



# LOCAL DEVELOPMENT PLAN

# APPROPRIATE ASSESSMENT SCREENING REPORT



December 2007

# **HABITATS REGULATION ASSESSMENT OF THE VALE OF GLAMORGAN LOCAL DEVELOPMENT PLAN DRAFT PREFERRED STRATEGY**

## **SCREENING REPORT**

**December 2007**

### **Non-technical summary**

This document is the Stage 1 Screening Report for the Vale of Glamorgan Local Development Plan 2011 – 2026 (LDP). It considers whether the LDP either alone or in combination with other plans and projects is likely to have a significant effect on a European site. This report considers the emerging Vale of Glamorgan Draft Preferred Strategy. A separate regional study is currently being progressed by the South East Wales Strategic Planning Group, which will consider the cumulative in-combination effects of other LDPs currently being progressed.

European sites are Special Protection Areas (SPA) classified under the EC Birds Directive 1979, candidate Special Areas of Conservation (cSAC) and Special Areas of Conservation (SAC) designated under the Habitats Directive 1992. As a matter of policy the Welsh Assembly Government (WAG) expects public authorities to treat all Ramsar sites, and potential SPAs (pSPA), in Wales as if they are European sites for the purpose of considering development proposals that may affect them.

Draft guidance on undertaking Habitats Regulations Assessment in Wales has been prepared by the Welsh Assembly Government and David Tyldesley and Associates (October 2006) as an Annex to Technical Advice Note 5 Nature Conservation and Planning (2006). This guidance has been considered in the preparation of this report.

The Dunraven SAC is located within the Vale of Glamorgan and its eastern boundary to the north of Lavernock Point is shared with the south western extremity of the Severn Estuary SPA/cSAC/RAMSAR and immediately to the west of the Vale boundary is the Kenfig SAC in the County Borough of Bridgend. Other European sites within 15 kilometres of the local authority boundary that have been considered in this report as they could potentially be affected by the LDP are Cefn Cribwr Grasslands SAC, Blackmill Woodlands SAC and Cardiff Beech Woods SAC.

## **Conclusion**

The Habitats Regulations Assessment Screening for the Vale of Glamorgan LDP Draft Preferred Strategy has identified the potential for the Strategy to have a negative impact on 2 of the 6 European Sites identified within or in close proximity to the Vale of Glamorgan namely, the Severn Estuary SPA/cSAC/RAMSAR and the Kenfig SAC. In addition, it is concluded that a precautionary approach be undertaken in respect of the other 4 sites and that further investigations be undertaken.

It is therefore recommended that an Appropriate Assessment is undertaken to fully ascertain the effect of the LDP on the integrity of the sites identified.

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## 1. INTRODUCTION

- 1.1 European Union Community Council Directive 92/43 on the Conservation of Natural Habitats and Wild Flora and Fauna (EC Habitats Directive) was adopted in May 1992 and seeks to protect the most seriously threatened habitats and species across Europe. The Directive complements the Birds Directive (79/409/EEC) adopted in 1979 and at the heart of both is the creation of a network of protected sites called **Natura 2000** or **European Sites**. The Natura 2000 sites are designed to form an ecologically coherent network of designated sites across the whole of Europe.
- 1.2 European sites are Special Protection Areas (SPA) classified under the EC Birds Directive 1979, candidate Special Areas of Conservation (cSAC), and designated under the EC Habitats Directive 1992. As a matter of policy the Welsh Assembly Government also expects public authorities in Wales to treat Ramsar sites, and potential SPAs, (pSPA) as if they are European sites for the purpose of considering development proposals that may affect them Appendix 1 provides a short description of each designation and outlines their purpose.
- 1.3 Articles 6(3) and 6(4) of the Habitats Directive sets out the requirement for the Appropriate Assessment of plans or projects affecting Natura 2000 sites. Article 6(3) states that:
- “ Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site’s conservation objectives...”*
- 1.4 In the UK the Habitats Directive has been transposed into national laws by means of the Conservation (Natural Habitats, & c.) Regulations 1994 (as amended) and following a European Court of Justice ruling in October 2005 updated by The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007 which now requires the application of Appropriate Assessment (AA) to all land use plans (section 85A – E).

## **2. WHAT IS HABITATS REGULATION ASSESSMENT (HRA)?**

2.1 HRA is used to describe the application of Part IVa of The Conservation (Natural Habitats, &c.)(Amendments)(England and Wales) Regulations 2007.

2.2 Draft guidance on undertaking HRA in Wales has been prepared by David Tyldesley and Associates and the Welsh Assembly Government (WAG) “The Assessment of Development Plans in Wales Under the Provisions of the Habitats Regulations” (October 2006) as an annex to Draft Technical Advice Note 5: Nature Conservation and Planning (2006). Appendix 2 details the Application of Regulation 85 of the Habitats Regulations to Development Plans as included within the WAG Guidance.

2.3 HRA covers:

- Determining the likely significant effects of a development plan on European sites and, if applicable;
- Scoping what needs “Appropriate Assessment (AA)” and how it will be undertaken.
- Undertaking the AA
- Applying a “site integrity test” and determining whether development plans or elements within them have no alternative solutions and there are imperative reasons of over-riding public interest.

2.4 The WAG guidance advises that HRA should be an iterative process that should be revisited at each stage of the plan process depending upon the nature and scale of the changes at each stage of a plan’s development. Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) are also iterative processes in the production of a development plan. However, it is advised that HRA should not be incorporated into SA or SEA but should run in parallel with these processes.

- 2.5 The purpose of AA is to determine whether or not significant effects are likely to result from a plan or programme that will affect the integrity of a European Site and to suggest ways in which they could be avoided. The assessment is carried out solely in respect of the 'conservation objectives' for which a European site has been designated and its integrity in relation to its ability to support those objectives.
- 2.6 The draft guidance has been considered in the production of this report.

### **3. WHAT CONSTITUTES A SIGNIFICANT EFFECT ON A EUROPEAN SITE?**

- 3.1 The planning authority must consider whether the development plan is likely to have a significant effect on any European site. In this context '**likely**' means readily foreseeable and not merely a fanciful possibility, and '**significant**' means not trivial or inconsequential but an effect that is potentially relevant to the site's conservation objectives. Any effect which would compromise the functioning and viability of a site and prevent it from sustaining those interest features for which it was designated in a favourable condition (e.g. as defined by conservation objectives or in favourable condition tables), would constitute a significant effect.

### **4. METHODOLOGY**

- 4.1 Part 2 of the draft WAG guidance provides guidance on the procedures required by the Habitats Regulations and on a methodology for undertaking the various stages in the HRA. The following methodology was adopted in undertaking this screening report.

