extent of shingle and rocky shore is maintained</li> <li>5) The distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained</li> <li>6) Unrestricted bird sightlines of &gt;200m at feeding and roosting sites are maintained; aggregations of shelduck at feeding or roosting sites are not subject to significant disturbance.</li> </ol> <p><b>Interest feature 6: Internationally important assemblage of waterfowl</b></p> <p>The interest feature waterfowl assemblage will be considered to be in favourable condition when, subject to natural processes (Box1), each of the following conditions are met:</p> <ol style="list-style-type: none"> <li>1) The 5-year peak mean population size for the waterfowl assemblage is no less than 68,026 individuals (i.e., the 5-year peak mean between 1988/9 - 1992/3)</li> <li>2) The extent of saltmarsh is maintained</li> <li>3) The extent of intertidal mudflats and sandflats is maintained</li> <li>4) The extent of shingle and rocky shore is maintained</li> <li>5) Extent of vegetation of &lt;10cm throughout the saltmarsh is maintained</li> <li>6) The distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained</li> <li>7) The distribution and abundance of suitable invertebrates in shingle and rocky shore is maintained</li> <li>8) Greater than 25% cover of suitable soft leaved herbs and grasses during the winter on saltmarsh areas is maintained</li> <li>9) Strandlines are not subject to significant disturbance</li> <li>10) Unrestricted bird sightlines of &gt;500m at feeding and roosting sites are maintained</li> <li>11) Waterfowl aggregations at feeding or roosting sites are not subject to significant disturbance.</li> </ol>
<p><b>Component SSSIs</b></p>	<ol style="list-style-type: none"> <li>1) Severn Estuary SSSI</li> <li>2) Flat Holm SSSI</li> <li>3) Bridgwater Bay SSSI</li> <li>4) Penarth Coast SSSI</li> <li>5) Steep Holm SSSI</li> <li>6) Sully Island SSSI</li> <li>7) Upper Severn Estuary SSSI</li> </ol>

<p><b>Key Environmental Conditions (factors that maintain site integrity)</b></p>	<p><b>Key supporting habitats for the Annex I species:</b></p> <p>Intertidal mudflats and sandflats:</p> <ul style="list-style-type: none"> <li>Habitat extent - The focal area for the Bewick's swans is the upper Severn Estuary in the vicinity of the New Grounds, Slimbridge area. The mudflats and sandflats exposed as the tide falls where the estuary widens in the upper reaches of the site at Waveridge Sands, Frampton Sands and The Noose are used as safe refuge areas when the birds are disturbed.</li> <li>Unimpeded sightlines at feeding and roosting sites - Bewick's swan require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li> </ul> <p>Saltmarsh communities:</p> <ul style="list-style-type: none"> <li>Habitat extent - The birds feed on the saltmarsh and the transition from saltmarsh to coastal grazing marsh in front of the sea defences in the upper estuary at The Dumbles, where areas of the high marsh are mainly affected only by brackish water during tidal inundation.</li> <li>Vegetation characteristics - Bewick's swan graze on a range of 'soft' meadow grasses such as <i>Agrostis stolonifera</i> and <i>Alopecurus geniculatus</i> found in wet meadows which are outwith the European marine site boundary.</li> <li>Unimpeded sightlines at feeding and roosting sites - Bewick's swan require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li> </ul> <p><b>Key supporting habitats for populations of regularly occurring migratory species and assemblage of waterfowl:</b></p> <p>Intertidal mudflats and sandflats:</p> <ul style="list-style-type: none"> <li>Habitat extent - Intertidal mudflats and sandflats and their communities are important habitats as they provide both roosting and feeding areas. The European white-fronted geese roost at night on estuarine sandbanks and usually fly less than 10km to the daytime feeding grounds. Therefore, conservation of traditional roosting sites is necessary to enable the population to exploit potential feeding habitats.</li> <li>Food availability - Most of the waders and waterfowl within the assemblage including the internationally important regularly occurring migratory birds feed on invertebrates within and on the sediments.</li> </ul>
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	<ul style="list-style-type: none"><li>• Unimpeded sightlines at feeding and roosting sites - Waterfowl require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li></ul> <p>Saltmarsh:</p> <ul style="list-style-type: none"><li>• Habitat extent - Saltmarsh and their communities are important habitats as they provide both roosting and feeding areas. Upper and lower saltmarsh provide important feeding and roosting areas for the internationally important migratory birds throughout the estuary.</li><li>• Food availability - The saltmarshes provide a rich feeding habitat for redshank and shelduck, which feed on invertebrate species in the sediments, such as the mudsnail <i>Hydrobia</i>. The European white-fronted geese graze on a range of saltmarsh grasses and herbs such as common saltmarsh grass <i>Puccinellia maritime</i> and sea barley <i>Hordeum marinum</i>. The birds feed on the saltmarsh and the transition to coastal grazing marsh in front of the sea defences in the upper estuary and particularly at the The Dumbles.</li><li>• Vegetation characteristics - Vegetation of &lt;10 cm is required throughout areas used by roosting waders. This is managed by grazing.</li><li>• Unimpeded sightlines at feeding and roosting sites - Waterfowl require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting. The saltmarshes also have an important function providing a safe haven from the tides that flood the mudflats twice a day. The low-growing dense vegetation provides a suitable roosting habitat for redshank and dunlin, which prefer to roost on areas of short vegetation ensuring good visibility.</li></ul> <p>Shingle and rocky shore:</p> <ul style="list-style-type: none"><li>• Habitat extent - the shingle and rocks in the estuary provide feeding areas for dunlin and redshank and some limited foraging at high tide. It is also provides important roost sites at high tide particularly for the dunlin and redshank. Many of the rocks are off shore and are therefore generally free from human disturbance. These include Guscar Rocks in the upper reaches, Blackstone Rocks at Clevedon and Stert Island in Bridgwater Bay.</li><li>• Food availability - see above.</li><li>• Unimpeded sightlines at feeding and roosting sites - Waterfowl require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li></ul> <p>Wet coastal grazing marsh, improved grassland and open standing waters:</p>
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	<ul style="list-style-type: none"> <li>these supporting habitats lie outside the European marine site boundary but within the SPA. They provide key areas for feeding and roosting for all the migratory species particularly at high tide.</li> </ul> <p><b>Key environmental conditions for the supporting habitats:</b></p> <p>Hydrodynamic and sedimentary regime</p> <ul style="list-style-type: none"> <li>the tidal range in the Severn Estuary is the second highest in the world and the scouring of the seabed and strong tidal streams result in natural erosion of the habitats and the presence of high sediment loads.</li> </ul> <p>Maintain suitable distance between the site and development</p> <ul style="list-style-type: none"> <li>to allow for managed retreat of intertidal habitats and avoid coastal squeeze.</li> </ul> <p><b>Other key conditions:</b></p> <p>Manage/ restrict public access</p> <ul style="list-style-type: none"> <li>at certain times of the year. Significant disturbance attributable to human activities can result in reduced food intake and/or increased energy expenditure.</li> </ul> <p>Maintain levels of prey</p>
<b>SAC condition Assessment</b>	Refer to 'The Severn Estuary / Môr Hafren European Marine Site Natural England & the Countryside Council for Wales' advice given under Regulation 33(2)(a) of the Conservation (Natural Habitats,&c.) Regulations 1994, as amended.' (June 2009) for condition statements.
<b>Vulnerabilities</b>	<u>Internationally important populations of regularly occurring Annex 1 species:</u> <ol style="list-style-type: none"> <li>Physical loss of supporting habitats through removal - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly because of changes to sedimentation processes (e.g., coastal defences) as well as via the effects of smothering by artificial structures (e.g., jetties) or the disposal of spoils. Activities or developments resulting in physical loss of the intertidal supporting habitats are likely to reduce the availability of feeding and roosting habitat and thus be detrimental to the favourable condition of the SPA interest features including the Annex 1 species, Bewick's swan. The intertidal mudflats and sandflats and the saltmarsh are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this</li> </ol>