#### **Stage 1: Identification of Natura 2000 sites.**

International sites within or in close proximity (<15Km) of the Vale of Glamorgan were identified.

#### **Stage 2: Compilation of Site Information.**

Information was obtained for each European site identified including details of operation and activities that could affect the conservation status of the designated site.

### **Stage 3: Policies Review.**

A review was undertaken of the Draft Preferred Strategy and its likely impact upon the European Sites identified.

### **Stage 4: In combination effects.**

Other plans and programmes were considered that might, in combination with the Vale of Glamorgan Draft Preferred Strategy, have the potential to adversely impact upon the European Sites identified.

### **Stage 5: Assessment of likely significant effects.**

The likely effects of the Draft Preferred Strategy on the European sites identified were considered.

## **5. CONSULTATION**

- 5.1 Relevant information on European sites was obtained from the Countryside Council for Wales (CCW) as well as from the Joint Nature Conservancy Council and other web pages. Formal consultation with CCW and other relevant consultees will follow consultation on the Draft Preferred Strategy in 2008.
- 5.2 There is no formal requirement for a local planning authority to undertake public consultation on the Habitats Regulation Assessment. However the Council has decided to consult with CCW throughout the process. The reports produced will be made available as background papers for information on the LDP.

## **6. HABITATS REGULATION SCREENING**

- 6.1 Officers of the Council's Planning Policy and Transportation Policy team have undertaken the screening stage of the HRA. CCW have been informally consulted to source relevant information in order to assess and if necessary address the potential impacts on European Sites that may be affected by the Draft Preferred Strategy. The process follows that recommended in the draft



Welsh Assembly Government guidance detailed above and illustrated at Appendix 2. This section assesses the potential impacts on European Sites within or in close proximity to the Vale of Glamorgan as far as is practicable based on the level of information available within the Draft Preferred Strategy.

## 6.2 Stage 1: Identification of Natura 2000 Sites

6.2.1 The first step of the screening process involves the identification of European sites that could be affected. An initial “long list” of sites has been compiled considering sites within 15 kilometres of the Vale of Glamorgan. 6 European sites have been identified inside or within a 15km distance of the Vale of Glamorgan. They are as follows:

Site Name	Site Designation
Dunraven Bay	SAC
Severn Estuary / Mor Hafren	SPA / cSAC / RAMSAR
Kenfig / Cynffig	SAC
Cefn Cribwr Grasslands	SAC
Blackmill Woodlands	SAC
Cardiff Beech Woods	SAC

6.2.2 Detailed plans of each European Site identified are included at Appendix 3.

## 6.3 Stage 2 – Compilation of Site Information

### 6.3.1 Sites within the Vale of Glamorgan

<b>Name:</b>	Dunraven Bay
<b>Designation:</b>	Special Area of Conservation
<b>Ref Code:</b>	UK0030139
<b>Designated:</b>	13 <sup>th</sup> December 2004
<b>Area:</b>	Variable

#### Primary Reason for Designation

The 20 or so plants of shore dock *Rumex rupestris* growing here on damp coastal limestone are the only remnant of the species' former Bristol Channel range and it is considered to be one of the best areas for the species in the United Kingdom. The species has disappeared through loss of damp dune-slacks and shingle banks from other sites such as Merthyr Mawr, Kenfig,

Braunton Burrows and Pennard but is relatively secure on this steep, inaccessible site. The Dunraven Bay population is a significant seed-source for recolonisation of Bristol Channel dunes and beach-heads when future management restores these habitats to favourable condition.

**Name:** Severn Estuary / Mor Hafren  
**Designation:** Special Protection Area  
RAMSAR  
candidate Special Area of Conservation  
**Ref Code:** UK9015022 (SPA)  
UK11081 (RAMSAR)  
UK0013030 (cSAC)  
**Designated:** 13<sup>th</sup> July 1995  
31<sup>st</sup> August 2007  
**Area:** 24,662.98Ha (SPA / RAMSAR)  
73,315.Ha (cSAC)

### **Primary Reason for Designation**

SPA - Internationally important populations of regularly occurring Annex1 species: Bewicks swan (*Cygnus columbianus bewickii*). Internationally important populations of 5 regularly occurring migratory bird species: Shelduck (*Tadorna tadorna*), Dunlin (*Calidris alpina alpina*), Redshank (*Tringa totanus totanus*), European white-fronted goose (*Anser albifrons*), Gadwall (*Anas strepera*).

RAMSAR – Criterion 1: immense tidal range (second-largest in world), that affects both the physical environment and biological communities. Criterion 3: Due to unusual estuarine communities, reduced diversity and high productivity. Criterion 4: important for the run of migratory fish between sea and river via estuary. Criterion 5: Assemblages of international importance. Criterion 6: species/populations occurring at levels of international importance. Criterion 8: The fish of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.

cSAC - Annex 1 habitats - Estuaries. Mudflats and sandflats not covered by seawater at low tides. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*). Annex 1 habitats present as a qualifying feature but not a primary reason for selection of the site – Sandbanks which are slightly covered by seawater all the time. Reefs. Annex II species that are a primary reason for

selection of the site – Sea lamprey (*Petromyzon marinus*), River lamprey (*Lampetra fluviatilis*), Twait shad (*Alosa fallax*).

### 6.3.2 Sites outside the Vale of Glamorgan

**Name:** Kenfig / Cynffig  
**Designation:** Special Area of Conservation  
**Ref Code:** UK0012566  
**Designated:** December 2004  
**Area:** 1,191.67Ha

#### Primary Reason for Designation

Kenfig is a largely intact dune system with extensive areas of fixed dune vegetation with red fescue *Festuca rubra* and lady's bedstraw *Galium verum* and semi-fixed dune grassland with marram *Ammophila arenaria* and red fescue. There is also a relatively large area of more acidic vegetation dominated by sand sedge *Carex arenaria*, sheep's-fescue *Festuca ovina* and common bent *Agrostis capillaris*.

It contains one of the largest series of dune slacks in Wales which are species-rich and there are extensive areas of dunes with *Salix repens* ssp. *argentea*, which represent a mature phase in dune slack development. The site is in the central part of the range of this community on the west coast and is a highly representative example of this habitat type.

Kenfig also contains the most important example of Humid dune slacks in the UK, owing to the extent of the habitat type and the conservation of its structure and function. These calcareous dune slacks are also amongst the most species-rich in the UK, supporting communities dominated by a variety of mosses and a number of rare plants, notably Fen orchid *Liparis loeselii*, for which the site is also selected. Some of the dune slacks on the site are still in the early successional stage of development.

Kenfig Pool is a shallow lake system within the extensive sand dune system of Kenfig, the water chemistry is indicative of a coastal, alkaline lake with a

moderate nutrient status. Large stands of common reed *Phragmites australis* are found on the pool's seaward side. Grey club-rush *Scirpus lacustris* ssp. *tabernaemontani*, sea club-rush *Scirpus maritimus*, branched bur-reed *Sparganium erectum* and yellow iris *Iris pseudacorus* are also present. A sheltered bay supports a plant association dominated by shining pondweed *Potamogeton lucens* and curled pondweed *P. crispus*. Hairlike pondweed *P. trichoides* is locally dominant in the north end and the south end has abundant rigid hornwort *Ceratophyllum demersum*, Canadian waterweed *Elodea canadensis*, fan-leaved water-crowfoot *Ranunculus circinatus*, spiked water-milfoil *Myriophyllum spicatum* and the charophytes *Chara aspera* var. *aspera* and *Nitella flexilis* var. *flexilis*. Shoreweed *Littorella uniflora* can be found growing in association with *C. aspera* and the aquatic moss *Fontinalis antipyretica* along the sandy shore section. *C. aspera* also dominates the substrate off the grazed landward shoreline, to a depth of approximately 1.5 m.

<b>Name:</b>	Cefn Cribwr Grasslands
<b>Designation:</b>	Special Area of Conservation
<b>Ref Code:</b>	UK00301113
<b>Designated:</b>	December 2004
<b>Area:</b>	58.35Ha

### **Primary Reason for Designation**

This is one of four sites representing *Molinia* meadows in south and central Wales, one of the major UK strongholds for this habitat type. At this site, there are extensive stands of M24 *Molinia* – *Cirsium dissectum* fen-meadow, including the heathy sub-type with cross-leaved heath *Erica tetralix*, as well as other forms with a stronger representation of grasses, rushes and small sedges. Transitions to stands of more acidic *Molinia* and *Juncus* pasture, dry neutral grassland and wet scrub vegetation are well-represented. Uncommon and declining species associated with the *Molinia* meadows at this site include the nationally rare viper's-grass *Scorzonera humilis* and the nationally scarce soft-leaved sedge *Carex montana*.

**Name:** Blackmill Woodlands  
**Designation:** Special Area of Conservation  
**Ref Code:** UK0030090  
**Designated:** December 2004  
**Area:** 71.01Ha

### **Primary Reason for Designation**

The Blackmill Woodlands site is designated primarily as it is considered to be one of the best examples of old sessile oak woods with *Ilex* and *Blechnum* in the British Isles. The habitat extends the geographical range of such sites and is on the southern extreme of the habitat's range in Wales. The site contributes to the habitats representation in Wales and in south-west England. The ground flora is restricted by the relative dryness of the site, but the main habitat features of sessile oak *Quercus petraea* canopy, acidic ground flora of *Vaccinium myrtillus* and wavy hair-grass *Deschampsia flexuosa*, and moderate fern and bryophyte cover are present. The woodlands have a long cultural history of management, reflected in the distinctive gnarled appearance of many of the trees.

**Name:** Cardiff Beech Woods  
**Designation:** Special Area of Conservation  
**Ref Code:** UK0030139  
**Designated:** December 2004  
**Area:** 115.62Ha

### **Primary Reason for Designation**

Cardiff Beech Woods contains one of the largest concentrations of *Asperulo-Fagetum* beech forest habitat in Wales, and represent the habitat close to the western limit of its past native range in both the UK and Europe. The woods show mosaics and transitions to other types, including more acidic beech woodland and oak *Quercus* and ash *Fraxinus excelsior* woodland.

Characteristic and notable species in the ground flora include ramsons *Allium ursinum*, sanicle *Sanicula europaea*, bird's-nest orchid *Neottia nidus-avis* and yellow bird's-nest *Monotropa hypopitys*. Also present as a qualifying feature but not a primary reason for the selection of the site *Tilio-Acerion* forests of slopes, screes and ravines.

The woods have been extensively managed for timber production in the past and the woodland resource is currently managed in some areas through the Woodland Grant Scheme. The woodlands contain important archaeological features and are easily accessible to the public resulting in significant visitor pressure in some places. Issues such as these are addressed through management plans.

The underlying geology of carboniferous limestone has resulted in a number of quarries in the locality, and issues arising from the presence of active quarries are addressed through the planning system. The majority of the woodlands are owned, or in the guardianship of government agencies, with most of the remainder of the woodland covered by a Section 106 agreement.

#### **6.4. Stage 3: Policies Review.**

- 6.4.1 The Draft Preferred Strategy for the LDP sets out the spatial direction of the Plan between 2011 and 2026 and seeks to *“Concentrate development opportunities in Barry and the South East Zone. The St.Athan area to be a key development opportunity. Other sustainable settlements to accommodate further housing and associated developments.”*
- 6.4.2 At this stage of the LDP process, the Draft Preferred Strategy for the Vale of Glamorgan is spatial in nature and provides a framework within which future development will take place over the Plan period. In this regard the draft preferred strategy considers only the broad location for future development and is not site specific.
- 6.4.3 While the Council has called for Candidate Sites to facilitate the development requirements of the LDP, no detailed assessment of the submitted sites has been undertaken to date. Assessment of the sites will take place during 2008 and the methodology for assessing the sites includes full consideration of environmental issues. It is considered that this process will be complimentary to the full AA process recommended below.

## **6.5 Stage 4: In combination effects.**

6.5.1 Article 6(3) of the Habitats Directive requires that the effect of plans either individually or in combination with other plans should be assessed to ascertain if any significant effects are likely.

6.5.2 LDPs of neighbouring local authorities have the potential in combination with the Vale of Glamorgan LDP to impact upon the identified European Sites. The South East Wales Strategic Planning Group (SEWSPG) is currently considering this issue.

## **6.6 Stage 5: Assessment of likely significant effects.**

6.6.1 The table at Appendix 4 details the six European Sites identified above and lists the activities and operations for that could threaten the integrity of the site. A general assessment of the likely effects of the Draft Preferred Strategy on the designated sites identified has been undertaken and are included within the table.

6.6.2 Appendix 5 contains location plans of the six European Sites identified inside or within 15 kilometres of the administrative area of the Vale of Glamorgan. The sites and 5, 10 and 15 kilometre zones radiating from the European sites have been overlaid on a pictorial representation of the Draft Preferred Strategy as described in Section 3 above.

## **7. CONCLUSIONS**

7.1 The Habitats Regulations Assessment Screening for the Vale of Glamorgan LDP Draft Preferred Strategy has identified the potential for it to have a negative impact on 2 of the 6 European Sites identified within or in close proximity to the Vale of Glamorgan namely, the Severn Estuary SPA/cSAC/RAMSAR and the Kenfig SAC sites.