	<p>leads to a moderate vulnerability.</p> <ol style="list-style-type: none"><li>2) Noise or visual disturbance - Overwintering birds are disturbed by sudden movements and sudden noises. This can displace the birds from their feeding grounds. Disturbance can prevent the birds from feeding and in response they either a) decrease their energy intake at their present (disturbed) feeding site through displacement activity, or b) move to an alternative less favoured feeding site. Such a response affects energy budgets and thus survival. There is intermittent disturbance from both the landward and seaward side of the site. Bewick's swans are mainly affected by disturbance from the landward side and any increase in disturbance should be avoided. At present NE and CCW assess that the Annex 1 species are moderately vulnerable to noise and visual disturbance on the intertidal mudflats and sandflats and highly vulnerable to this category of operation on the saltmarsh.</li><li>3) Contamination by synthetic and/or non-synthetic toxic compounds - Waterfowl are subject to the accumulation of toxins through the food chain or through direct contact with toxic substances when roosting or feeding. Their ability to feed can also be affected by the abundance or change in palatability of their prey caused by toxic contamination. There is no evidence to show that this is the case, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. They also identify Bewick's swans as currently moderately vulnerable to toxic contamination.</li><li>4) Suitability of roosting sites. The saltmarsh is currently highly vulnerable to the selective extraction of species.</li></ol> <p><b>Internationally important waterfowl assemblage including populations of regularly occurring migratory species:</b></p> <ol style="list-style-type: none"><li>1) Physical loss through removal - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly because of changes to sedimentation processes (e.g., coastal defences) as well as via the effects of smothering by artificial structures (e.g., jetties) or the disposal of spoils. Eelgrass beds are being affected by siltation due to changes in sediment movement after construction of the Second Severn Crossing which has resulted in smothering. Activities or developments resulting in physical loss of the intertidal supporting habitats are likely to reduce the availability of food and roosting habitat and thus be detrimental to the favourable condition of the SPA interest features including all the migratory species and waterfowl assemblage. All three supporting habitats are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large</li></ol>
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	<p>areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability.</p> <ol style="list-style-type: none"><li data-bbox="496 409 1337 719">2) Damage by abrasion or selective extraction - Saltmarsh may be physically damaged from overgrazing or eroded when boats are moored on it and when paths are worn through it to reach moored boats on foot or via vehicles. Currently all supporting habitats are moderately vulnerable to abrasion. Intertidal habitats are highly sensitive to damage by direct and indirect effects of aggregate dredging. The intertidal mudflats and sandflats and the shingle and rocky shore are therefore considered by NE and CCW to be highly vulnerable to selective extraction.</li><li data-bbox="496 813 1385 1301">3) Noise or visual disturbance - Overwintering birds are disturbed by sudden movements and sudden noises. This can have the effect of displacing the birds from their feeding grounds. Disturbance can prevent the birds from feeding and in response they either a) decrease their energy intake at their present (disturbed) feeding site through displacement activity, or b) move to an alternative less favoured feeding site. Such a response affects energy budgets and thus survival. There is intermittent disturbance to the internationally important migratory species and the waterfowl assemblage from both the landward and seaward side of the site which has increased in recent years, due to the estuary becoming more populated and the development of all-weather recreational pursuits. All supporting habitats are currently highly vulnerable to noise and visual disturbance.</li><li data-bbox="496 1335 1378 1749">4) Contamination by synthetic and/or non-synthetic toxic compounds - Waterfowl are subject to the accumulation of toxins through the food chain or through direct contact with toxic substances when roosting or feeding. Their ability to feed can also be affected by the abundance or change in palatability of their prey caused by toxic contamination. At the moment there is no evidence to show that this is the case on the Severn Estuary, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. The intertidal mudflats and sandflats and the saltmarsh are currently highly vulnerable to the introduction of synthetic and non-synthetic compounds.</li><li data-bbox="496 1783 1362 1984">5) Changes in nutrient and/or organic loading - Changes in organic or nutrient loading can change the species composition of the plants on the saltmarsh and thus the structure of the sward. Increases in nutrients can also cause excessive algal growth on the mudflats, denying the birds access to their invertebrate prey and changing the invertebrate species composition in the sediment. Though the water</li></ol>
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	<p>quality has been improved in recent years there are still local areas of concern and any increase in nutrient loading should be avoided. At present the intertidal mudflats and sandflats are moderately vulnerable to this category of operation.</p> <p>6) Biological disturbance through the selective extraction of species - Wildfowling is carried out all around the estuary. NE and CCW have not established that it has a detrimental effect on the overall bird populations but state that wildfowling needs to be exercised in a managed and sustainable manner preferably by a British Association of Shooting and Conservation (BASC) affiliated association, applying the BASC wildfowlers code of conduct. Bait digging is also carried out around the estuary. If too large an area is regularly dug over, it can change the availability of prey in the sediment as the area needs a period of recovery and recolonisation. The removal of strandline vegetation by beach cleaning removes an important habitat for invertebrates, as well as many of the invertebrates themselves, reducing the quantity and variety of prey available to the birds. Much of the saltmarsh is managed by grazing and changes in management can alter the availability of prey and suitability of roosting sites. The saltmarsh is currently highly vulnerable to the selective extraction of species.</p>
<p><b>Other AA/ HRAs performed on this site</b></p>	<p>See Table 8</p>

**Table 10:** Severn Estuary Ramsar: Data Proforma

<b>Severn Estuary SAC: Data Proforma</b>	
<b>Qualifying Features</b>	<p><b>Ramsar interest feature 1:</b></p> <p>Estuaries:</p> <ul style="list-style-type: none"> <li>• characteristic physical form and flow, estuarine habitat communities and species assemblages</li> <li>• estuarine habitat communities and species assemblages</li> </ul> <p><b>Ramsar interest feature 2:</b></p> <p>Assemblage of migratory fish species:</p> <ul style="list-style-type: none"> <li>• Sea Lamprey</li> <li>• River Lamprey</li> <li>• Twaite Shad</li> <li>• Allis Shad</li> <li>• Salmon</li> <li>• Sea Trout</li> <li>• Eel</li> </ul> <p><b>Ramsar interest feature 3:</b></p> <ul style="list-style-type: none"> <li>• Bewick's Swan</li> </ul> <p><b>Ramsar interest feature 4:</b></p> <ul style="list-style-type: none"> <li>• European white-fronted goose</li> </ul> <p><b>Ramsar interest feature 5:</b></p> <ul style="list-style-type: none"> <li>• Dunlin</li> </ul> <p><b>Ramsar interest feature 6:</b></p> <ul style="list-style-type: none"> <li>• Redshank</li> </ul>