- 7.2 It is therefore recommended that an AA be undertaken to fully ascertain the effect of the LDP on the integrity of the sites identified. In addition, while it is considered highly unlikely that the Draft Preferred Strategy will result in significant detrimental effects to the integrity of the other 4 sites identified, it is recommended that a precautionary approach be adopted and that the potential for impacts to the designated sites be re-assessed when the candidate sites submitted have been considered.
- 7.3 The Council intends to appoint independent consultants to carry out the AA to ensure that it satisfies the requirements of the Habitats Regulations. It will also allow for an objective and independent appraisal to be carried out of the implications for European sites.



## Appendices

## Appendix 1

### **Special Areas of Conservation (SAC)**

SACs are designated under the EC Habitats Directive. The Directive applies to the UK and the overseas territory of Gibraltar. SACs are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are designated under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

### **Candidate Special Areas of Conservation (cSAC)**

Sites which have been submitted to the European Commission by Government, but not yet formally adopted by the Commission, are referred to as candidate Special Areas of Conservation (cSACs). In the UK, designation of SACs is devolved to the relevant administration within each country.

### **Special Protection Areas (SPA)**

SPAs are classified by the UK Government under the EC Birds Directive. The Directive applies to the UK and the overseas territory of Gibraltar. SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union. SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles are classified under the Wildlife and Countryside Act 1981.

### **Potential Special Protection Areas (pSPA)**

Sites that are currently in the process of being classified by Government are known as potential Special Protection Areas or pSPAs.

***SPAs, together with SACs, form the Natura 2000 network.***

### **Natura 2000 Network**

Natura 2000 is the name of the European Union-wide network of nature conservation sites established under the EC Habitats and Birds Directives. This

network will comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

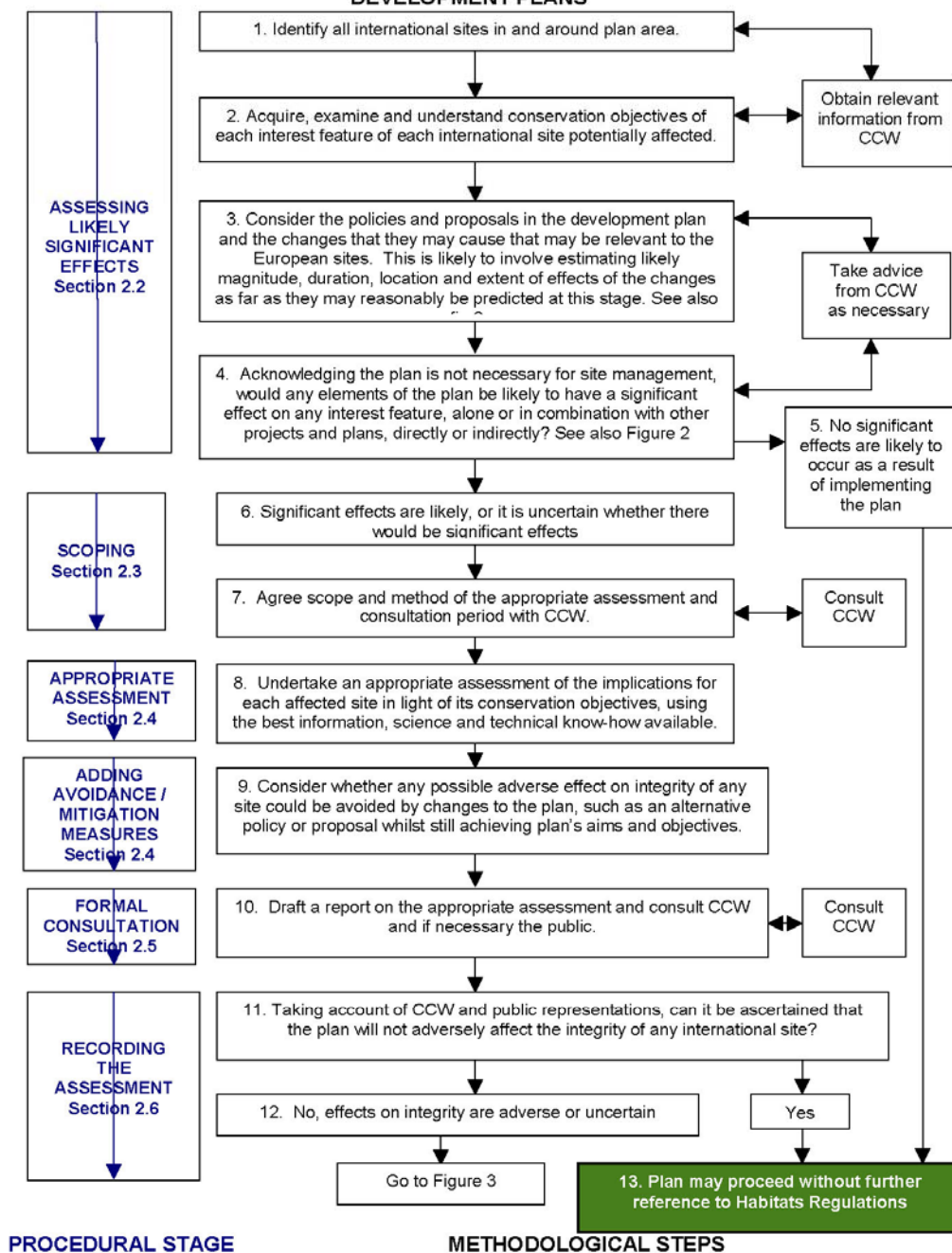
### **Ramsar sites**

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. Originally intended to protect sites of importance especially as waterfowl habitat, the Convention has broadened its scope over the years to cover all aspects of wetland conservation and wise use, recognising wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. The Convention adopts a broad definition of wetland, namely "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres". Wetlands "may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands".