	<p><b>Ramsar interest feature 7:</b></p> <ul style="list-style-type: none"> <li>• Shelduck</li> </ul> <p><b>Ramsar interest feature 8:</b></p> <ul style="list-style-type: none"> <li>• Gadwall</li> </ul> <p><b>Ramsar interest feature 9:</b></p> <p>Internationally important assemblage of waterfowl. This feature incorporates:</p> <ul style="list-style-type: none"> <li>• waterfowl which contribute to the total peak winter count (criterion 3a)</li> <li>• the above internationally important wintering populations (qualifying under criterion 3c)</li> <li>• the migratory passage species (qualifying under criterion 2c)</li> <li>• the nationally important populations (identified under other notable features of the Ramsar Site citation)</li> </ul>
<p><b>Conservation Objectives</b></p>	<p><b>Interest Feature 1:</b></p> <p>Defined by the relevant SAC objective</p> <p><b>Interest Feature 2:</b></p> <p>The feature will be in favourable condition when, subject to natural processes, each of the following conditions are met:</p> <ol style="list-style-type: none"> <li>1) The migratory passage of both adults and juveniles of the assemblage of migratory fish species through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality</li> <li>2) The size of the populations of the assemblage species in the Severn Estuary and the rivers which drain into it, is at least maintained and is at a level that is sustainable in the long term</li> <li>3) The abundance of prey species forming the principle food resources for the assemblage species within the estuary, is maintained</li> <li>4) Toxic contaminants in the water column<sup>4</sup> and sediment are below levels which would pose a risk to the ecological objectives described above.</li> </ol> <p><b>Interest Feature 3:</b></p> <p>Defined by the relevant SPA objective</p>

	<p><b>Interest Feature 4:</b> Defined by the relevant SPA objective</p> <p><b>Interest Feature 5:</b> Defined by the relevant SPA objective</p> <p><b>Interest Feature 6:</b> Defined by the relevant SPA objective</p> <p><b>Interest Feature 7:</b> Defined by the relevant SPA objective</p> <p><b>Interest Feature 8:</b> Defined by the relevant SPA objective</p> <p><b>Interest Feature 9:</b> Defined by the relevant SPA objective</p>
<p><b>Component SSSIs</b></p>	<ol style="list-style-type: none"> <li>1) Sully Island SSSI</li> <li>2) Steep Holm SSSI</li> <li>3) Bridgwater Bay SSSI</li> <li>4) Flat Holm SSSI</li> <li>5) Severn Estuary SSSI</li> <li>6) Severn Estuary SSSI</li> <li>7) Flat Holm SSSI</li> <li>8) Upper Severn Estuary SSSI</li> <li>9) Bridgwater Bay SSSI</li> <li>10) Penarth Coast SSSI</li> <li>11) Steep Holm SSSI</li> <li>12) Sully Island SSSI</li> </ol>

	13) Upper Severn Estuary SSSI
<p><b>Key Environmental Conditions (factors that maintain site integrity)</b></p>	<p><b>Intertidal mudflats and sandflats:</b></p> <ul style="list-style-type: none"> <li>Habitat extent - The focal area for the Bewick's swans is the upper Severn Estuary in the vicinity of the New Grounds, Slimbridge area. The mudflats and sandflats exposed as the tide falls where the estuary widens in the upper reaches of the site at Waveridge Sands, Frampton Sands and The Noose are used as safe refuge areas when the birds are disturbed.</li> <li>Unimpeded sightlines at feeding and roosting sites - Bewick's swan require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li> </ul> <p><b>Saltmarsh communities:</b></p> <ul style="list-style-type: none"> <li>Habitat extent - The birds feed on the saltmarsh and the transition from saltmarsh to coastal grazing marsh in front of the sea defences in the upper estuary at The Dumbles, where areas of the high marsh are mainly affected only by brackish water during tidal inundation.</li> <li>Vegetation characteristics - Bewick's swan graze on a range of 'soft' meadow grasses such as <i>Agrostis stolonifera</i> and <i>Alopecurus geniculatus</i> found in wet meadows which are out with the European marine site boundary.</li> <li>Unimpeded sightlines at feeding and roosting sites - Bewick's swan require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li> </ul> <p><b>Shingle and rocky shore:</b></p> <ul style="list-style-type: none"> <li>Habitat extent - the shingle and rocks in the estuary provide feeding areas for dunlin and redshank and some limited foraging at high tide. It is also providing important roost sites at high tide particularly for the dunlin and redshank. Many of the rocks are offshore and are therefore generally free from human disturbance. These include Guscar Rocks in the upper reaches, Blackstone Rocks at Clevedon and Stert Island in Bridgwater Bay.</li> <li>Food availability</li> <li>Unimpeded sightlines at feeding and roosting sites - Waterfowl require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li> </ul> <p><b>Wet coastal grazing marsh, improved grassland, and open standing waters</b></p>

	<ul style="list-style-type: none"> <li>• These supporting habitats lie outside the European marine site boundary but within the SPA. They provide key areas for feeding and roosting for all the migratory species particularly at high tide.</li> </ul> <p><b>Hydrodynamic and sedimentary regime</b></p> <ul style="list-style-type: none"> <li>• the tidal range in the Severn Estuary is the second highest in the world and the scouring of the seabed and strong tidal streams result in natural erosion of the habitats and the presence of high sediment loads.</li> </ul> <p><b>Maintain suitable distance between the site and development</b></p> <ul style="list-style-type: none"> <li>• to allow for managed retreat of intertidal habitats and avoid coastal squeeze.</li> </ul> <p><b>Manage/restrict public access</b></p> <ul style="list-style-type: none"> <li>• at certain times of the year. Significant disturbance attributable to human activities can result in reduced food intake and/or increased energy expenditure.</li> </ul> <p><b>Maintain levels of prey</b></p>
<b>Ramsar Condition Assessment</b>	Refer to 'The Severn Estuary / Môr Hafren European Marine Site Natural England & the Countryside Council for Wales' advice given under Regulation 33(2)(a) of the Conservation (Natural Habitats,&c.) Regulations 1994, as amended.' (June 2009) for condition statements.
<b>Vulnerabilities (includes existing pressures and trends)</b>	<p><b>Physical loss of supporting habitats through removal</b></p> <p>The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly because of changes to sedimentation processes (e.g., coastal defences) as well as via the effects of smothering by artificial structures (e.g., jetties) or the disposal of spoils. Activities or developments resulting in physical loss of the intertidal supporting habitats are likely to reduce the availability of feeding and roosting habitats. The intertidal mudflats and sandflats and the saltmarsh are highly sensitive to removal by land reclamation and barrage construction.</p>
<b>HRA/AA Studies undertaken that address this site</b>	See Table 8

## 4. CONCLUSIONS

Table 11 below summarises the European Designated Sites that will be considered in the HRA of RCTs revised Local Strategy.

**Table 11:** Sites included in the HRA of the LFRMS

Name	Designation	EU Code
Blaen Cynon	SAC	UK 0030092
Cardiff Beech Woods	SAC	UK 0030109
Coedydd Nedd a Melte	SAC	UK 0030141
Cwm Cadlan	SAC	UK 0013585
Blackmill Woodlands	SAC	UK 0030090
Severn Estuary suite of sites	SAC, SPA and Ramsar	UK0013030 (SAC) UK9015022 (SPA) UK14006 (Ramsar)

The information found in section 3 will be used to assess the impact the Local Strategy on the sites listed above in Table 11.

## **ANNEX B**

### Review of LFRMS Objectives and Measures

## 1. INTRODUCTION

### 1.1 BACKGROUND

A Habitats Regulations Assessment (HRA) is required by the Conservation of Habitats and Species Regulations (2010) to consider if a plan or project is likely to have a significant effect on a European designated site in regard to its nature conservation interest. This report forms Annex B of the HRA, concluding objectives, and measures of the Local Flood Risk Management Strategy (Local Strategy) that could have an effect on Natura 2000 Sites, requiring further analysis in the Local Strategy HRA.

### 1.2 ABOUT THE LOCAL FLOOD RISK MANAGEMENT STRATEGY

RCTCBC as a Lead Local Flood Authority (LLFA) is required to develop, maintain, apply and monitor a Local Strategy for their particular territory to enable more effective flood risk management.

The Local Strategy aims to address local flood risk (defined as flooding from surface water, groundwater, and ordinary watercourse flooding such as small rivers, ditches, and streams) and the risk associated with climate change. The Local Strategy aims to achieve more effective flood risk management by:

- Ensuring a clear understanding of the risks of flooding, nationally and locally, so that investment in risk management can be prioritised more effectively
- Setting out clear and consistent plans for risk management so that communities and businesses can make informed decisions about the management of the residual risk
- Encouraging innovative management of flood risks, taking account of the needs of communities and the environment
- Forming links between the LFRMS and local spatial planning
- Ensuring that emergency plans and responses to flood incidents are effective and that communities can respond properly to flood warnings
- Helping communities to recover more quickly and effectively after incident.

The Local Strategy report contains objectives for managing local flooding along with measures to achieve these. The roles and responsibilities of those involved in managing the risk of flooding and the functions that may be exercised by them are

stated. The Local Strategy will become publicly available on the RCTCBC website (<http://www.rctcbc.gov.uk>) following consultation with statutory bodies and the public.

The Local Strategy objectives and measures will improve the management of flood risk. It is considered that the overall effect of implementing the measures will be positive for European Designated sites; however, it is possible that in their implementation, there could be direct or indirect negative effects, alone or in combination, on European Designated Sites.



## 2. SCREENING OF OBJECTIVES AND MEASURES THAT COULD HAVE AN EFFECT ON DESIGNATED SITES

### 2.1 OVERVIEW OF ASSESSMENT PROCESS

An initial screening exercise was applied to the Local Strategy, to at a broad level:

- Identify objectives, and measures that, because of their nature, could not have an adverse effect on a European Designated Site
- Identify objectives and measures that are not suitable for assessment
- Identify objectives and measures that are necessary for the conservation management of Natura 2000 sites (these measures do not require assessment under the Habitats Regulations).

The Local Strategy is a high-level document that states measures to achieve objectives. How the measures will be implemented, the location and details of these works however have not yet been developed. For the purpose of this screening, a 'precautionary principle' has been taken, assuming that the works could take place at any reasonable location, time and extent.

An objective or measure is likely to have a significant effect if it can be reasonably predicted to affect conservation objectives of the European Designated Site. These conservation objectives protect the sites features for which the site was designated for. Assessing a 'likely significant effect' does not suggest that there will be such an effect or that the effect is more likely than not.

Table 12 outlines the criteria used to screen objectives and measures of the Local Strategy. In Tables 13 to 14 a score is given to each objective, and measure to indicate the potential effect on European Designated sites. The reduced list of objectives and measures is then further assessed in section 3.0.

**Table 12:** Scoring system for assessing potential effect of Local Strategy on European Designated Sites

Score	Criteria
<b>Category A: Objective/ Measure has no likely effect</b>	
<b>A1</b>	The measure or objective itself will not lead to physical actions/ General policies or statements that only express general intentions or political aspirations/ It will be implemented by measures that are assessed in the following table.
<b>A2</b>	The measure or objective intends to protect the natural environment, including biodiversity.
<b>A3</b>	Whether physical actions will take place, or the location of the physical actions is unknown. Decisions will be made following the consideration of options in lower tier plans, programmes and policies that are subject to further HRAs. Not suitable for this assessment.
<b>Category B: Objective/Measure may have an effect</b>	
<b>B1</b>	The measure or objective could steer physical actions towards or encourage physical actions in, an area that includes a European site or an area where physical actions may indirectly affect a European site.
<b>Category C: Objective/Measure is likely to have an effect</b>	
<b>C1</b>	The measure or objective makes a provision for a proposed physical action that would be likely to have a significant effect on a European site.

## 2.2 LOCAL FLOOD RISK MANAGEMENT STRATEGY OBJECTIVES

**Table 13:** Screening of Objectives for potential impacts on European Designated Sites

<b>LFRMS Objective</b>	<b>Score</b>	<b>Comments</b>	<b>Likely Significant Effect: (Yes-Y/ No-N/ Uncertain-?)</b>
Reduce distress by decreasing the number of people exposed to the risk of flooding	A1	General statements that only express general intentions or political aspirations/ It will be implemented by measures that are assessed in Table 14.	N
Reduce community disruption by reducing the number of residential and commercial properties exposed to the risk of flooding	A1	General statements that only express general intentions or political aspirations/ It will be implemented by measures that are assessed in the following table/ It is unlikely to affect European Designated Sites integrity, as it affects residential and commercial property.	N
Reduce risk to life by reducing the number of people exposed to risk of flooding of significant depth and velocity.	A1	This objective will be implemented by measures that are assessed in the following table.	N
Reduce disruption caused by severe weather to critical infrastructure and essential services	A1/A3	It will be implemented by measures that are assessed in the following table and whether physical action will take place is dependent on other plans and programmes, subject to a further HRA.	N
Improve or not detrimentally affect water quality	A2	The objective is intended to protect the natural environment, including biodiversity, enhancing the natural, environment. Such enhancements are unlikely to affect a European Designated Site detrimentally.	N
Identify opportunities that work with natural	A2/B1	The objective is intended to protect the natural environment, including	?

LFRMS Objective	Score	Comments	Likely Significant Effect: (Yes-Y/ No-N/ Uncertain-?)
processes to reduce the risk of flooding		<p>biodiversity, enhancing the natural, environment. Such enhancements are unlikely to affect a European Designated Site detrimentally.</p> <p>The objective could, however, steer physical actions towards or encourage physical actions in an area that includes a European site or an area where physical actions may indirectly affect a European site.</p>	
Maintain, or where possible, improve the status of Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSIs), Sites of Importance for Nature and Conservation (SINC) sites and contribute to the RCT's 'Action for Nature' (Local Nature Recovery Plan) plan.	A2	<p>The objective is intended to protect the natural environment, including biodiversity, enhancing the natural environment. Such enhancements are unlikely to affect a European Designated Site detrimentally.</p>	N
Improve our understanding of local flood risk in RCT and how this risk may be impacted by climate change in the future.	A2	<p>This measure is intangible and will improve management actions, making them better informed and based on more reliable evidence. Whether physical actions will take place or the location of the physical actions will be made in subsequent plans that are subject to further HRAs</p>	N
Develop effective communication tools to share information and improve individual and community awareness of local flood risks and how they can be managed proactively	A1	<p>The objective itself will not directly result in physical action.</p>	N
Improve individual and communities' ability to	A1	<p>The objective itself will not directly lead to physical action.</p>	N