## Appendix 2

Consultation Version 20 October 2006

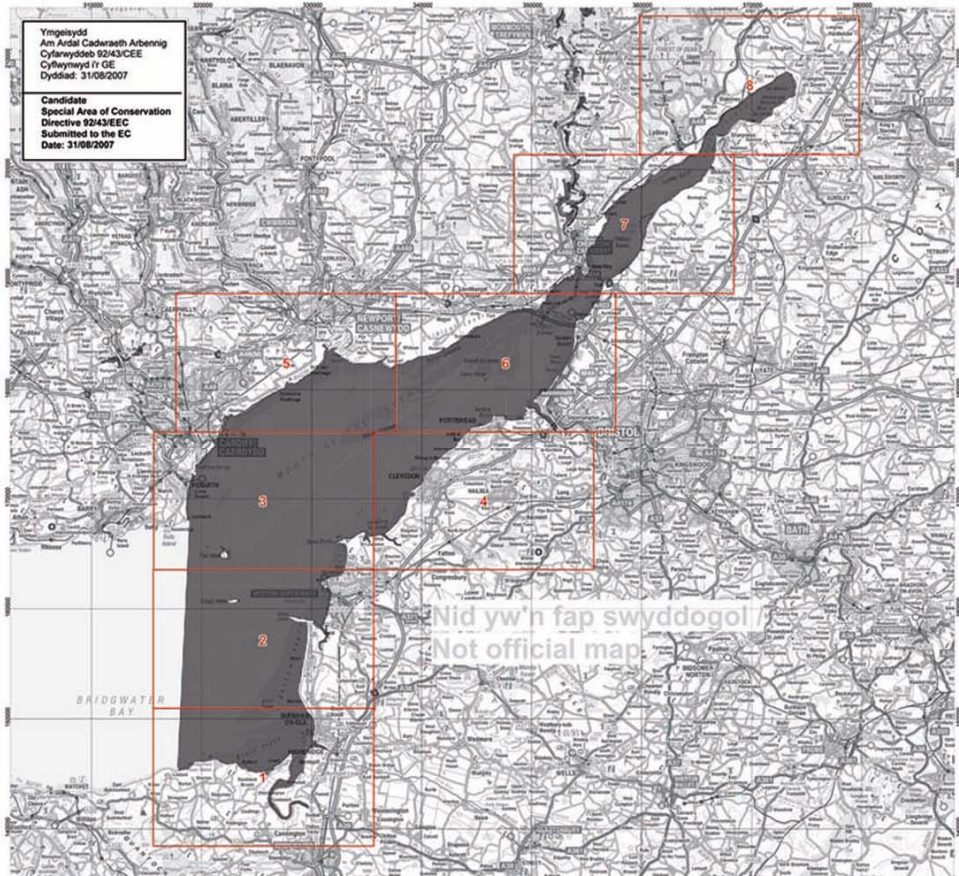
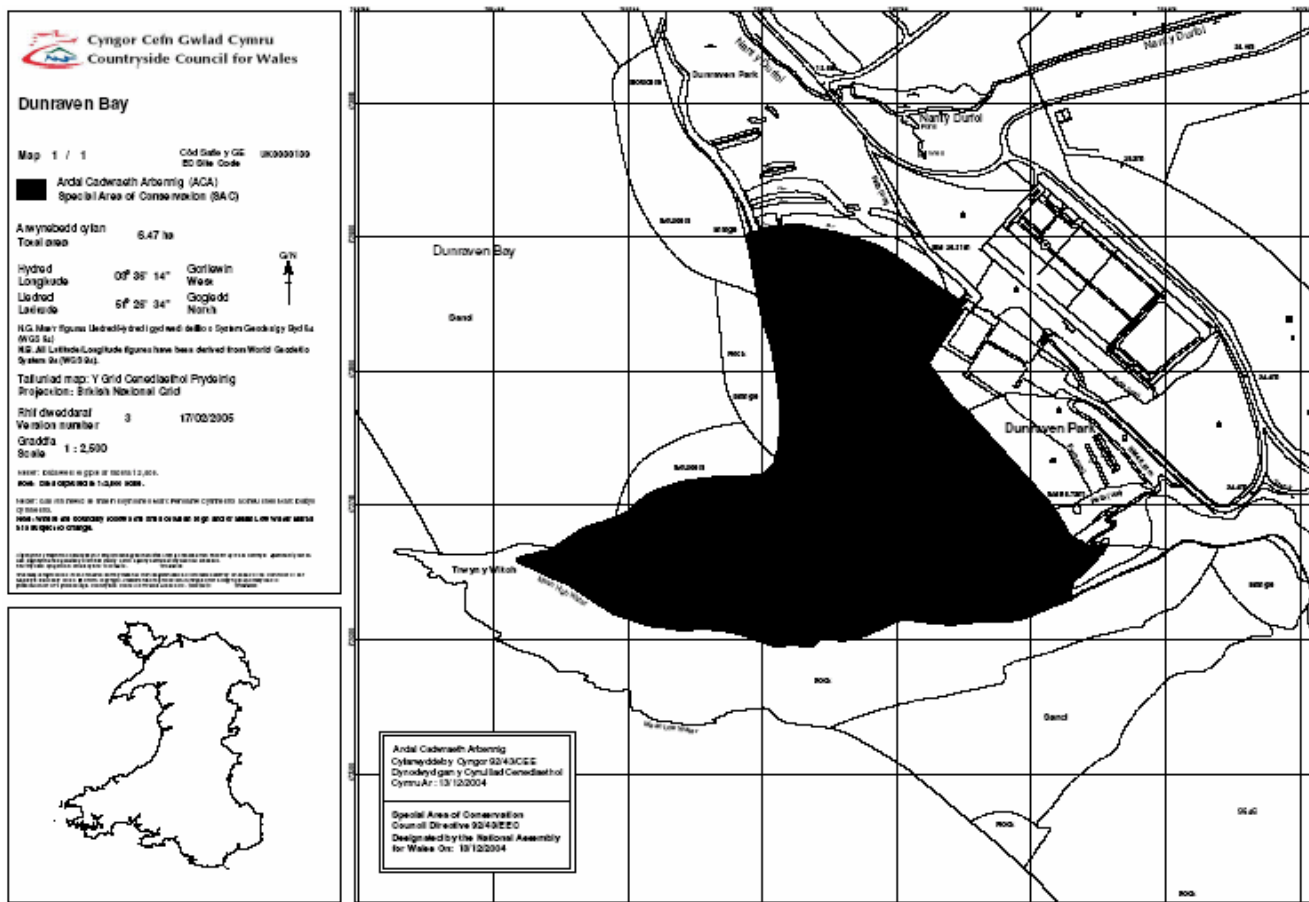
**FIGURE 1**  
**APPLICATION OF REGULATION 85 OF THE HABITATS REGULATIONS TO DEVELOPMENT PLANS**



6

Source: David Tyldesley and Associates and the Welsh Assembly Government (October 2006)

### Appendix 3









**Cyngor Cefn Gwlad Cymru**  
**Countryside Council for Wales**

**Blackmill Woodlands**

Map 1 / 1 OMD Sefn y GE UC0000000  
 20 Date Code

Andal Cadwreth Arbennig (ACA)  
 Special Area of Conservation (SAC)

Arwynebedd gytan 71.01 ha  
 Total area

Hydref 09° 32' 44" Gorllewin  
 Longitude Wael  
 Llofnod 57° 33' 40" Gogledd  
 Latitude North