LFRMS Objective	Score	Comments	Likely Significant Effect: (Yes-Y/ No-N/ Uncertain-?)
prepare, respond and recover to the impacts of flooding			
Ensure that RCT work in partnership with Risk Management Authorities and other stakeholders to holistically manage the risk of flooding	A1	This objective describes ways of working rather than physical action and is therefore not suitable for assessment.	N
Ensure flood risk management functions are considered and delivered in a sustainable way	A3	Whether physical actions will take place, the magnitude or the location of the physical actions is unknown. Decisions will be made following the consideration of options in lower tier plans, programmes and policies that are subject to further HRAs	N
Ensure that investment decisions for flood risk management schemes are prioritised utilising a risk-based approach	A1	The measure is concerned with investment decisions and itself will not lead to physical action.	N

## 2.3 LOCAL FLOOD RISK MANAGEMENT STRATEGY MEASURES

**Table 14:** Screening of Measures for potential impacts on European Designated Sites

<b>LFRMS Measure</b>	<b>Score</b>	<b>Comments</b>	<b>Likely Significant Effect: (Yes-Y/ No-N/ Uncertain-?)</b>
Consultee to the Local Planning Authority	A1	This measure is intangible in its nature and will not lead to physical action.	N
SuDS Approval Body	A1	This measure will not directly lead to physical actions that could potentially affect European Designated Sites. Any potential affects will be assessed though the measure "SuDS Approval Body (SAB) Enforcement" that follows further down this table.	N
Communications	A1	This measure is intangible in its nature and will not lead to physical action.	N
Warning and informing	A1	This measure is intangible in its nature and will not lead to physical action.	N
Emergency Response Plans	A1	This measure is unlikely to lead to physical actions affecting the integrity of European Designated Sites.	N
Community Adaption & Resilience	A1	Physical actions are likely to be situated in or close to residential property i.e. flood doors on properties. Therefore this measure is unlikely to adversely affect European Designated Sites.	N
Partnership Working	A1	This measure will not lead to physical actions; this measure describe ways of working rather than physical actions and is not suitable for assessment.	N
Public Engagement & Consultation	A1	This measure itself will not lead to physical action.	N
Investigation of Flooding Incidents	A1	This measure will not lead to development, it improves our understanding of the environment and involves data gathering.	N
Flood Alleviation Scheme Business Case Development	A2	This measure is intended to increase the sustainability (including social, economic and environmental factors, hence accounting for biodiversity) of development planning.	N

LFRMS Measure	Score	Comments	Likely Significant Effect: (Yes-Y/ No-N/ Uncertain-?)
Strategic Flood Risk Area Assessment	A1	This measure will not directly lead to physical actions. It will however improve management actions, making them better informed and based on more reliable evidence.	N
Flood Risk & Hazard Methodology	A1/A2	This measure will not directly lead to physical action and is intended to protect the environment.	N
Flood Action Plan	A1	It is unlikely that physical actions will arise from this measure that affect European designated sites.	N
Natural Flood Management	B1/ A3	<p>The measure could steer physical actions towards or encourage physical actions in, an area that includes a European site or an area where physical actions may indirectly affect a European site. However, the measure provides no indication of the physical actions that will be involved, including location, magnitude and extent.</p> <p>Any further plans arise as a result of this measure will be subject to a further HRA.</p>	?
Environmental Enhancement & Habitat Creation	B1/ A2/ A3	<p>The measure could steer physical actions towards or encourage physical actions in, an area that includes a European site or an area where physical actions may indirectly affect a European site. The measure provides no indication of the physical actions that will be involved, including location, magnitude, and extent.</p> <p>However, by its nature, the measure intends to enhance the environment, including biodiversity, so adverse effects are unlikely to occur.</p>	?
RMA Coordination	A3	Whether physical actions will take place or the location of the physical actions is unknown. Decisions will be made following the consideration of the full	N

LFRMS Measure	Score	Comments	Likely Significant Effect: (Yes-Y/ No-N/ Uncertain-?)
		plan. Not suitable for assessment at this stage.	
Spatial Mapping of Drainage Assets	A1	This measure will not result in physical action	N
Catchment Asset Management Plans	A1	This measure will not lead directly to physical actions. It will improve our understanding of assets in the region.	N
Asset Register and Records	A1	This measure will not result in physical action. It will improve the information RCTCBC has access to.	N
Designation of Structures	A1	This stops physical action on structures that are beneficial in regard to flood risk management.	N
Land Drainage Consenting & Byelaws	A2	This measure aims to protect the natural environment, including biodiversity. In issuing consents, the Habitats Regulations are considered and if an adverse effect is likely, consent will be denied.	?
Land Drainage Enforcement	A1	This measure will not lead to detrimental physical action, it gives RCT powers to maintain the current condition of watercourses.	N
SuDS Approval Body Enforcement	A1	This measure will not directly lead to physical actions that could potentially affect European Designated Sites. Any potential affects will be assessed though the measure "SuDS Approval Body (SAB) Enforcement" that follows further down this table.	N
Construction of Flood Alleviation Schemes	B1/ A3	The measure or objective could steer physical actions towards or encourage physical actions in, an area that includes a European site or an area where physical actions may indirectly affect a European site. Whether physical actions will take place, or the location of the physical actions is unknown. Decisions will be made following the consideration of options in lower tier plans, programmes and policies that are subject to further HRAs.	?



LFRMS Measure	Score	Comments	Likely Significant Effect: (Yes-Y/ No-N/ Uncertain-?)
Powers of entry upon land	A3	Whether physical actions will take place or the location of the physical actions is unknown. Decisions will be made following the consideration of the full plan. Not suitable for assessment at this stage.	N
Powers to request information and civil sanctions	A1	This measure will not result in physical action. It will improve the information RCTCBC has access to.	N
Cause incidental flooding for purpose of flood risk management	A2	This measure intends to protect the environment, including biodiversity. It is highly unlikely that this activity will take place if it has potential to affect a European Designated Site.	N
Enforcement on Private Surface Water Sewers	A2	This measure intends to protect the natural environment.	N
Monitoring the Reduction of Risk to People and Property	A1	This measure will not lead to physical actions	N
Hydrological Monitoring & Assessment	A1	This measure will not lead to physical actions	N
Monitoring the Delivery of Wider Benefits	A2	The measure is intended to protect the natural environment, including biodiversity.	N

### 3. IDENTIFICATION OF HAZARDS TO EUROPEAN DESIGNATED SITES

This section of the report considers the remaining objectives and measures in further detail to identify the hazards that implementation of the Local Strategy measures could have on European Designated Sites. Table 15 summarises the objectives and measures identified in Section 2.

**Table 15:** Summary of Objectives, and Measures of the LFRMS that have a likely significant effect

Objective/ Measure	
Objective	Identify opportunities that work with natural processes to reduce the risk of flooding
Measure	Natural Flood Management
Measure	Environmental Enhancement & Habitat Creation
Measure	SuDS Approval Body
Measure	Construction of Flood Alleviation Schemes
Measure	Land Drainage Consenting and Byelaws

Table 16 shows the potential hazards each objective and measure could have, affecting the integrity of European Designated Sites.

**Table 16:** Possible Hazards of the LFRMS Objectives and Measures

LFRMS Objective/ Measure	Possible Effects of Measure on Natura 2000 sites
Identify opportunities that work with natural processes to reduce the risk of flooding	<p>Possible effects include: -</p> <ul style="list-style-type: none"> <li>• Creation of, loss of, fragmentation or physical damage/ enhancement to habitats</li> <li>• Changes in the hydro morphology of channels (for example, the wetted perimeter of channels, affecting biodiversity).</li> <li>• Changes in turbidity and velocity of water</li> <li>• water quality (including ecological and physio-chemical aspects)</li> <li>• Visual or noise disturbance</li> <li>• Reduced surface water flooding</li> <li>• Potential increase in the connectivity of water bodies, which could lead to increases of non-native invasive species</li> </ul>
Natural Flood Management	
Environmental Enhancement & Habitat Creation	
SuDS Approval Body (SAB)	<p>Possible effects include: -</p> <ul style="list-style-type: none"> <li>• Reducing run-off rates</li> <li>• Reducing downstream flooding</li> <li>• Encouraging natural groundwater recharge</li> <li>• Reducing pollutant concentrations in stormwater and improving water quality (both chemical and biological)</li> <li>• Creation of habitats for wildlife.</li> <li>• Changes in the physical regime</li> <li>• Noise or visual disturbance</li> <li>• Changes to turbidity</li> </ul>
Construction of Flood Alleviation Schemes	<p>Possible effects include: -</p> <ul style="list-style-type: none"> <li>• Changes in water levels</li> <li>• Changes in flow velocity</li> <li>• Changes to the physical regime</li> <li>• Loss of, fragmentation or physical damage to habitats</li> <li>• Changes in the physical regime</li> <li>• Changes in turbidity</li> <li>• Simplification of habitats/ communities</li> <li>• Visual or Noise disturbance</li> <li>• Potential changes to water chemistry</li> <li>• Killing/injury or removal of fauna</li> </ul>

<p>Land Drainage Consenting and Byelaws</p>	<p>Possible effects include: -</p> <ul style="list-style-type: none"><li>• Creation of, loss of, fragmentation or physical damage/ enhancement to habitats</li><li>• Changes in the hydro morphology of channels (for example, the wetted perimeter of channels, affecting biodiversity).</li><li>• Changes in turbidity and velocity of water</li><li>• water quality (including ecological and physio-chemical aspects)</li><li>• Reduced surface water flooding</li><li>• Potential increase in the connectivity of water bodies, which could lead to increases of non-native invasive species</li><li>• Encouraging natural groundwater recharge</li><li>• Improving water quality</li><li>• Creation of habitats for wildlife.</li></ul>
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## 4. CONCLUSIONS

Many of the measures and objectives of the Local Strategy could affect the integrity of European Designated Sites. However, at this stage, there is insufficient detail on the physical works that will arise from the Strategy.

## **ANNEX C**

In Combination Assessment with other Plans, Policies and Programmes

## 1. INTRODUCTION

### 1.1 BACKGROUND

A Habitats Regulations Assessment (HRA) is required by the Conservation of Habitats and Species Regulations (2017) to consider if a plan or project is likely to have a significant effect on a European Designated Site regarding its nature conservation interest. This report forms Annex C of the HRA, identifying the effects of the Local Flood Risk Management Strategy (Local Strategy) in combination with existing Plans, Programmes and Policies (PPPs).

### 1.2 ABOUT THE LOCAL FLOOD RISK MANAGEMENT STRATEGY

RCTCBC as a Lead Local Flood Authority (LLFA) is required to develop, maintain, apply, and monitor a Local Strategy for their territory to enable more effective flood risk management.

The Local Strategy aims to address local flood risk (defined as flooding from surface water, groundwater, and ordinary watercourse flooding such as small rivers, ditches and streams) and the risk associated with climate change. The Local Strategy aims to achieve more effective flood risk management by:

- Ensuring a clear understanding of the risks of flooding, nationally and locally, so that investment in risk management can be prioritised more effectively
- Setting out clear and consistent plans for risk management so that communities and businesses can make informed decisions about the management of the residual risk
- Encouraging innovative management of flood risks, taking account of the needs of communities and the environment
- Forming links between the Local Strategy and local spatial planning
- Ensuring that emergency plans and responses to flood incidents are effective and that communities can respond properly to flood warnings
- Helping communities to recover more quickly and effectively after incident.



The Local Strategy report contains objectives for managing local flooding along with measures to achieve these. The roles and responsibilities of those involved in managing the risk of flooding and the functions that may be exercised by them are stated. The Local Strategy will become publicly available on the RCTCBC website (<http://www.rctcbc.gov.uk>) following consultation with statutory bodies and the public.

The Local Strategy objectives and measures will improve the management of flood risk. It is considered that the overall effect of implementing the measures will be positive for European Designated sites; however, it is possible that in their implementation, there could be direct or indirect negative effects in combination with other PPPs on European Designated Sites.

## 2. IDENTIFICATION OF OTHER PLANS, PROGRAMMES AND POLICES

### 2.1 OVERVIEW OF ASSESSMENT PROCESS

Due to the wide range of PPPs that may affect European Designated Sites within the plan area and requirement of location specific information to acquire definitive conclusions, a reasonable approach to the in-combination assessment has taken. To ensure this in combination assessment doesn't duplicate work already carried out in the Strategic Environmental Assessment (SEA) and is concentrated on European Designated Sites, only PPPs that have a significant interaction with the Local Strategy regarding biodiversity, flora and fauna have been considered.

A more detailed and holistic analysis of relevant PPPs to the Local Strategy can be found in 'Annex A: Plans and Programmes' of the Local Strategy SEA.

### 2.2 INTERNATIONAL PLANS, PROGRAMMES AND POLICES

Table 17 below lists the International PPPs relevant to the Local Strategy regarding biodiversity, flora, and fauna.

**Table 17:** International Plans Identified in the SEA as Having Significant Interactions for Biodiversity, Flora and Fauna

<b>International Plans/Programmes</b>
EU Biodiversity Strategy 1998
EU Birds Directive 2009/47/EC on the conservation of wild birds
EU Habitats Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora
Ramsar Convention on wetlands of international importance 1971
EU Water Framework Directive 2000/60/EC on community action in the field of water policy

## 2.3 NATIONAL PLANS, PROGRAMMES AND POLICES

Table 18 below lists the National PPPs relevant to the Local Strategy regarding biodiversity, flora, and fauna.

**Table 18:** National Plans Identified in the SEA as Having Significant Interactions for Biodiversity, Flora, and Fauna

National Plans/ Programmes
Environment Act 1995
Wildlife and Countryside Act 1981 (As amended)
NERC Act 2006
Salmon and Freshwater Fisheries Act 1975
The Flood and Water Management Act 2010
Countryside and Rights of Way Act 2000
Land Drainage Act 1991
The Water Act 2003
Water Resources Act 1991 (Amended 2009)
The Water Environment (England and Wales) Regulations 2003
WAG: Environment Strategy for Wales 2006
WAG: Natural Environmental Framework: 'A living Wales - a new framework for our environment, our countryside and our seas'
Climate Change Strategy for Wales, 2010
Conservation of Habitats and Species Regulations 2017
Technical Advice Note TAN15: Development and Flood Risk 2004
TAN 5: Nature Conservation and Planning 2009
The Water Environment (England and Wales) Regulations 2003
The Eels (England and Wales) Regulations 2009
Planning Policy Wales, Edition 4, 2011

## 2.4 SUB-NATIONAL PLANS, PROGRAMMES AND POLICES

Table 19 below lists the sub-national PPPs relevant to the Local Strategy regarding biodiversity, flora, and fauna.