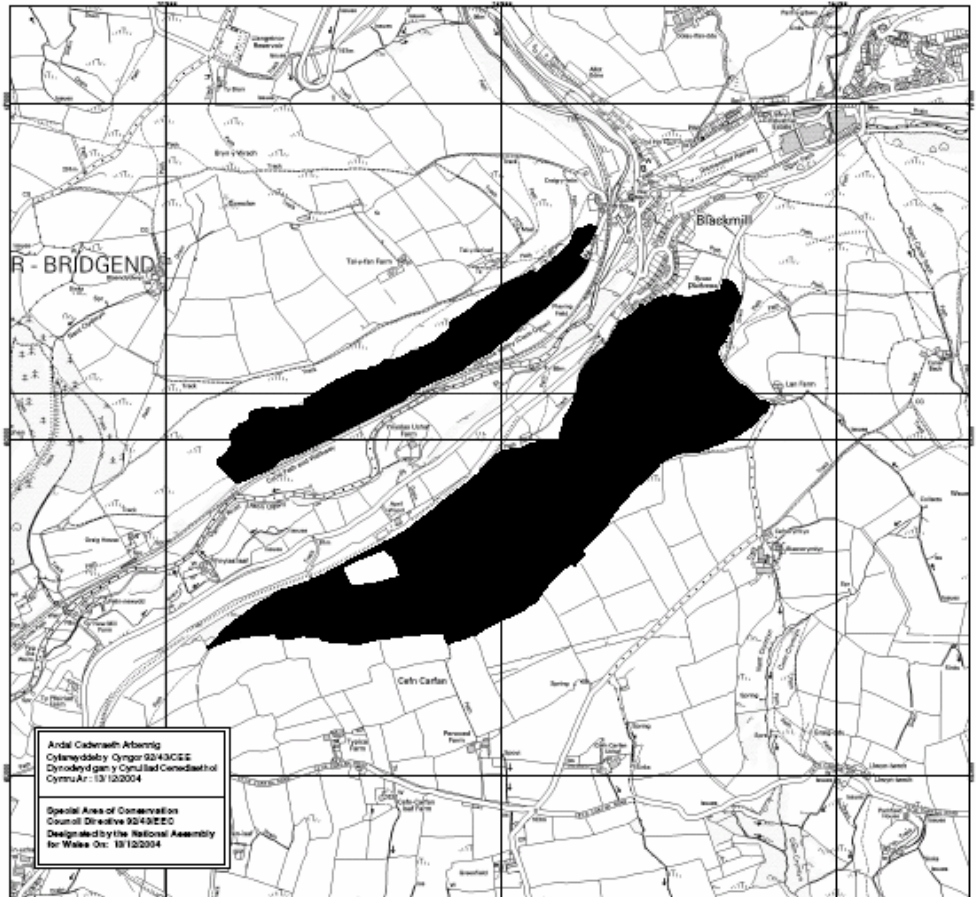
N.G. Many figures (underlined) are given in decimal form in the Ordnance Survey Grid System (OS Grid).  
 N.S. All Latitude/Longitude figures have been derived from World Geodetic System 84 (WGS 84).

Tafliwrdd map: Y Grid Cenedlaethol Prydeinig  
 Projection: British National Grid

Rhif diweddariol 3 16/02/2005  
 Version number

Graddfa 1 : 10,000  
 Scale

MAKES: Drawings are given in metric (SI) units unless otherwise stated. All measurements are given in metres (m) unless otherwise stated. All distances are given in metres (m) unless otherwise stated. All bearings are given in degrees (°) unless otherwise stated. All bearings are given in degrees (°) unless otherwise stated. All bearings are given in degrees (°) unless otherwise stated.



**Cyngor Cefn Gwlad Cymru**  
**Countryside Council for Wales**

**Cardiff Beech Woods**

Map 1 / 1 OMD Sefn y GE UC0000100  
 20 Date Code

Andal Cadwreth Arbennig (ACA)  
 Special Area of Conservation (SAC)

Arwynebedd gytan 115.82 ha  
 Total area

Hydref 09° 16' 19" Gorllewin  
 Longitude Wael  
 Llofnod 57° 32' 00" Gogledd  
 Latitude North

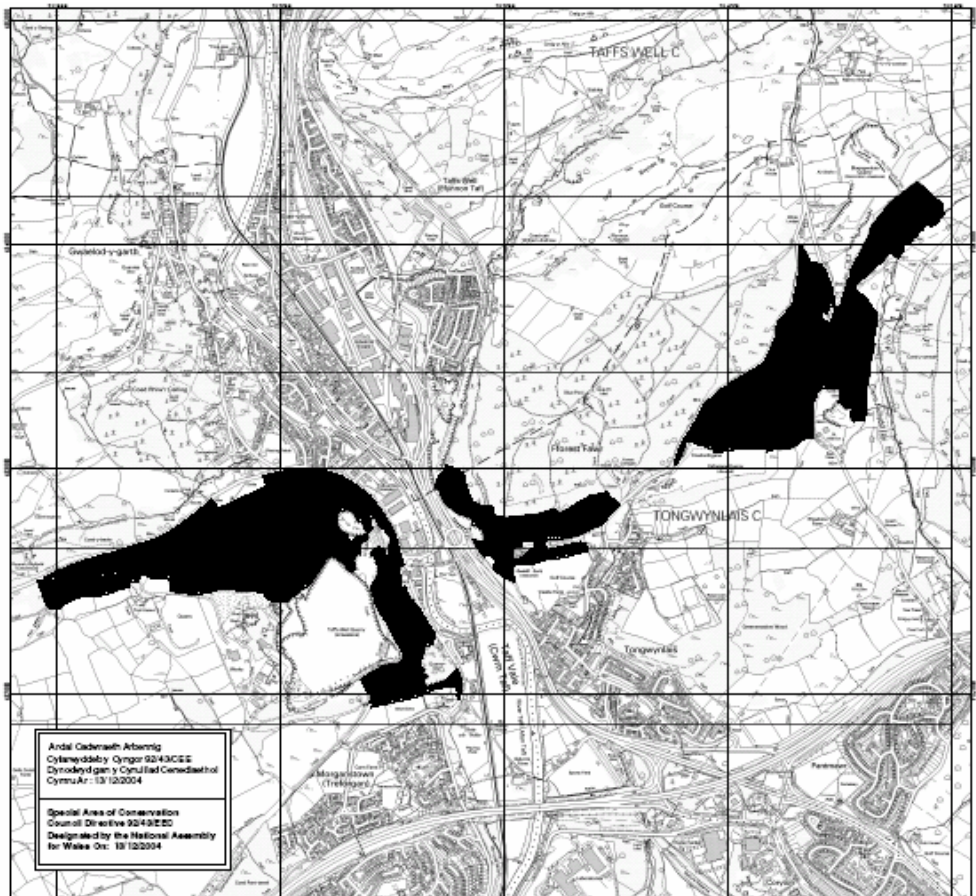
N.G. Many figures (underlined) are given in decimal form in the Ordnance Survey Grid System (OS Grid).  
 N.S. All Latitude/Longitude figures have been derived from World Geodetic System 84 (WGS 84).