**Table 19:** Sub- national Plans Identified in the SEA as Having Significant Interactions for Biodiversity, Flora, and Fauna

Sub-National Plans/Programmes
Taff and Ely Salmon Action Plan Dec 2003
Eel Management plans for the United Kingdom (Severn River Basin District) March 2010

## 2.5 LOCAL PLANS, PROGRAMMES AND POLICES

Table 20 below lists the local PPPs relevant to the Local Strategy regarding biodiversity, flora, and fauna.

**Table 20:** Local Plans Identified in the SEA as Having Significant Interactions for Biodiversity, Flora, and Fauna

Plans/ Programmes
Action for Nature: A Local Biodiversity Action Plan for Rhondda Cynon Taf (LBAP)
RCT Sites of Importance for Nature Conservation

### **3. IDENTIFICATION OF HAZARDS TO EUROPEAN DESIGNATED SITES**

#### **3.1 INTERACTION OF INDIVIDUAL MEASURES WITHIN THE LOCAL STRATEGY**

There is a risk of possible objectives and measures in Local Strategy having a detrimental effect on the conservation objectives of European Designated Sites when acting in combination with each other. The Local Strategy does not detail the measures in terms of location, extent, and time. Therefore, the objectives and measures can be implemented at a location, time and extent that will not have a significant effect on any European Designated Site.

#### **3.2 IN-COMBINATION ASSESSMENT WITH OTHER PLANS, POLICES AND PROGRAMMES**

Tables 21 to 24 list and describe the interactions of the plans identified in the SEA as having significant interactions for biodiversity, flora, and fauna.

**Table 21:** In-combination assessment of International Plans, Policies and Programmes

Plan/ Programme	Description of Interaction
EU Biodiversity Strategy 1998	<p>This strategy lays down a general framework for developing Community policies and instruments to fulfil the Community's obligations under the Rio de Janeiro Convention on Biological Diversity. It is developed around four major themes, with specific objectives being determined and implemented for each by means of action plans.</p> <p>The Local Strategy will reinforce the objectives of the EU Biodiversity Strategy.</p>
EU Birds Directive 2009/47/EC on the conservation of wild birds	<p>The objectives of the Birds Directive include providing a framework for the conservation, protection, control and management of wild birds. The Local Strategy should avoid having a detrimental impact on sites indicated within the Directive.</p>
EU Habitats Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora	<p>The principal aim of the Habitats Directive is to promote the maintenance of biodiversity by requiring Member States to maintain or restore natural habitats and species at an appropriate conservation status as well as introducing habitat and species protection.</p> <p>The Local Strategy should avoid having a detrimental impact on sites indicated within the Directive.</p>
EU Water Framework Directive <a href="#">2000/60/EC of on the establishment a framework for the Community action in the field of water policy</a> "	<p>The Local Strategy should avoid compromising the objectives of the WFD, and where possible, explore options that complement the Directive.</p>
Ramsar Convention on wetlands of international importance 1971	<p>The Ramsar Convention's broad aims are to halt the worldwide loss of wetlands and to conserve, through wise use and management, those that remain. The Local Strategy will not adversely affect designated Ramsar Sites.</p>

**Table 22:** In-combination assessment of National Plans, Policies and Programmes

Plan/Programme	Description of Interaction
<p>TAN 5: Nature Conservation and Planning 2009</p>	<p>TAN 5 provides advice for local planning authorities on:</p> <ul style="list-style-type: none"> <li>• The key principles of positive planning for nature conservation;</li> <li>• Nature conservation and Local Development Plans;</li> <li>• Nature conservation in development management procedures;</li> <li>• Development affecting protected internationally and nationally designated sites and habitats; and</li> <li>• Development affecting protected and priority habitats and species</li> </ul> <p>This, in combination with the Local Strategy will have a positive effect on European Designated Sites.</p>
<p>WAG: Environment Strategy for Wales 2006</p>	<p>The Environment Strategy is a long term strategy for the environment of Wales, setting the strategic direction for the following 20 years after its publication. It provides the framework within which to achieve our vision for the environment of Wales. The Strategy has five main environmental themes:</p> <ul style="list-style-type: none"> <li>• Addressing climate change – covers climate change mitigation and adaptation;</li> <li>• Sustainable resource use – covers material consumption and waste, water, soils, minerals and aggregates;</li> <li>• Distinctive biodiversity, landscapes and seascapes – covers biodiversity, the marine environment, landscapes and seascapes and their historic component;</li> <li>• Our local environment – covers the built environment and access to green space, environmental nuisances, walkability in urban areas and access to the countryside and coast, and flood risk management; and</li> <li>• Environmental hazards – covers pollution and chemicals and radioactivity.</li> </ul> <p>The Environment Strategy and the Local Strategy will reinforce each other aims in regards to European Designated Sites; to ensure no adverse</p>

	effect on the conservation objectives of these sites.
WAG: Natural Environmental Framework: 'A living Wales - a new framework for our environment, our countryside and our seas'	<p>The Living Wales Programme consists of the following work streams:</p> <ul style="list-style-type: none"> <li>A. Ecosystem Health</li> <li>B. Valuing Ecosystems</li> <li>C. Geographical Information Systems</li> <li>D. Regulatory and Management Approaches</li> <li>E. Refreshing Partnership Mechanisms</li> </ul> <p>It aims to improve and expand ecosystems. This will have a positive interaction with the LFRMS.</p>
The Eels (England and Wales) Regulations 2009	<p>The Eels Regulations require Eel Management Plans to set out how to improve eel habitat, reduce obstacles to migration and regulate eel fishing. The Local Strategy will comply with the Eels Regulations.</p>
Wildlife and Countryside Act 1981 (As amended)	<p>The Wildlife and Countryside Act 1981 (as amended) is the principle mechanism for the legislative protection of wildlife in Wales. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention') and the European Union Directives on the Conservation of Wild Birds (79/409/EEC) and Natural Habitats and Wild Fauna and Flora (92/43/FFC) are implemented.</p> <p>The Wildlife and Countryside Act is divided into four parts. Part I is concerned with the protection of wildlife, Part II relates to the countryside and national parks (and the designation of protected areas), Part III covers public rights of way and Part IV deals with miscellaneous provisions of the Act.</p> <p>The Local Strategy will comply with the Wildlife and Countryside Act, and will have a positive interaction with relevant parts of the Act, including parts concerning European Designated Sites.</p>