Tafliwrdd map: Y Grid Cenedlaethol Prydeinig  
 Projection: British National Grid

Rhif diweddariol 3 21/02/2005  
 Version number

Graddfa 1 : 15,000  
 Scale

MAKES: Drawings are given in metric (SI) units unless otherwise stated. All measurements are given in metres (m) unless otherwise stated. All distances are given in metres (m) unless otherwise stated. All bearings are given in degrees (°) unless otherwise stated. All bearings are given in degrees (°) unless otherwise stated. All bearings are given in degrees (°) unless otherwise stated.



#### Appendix 4: Factors affecting European Sites within the sphere of influence of the Vale of Glamorgan Local Development Plan.

The Countryside Council for Wales (CCW) and Natural England (NE) have a duty under Regulation 33(2)(b) of The Conservation (Natural Habitats &c.) Regulations 1994 to advise other relevant authorities as to any operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species, for which the site has been designated. The information in the table below has been summarised from the Site Issue Briefing notes prepared by CCW and NE. Consideration of the potential for impacts on the identified sites has been based on the LDP Draft Preferred Strategy, which seeks to concentrate development opportunities in Barry and the South East Zone. The St Athan area to be a key development opportunity. Other sustainable settlements to accommodate further housing and associated development.

Site	Designation	Proximity to VoG (Km)	Factors / activities affecting designated site	
			Factor/ Activity	Likely Effect
Dunraven Bay	SAC	Within administrative area.	Water Quality	Changes to the water quality within the vicinity of the SAC brought about by the application of fertilisers, air or seaborne pollution, could result in a detrimental impact to the designated site.
			Water Quantity	Changes to the water quantity within the vicinity of the SAC brought about by either surface water abstraction or discharge either through commercial or domestic means could result in a detrimental impact to the designated site.
			Management	Changes to agricultural practices specifically the increases use of fertilisers on farmland in vicinity of SAC could result in detrimental impact to site.
				Engineering works associated with coastal defence could result in detrimental impact to designated site.
				Site lies within Glamorgan Heritage Coast, an area extremely popular for recreational pursuits. Recreational pastimes could result in detrimental impact on designated site.
			Development	Unlikely that development itself would have a direct impact upon the designated SAC however, new housing in locality could result in additional recreational pressure on Glamorgan Heritage Coast.
			Mineral Extraction	Aggregate removal within the vicinity of the site could have a detrimental impact upon the SAC e.g. through the lowering of the water table or if marine, through increased coastal erosion.
			Air Quality	Increases in airborne pollution either derived from vehicle movements or industrial processes could result in detrimental effects on the designated SAC.
Habitat Fragmentation	Designated site located on fragile limestone cliff face. Natural processes could result in the loss of part or the entire designated site.			
<b>Assessment</b>				
<p>The primary focus of the LDP strategy will be in Barry and the southeastern zone with St Athan being seen as a major development opportunity. Development resulting from the LDP in the proximity of the SAC is therefore unlikely to be of scale that would result in a detrimental impact upon the shore dock population, which is the primary reason for the designation of the site. While increased pressure for recreation could result from increased housing provision, the location of the site within the Glamorgan Heritage Coast, which is actively managed for conservation, affords it significant protection. In addition, the location of the species population on an inaccessible liassic limestone cliff face means that it is highly unlikely to be impacted upon by increases in recreational pressure. While increases in airborne pollution could impact upon the site, its location within industrial south Wales means that it is already subject to high levels of pollution and it is therefore considered unlikely that development resulting from the LDP would result in a significant detrimental effect on the integrity of the primary features of the designated site. The primary threat to the site is likely to come from natural processes such as rock falls that occur regularly in the vicinity of the identified species. Notwithstanding the above it is considered that the sites close proximity to Bridgend could result in in-combination effects on the site and that a precautionary approach should be adopted and further investigations undertaken.</p>				



Site	Designation	Proximity to VoG (Km)	Factors/ activities affecting designated site	
			Factor/ Activity	Likely Effect
Severn Estuary	SPA / cSAC / RAMSAR	Bordering administrative area.	Airborne sports	The mechanisms by which these activities could impact upon the designated site(s) are numerous and include land-take, disturbance through noise and vibration, pollution through ground and surface water run-off, and interruption of flight-lines by wind turbines.
			Archaeology	
			Barrage and sluice operation	
			Beach Cleaning	
			Cable laying & maintenance	
			Coastal protection and flood defence improvement and maintenance works	
			Collection of scientific data	
			Contamination through historic industry	
			Fishing (commercial and recreational)	
			Emergency planning	
			Events/Festivals	
			Excavation	
			Habitat creation and restoration	
			Maintenance Dredging (Ports and IDBs)	
			Managing unauthorised waste	
			Outfall maintenance (sewerage & CSO)	
Private (domestic & industrial) and surface water discharges				
Pipeline maintenance and Port waste management (of ship generated waste)				

**Assessment**

Given the extent of the Severn Estuary and the diverse range of activities and operations that could result in adverse impact to the European Site, it is considered inevitable that the Draft Preferred Strategy will in some way, impact upon the designated site. While much of the development arising from the draft preferred strategy is likely to be located well away from the Severn Estuary, the south-eastern zone has been identified as a growth area and abuts the boundary of the designated site. Therefore, it is recommended that a more detailed assessment of the LDP be undertaken following consultation on the Draft Preferred Strategy to ascertain and mitigate against any likely significant effects to the SPA, cSAC, RAMSAR.