<p>Environment Act 1995</p>	<p>The Environment Act 1995 updates much of the earlier legislation on the areas that it extends to. The Act consists of 5 parts:</p> <ul style="list-style-type: none"> <li>• Part 1 the Environment Agency and the Scottish Environmental Protection Agency,</li> <li>• Part II Contaminated Land and Abandoned Mines,</li> <li>• Part III National Parks,</li> <li>• Part IV Air Quality,</li> <li>• Part V Miscellaneous, General and Supplemental Provisions (e.g. waste, mineral planning permissions, hedgerows, drainage, fisheries etc.).</li> </ul> <p>This Act in combination with the Local Strategy will not have a negative effect on European Designated Sites.</p>
<p>NERC Act 2006</p>	<p>Section 40(1) of the Natural Environment and Rural Communities Act 2006 ("the NERC Act") places a duty on every public authority, in exercising its functions, to "have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity". The duty affects all public authorities.</p> <p>Section 42 of the NERC Act requires the National Assembly for Wales in consultation with The Countryside Council for Wales to publish, review, revise and act on lists of organisms of principal importance in Wales. This list is known as the Section 42 (S42) list of species and habitats of principal importance in Wales.</p> <p>The NERC Act in combination with the Local Strategy will have a positive effect on European Designated Sites.</p>
<p>Countryside and Rights of Way Act 2000</p>	<p>The 'CROW' Act, containing five Parts and 16 Schedules, provides for public access on foot to certain types of land, amends the law relating to public rights of way, increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation, and provides for better</p>

	<p>management of Areas of Outstanding Natural Beauty (AONB).</p> <p>The CROW Act in combination with the Local Strategy will have a positive effect of European Designated Sites.</p>
Salmon and Freshwater Fisheries Act 1975	<p>This Act is concerned with the management and regulation of fishing. The Local Strategy will comply with this Act, resulting in no adverse effect on European Designated Sites.</p>
Conservation of Habitats and Species Regulations 2017	<p>The Conservation of Habitats and Species Regulations 2017 (which are the principal means by which the Habitats Directive is transposed in England and Wales) update the legislation and consolidate all the many amendments which have been made to the regulations since they were first made in 1994.</p> <p>The Local Strategy in combination with these regulations will have a positive effect on European Designated Sites.</p>
The Water Environment (England and Wales) Regulations 2003	<p>These regulations implement the Water Framework Directive in England and Wales.</p> <p>The Local Strategy, in combination with the Water Environment Regulations will have a positive effect on European Designated Sites.</p>
The Flood and Water Management Act (2010)	<p>The Flood and Water Management Act sets out the requirement and scope for Local Flood Risk Management Strategies, essentially acting as the overarching driver for Local Flood Risk Management Strategies. Both the National Strategy and the Local Strategy have been subject to a HRA to ensure no detrimental affect on a European Designated Sites.</p>
Land Drainage Act 1991	<p>The Land Drainage Act gives riparian owners both rights and responsibilities, if you own land or property adjacent to a watercourse, the legislation will apply to you.</p> <p>The Local Strategy, in combination with the Land Drainage Act will have a positive effect on European Designated Sites.</p>
The Water Act 2003	<p>The Water Act 2003 aims to increase environmental protection and ensure the</p>

	<p>sustainable use of water resources. This will have a positive effect on European Designated Sites.</p>
The Water Resources Act 1991	<p>The Water Resources Act 1991 (WRA) is an Act of the Parliament of the United Kingdom that regulates water resources, water quality and pollution, and flood defence.</p> <p>The Water Resources Act 1991 in combination with the Local Strategy will have a positive effect on European Designated Sites.</p>
Climate Change Strategy for Wales, 2010	<p>The Climate Strategy for Wales, 2010 aims to reduce greenhouse gas emissions and enable effective adaptation in Wales.</p> <p>The Local Strategy in combination with the Climate Strategy for Wales 2010 will have a positive effect on European Designated Sites.</p>
TAN15: Development and Flood Risk 2004	<p>This TAN provides technical guidance which supplements the policies set out in Planning Policy Wales (PPW) in relation to flooding and coastal erosion. It provides a framework within which the flood risks arising from rivers, the sea and surface water, and the risk of coastal erosion can be assessed. It also provides advice on the consequences of the risks and adapting to and living with flood risk.</p> <p>This, in combination with the Local Strategy will have a positive effect on European Designated Sites.</p>
The Water Environment (England and Wales) Regulations 2003	<p>The Water Environment (England and Wales) Regulations 2003 provide specific powers for the designation of transitional and coastal <b>waters</b> where shellfish are harvested to contribute to a high-quality shellfish product for human consumption and to place requirements regarding the monitoring of any designated waters.</p> <p>This, in combination with the Local Strategy will have a positive effect on European Designated Sites.</p>
Planning Policy Wales, Edition 4, 2011	<p>Planning Policy Wales, Edition 4, 2011 sets out the current land use planning policy for Wales. It provides the policy framework for the effective</p>

	<p>preparation of local planning authorities' development plans.</p> <p>This, in combination with the Local Strategy will have a positive effect on European Designated Sites.</p>
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**Table 23:** In-combination assessment of sub-national Plans, Policies and Programmes

Plan/Programme	Description of Interaction
Taff and Ely Salmon Action Plan Dec 2003	<p>The Action Plan has four objectives:</p> <ul style="list-style-type: none"> <li>(i) Optimise the number of salmon returning to home-water fisheries;</li> <li>(ii) Maintain and improve fitness and diversity of salmon stocks;</li> <li>(iii) Optimise the total economic value of surplus stocks; and</li> <li>(iv) Ensure beneficiaries meet necessary costs.</li> </ul> <p>The Local Strategy will adhere to applicable actions in the plan and will have no negative effect on European Designated Sites in combination with this plan.</p>
Eel Management plans for the United Kingdom (Severn River Basin District) March 2010	<p>The Eel Management Plan for the Severn River Basin District aims to describe the current status of eel populations, assess compliance with the target set out in Council Regulation No 1100/2007, and detail management measures to increase silver eel escapement. This will contribute to the recovery of the stock of European eel.</p> <p>The Local Strategy will adhere to applicable actions in the plan and will have no negative effect on European Designated Sites in combination with this plan.</p>

**Table 24:** In-combination assessment of Local Plans, Policies and Programmes

Plan/Programme	Description of Interaction
<p>Action for Nature: A Local Biodiversity Action Plan for Rhondda Cynon Taf (January, 2008)</p>	<p>Action for Nature is a plan to conserve our wildlife sites and species. The Plan includes actions to:</p> <ul style="list-style-type: none"> <li>• Raise awareness of wildlife and its importance in Rhondda Cynon Taff;</li> <li>• Recording and monitoring wildlife;</li> <li>• Protecting sites of wildlife value; and</li> <li>• Managing land and buildings for wildlife.</li> </ul> <p>The Local Strategy will aim to enhance biodiversity where possible, reinforcing the Local Action Plan and having a positive interaction with European Designated Sites.</p>
<p>RCT Sites of Importance for Nature Conservation</p>	<p>Sites of Importance for Nature Conservation (SINCs) are planning designations used by RCT Council to identify non-statutory sites of County Borough nature conservation importance.</p> <p>The Local Strategy aim to protect sites of importance for nature conservation where possible having a possible interaction with European Designated Sites.</p>

## 4. CONCLUSIONS

The risk of negative effects in combination is very low as the measures in the Local Strategy are intended to maintain or improve the status of European Designated Sites, to improve or detrimentally effect water quality and where possible, to improve naturalness.

At this high-tier level, no PPPs have been identified to have a negative effect in combination with the Local Strategy. It is not appropriate to consider the effects of PPPs at each European site as there is insufficient information on the location of works to arise from the Local Strategy.

The information considered in this in combination assessment may help inform Habitats Regulations assessments of individual measures undertaken at later plan, project, or permission stages, however later assessments will require their own in combination assessments.