Site	Designation	Proximity to VoG (Km)	Factors/ activities affecting designated site	
			Factor/ Activity	Likely Effect
Kenfig	SAC	Bordering administrative area.	Water Quality	Maintenance of the SAC is directly dependant upon the hydrological and hydro chemical regime. Kenfig is unusual in that it is predominantly rain and groundwater fed although, the Rivers Kenfig and Ogwr do border the sites and may have localised impacts. Actions perhaps some considerable distance away, could impact upon the underlying limestone aquifer and have a detrimental impact on the conservation status of the site. Impacts related to quarrying activities and disused and existing landfill operations in the surrounding catchment could impact on the SAC. Other possible sources could include farming activities close or adjacent to the site e.g. muck spreading/fertiliser application.
			Water Quantity	Kenfig is unusual in that it is predominantly rain and groundwater fed although, the Rivers Kenfig and Ogwr do border the sites and may have localised impacts. The nature of the underlying limestone aquifer means that activities perhaps some considerable distance away, both spatially and temporally, can have an impact on the site.
			Management	Agricultural activities could have a detrimental impact on the SAC however they are more likely to be localised. The majority of recreational activities have minimal effects on the features of the site, however erosion caused by walking and fire could result in damage to the habitat.
			Development	Housing development within the vicinity of the site could result in increased recreational pressure on the SAC.
			Mineral Extraction	Quarry expansion and aggregate removal could have an impact on the water quality/quantity (see above).
			Air Quality	Several features at Kenfig are potentially sensitive to air quality impacts. This effect can be direct; such as damage to sensitive plant species by high levels of ethylene/ethene; or indirect such as changes to water chemistry due to input of atmospheric nitrogen. Acidity is unlikely to be problematic at Kenfig due to the underlying carbonate geology.  Atmospheric nitrogen oxide (NOx) levels may be exceeded for the site with several nearby sources including industrial (such as Margam steel works and Baglan Bay), agricultural (chicken farms – mainly ammonia), old landfill sites, transport (M4) and wind blown particulates (from adjacent tips) being potential sources.

**Assessment**

The primary focus of the Draft Preferred Strategy will be in Barry and the south-eastern zone with St Athan being seen as a major development opportunity. Development resulting from the LDP in the proximity of the SAC is therefore unlikely to be of scale that would result in a detrimental impact upon the site. Notwithstanding this, there are three operational quarries (Ewenny, Pant, Lithalun) within 3 kilometres of the SAC. Mineral extraction and/or after use of the site could therefore impact upon the SAC as described above however this is considered to be unlikely due to the distance and ground contours. However, the site should be subject to a more detailed assessment at a later stage of the LDP development.

Site	Designation	Proximity to VoG (Km)	Factors/ activities affecting designated site	
			Factor/ Activity	Likely Effect
Cefn Cribwr Grasslands	SAC	5 - 10	Water Quality	Changes to the water quality within the vicinity of the SAC brought about by the application of fertilizers or air pollution could result in a detrimental impact to the designated site.
			Water Quantity	Changes to the water quantity within the vicinity of the SAC brought about by either surface water or ground water abstraction could result in a detrimental impact to the designated site.
			Management	The intensification or significant reduction of farming practices of the site could result in changes to the species composition of the site detrimental to the favourable conservation status of the site.
			Development	Housing development could result in the partial or total loss of the site.
			Mineral Extraction	Quarrying or open cast mining within the vicinity of the site could result in changes to the hydrological regime and the destruction or partial loss of the habitat.
			Air Quality	Lime dust drift could impact upon the species composition at the site.
			Physical Barriers	The introduction of hedges, woodlands or habitat fragmentation could prevent butterfly movements between the sites.
			Habitat Fragmentation	As above.
			Other	Weather conditions and increases in parasite numbers could threaten the metapopulation of the marsh fritillary butterfly.

**Assessment**

It is considered highly unlikely that the Draft Preferred Strategy for the Vale of Glamorgan LDP would result in development likely to have a significant effect on the integrity of the primary features of the designated site(s). However, Marsh Fritillary butterflies have been recorded within the Vale of Glamorgan and while it is considered highly unlikely that they originated from the Cefn Cribwr Grassland site, the species has been known to range up to 15 kilometres from its primary habitat. In addition, as the Vale supports a number of similar grassland habitats, it is considered that a precautionary approach should be adopted and further investigations undertaken.

Site	Designation	Proximity to VoG (Km)	Factors/ activities affecting designated site	
			Factor/ Activity	Likely Effect
Blackmill Woodland	SAC	15	Atmospheric Pollution	<p>Acidification and the deposition of nitrogen compounds present a major conservation threat to wildlife in many parts of the UK. The Joint Nature Conservation Committee (JNCC) advocates the reduction of acid deposition to levels that will sustain national and internationally designated habitats. The reduction of pollution to below critical loads and levels are also the government's stated objectives. The Statutory Nature Conservation Agencies and others have demonstrated that even when all currently proposed cuts in acidifying and eutrophying emissions are put in place a large number of internationally important habitats will still be receiving harmful levels of pollution in excess of their critical loads. A detailed evaluation of air pollution impacts to the BlackmillWoodland SAC will be required before the potential risks to the habitats and species can be properly assessed.</p> <p>The acidic nature of this habitat and its soils, combined with its location within industrial South Wales means that critical loads are likely to have been exceeded for most of the last 200 years, a factor which may underlie the poor moss, liverwort and fern flora. CCW has no data to support this suggestion.</p> <p>Lichens are also an important aspect of this habitat in other SACs selected for this feature. However CCW holds no data on the lichens on this site.</p>
			Fly-tipping	Fly tipping is having localised impacts on the designated site in areas of population.
			Grazing	Over grazing, including deer grazing could result in a detrimental impact to the site.
			Woodland Management	Site requires active management to ensure conservation status of the SAC is maintained.
<p><b>Assessment</b></p> <p>While development resulting from the LDP Draft Preferred Strategy is likely to result in increased vehicular movements and therefore a resultant increase in air pollution, the location of the designated site within industrial South Wales means that it is already subject to high levels of pollution (see above). It is therefore considered unlikely that the Vale of Glamorgan LDP Draft Preferred Strategy LDP would result in development likely to have a significant effect on the integrity of the primary features of the designated site. Notwithstanding this, the draft strategy includes objectives aimed at ensuring that development within the Vale of Glamorgan makes a positive contribution to reducing climate change and reducing the need for Vale residents to travel. Policies derived from objectives will help reduce these impacts. The remaining activities that could adversely affect the designated site are extremely localised and site specific and will not be affected by the draft preferred strategy.</p>				

Site	Designation	Proximity to VoG (Km)	Factors/ activities affecting designated site	
			Factor/Activity	Likely Effect
Cardiff Beech Woods	SAC	5 - 10	Woodland Management	Woodland needs to be managed to maintain the favourable conservation status of the site. Lack of or inappropriate activities such as coppicing could result in detrimental impacts to the designated site. Recreation / disturbance (including scrambling, off road vehicle use, recreation pressure, disturbance of fauna etc)
			Health & Safety	Possible site-specific health and safety issues the management of which need to be balanced with the conservation objectives of the site.
			Atmospheric Pollution	Acidification and the deposition of nitrogen compounds present a major conservation threat to wildlife in many parts of the UK. The Joint Nature Conservation Committee (JNCC) advocates the reduction of acid deposition to levels that will sustain national and internationally designated habitats. The reduction of pollution to below critical loads and levels are also the government's stated objectives. The Statutory Nature Conservation Agencies and others have demonstrated that even when all currently proposed cuts in acidifying and eutrophying emissions are put in place a large number of internationally important habitats will still be receiving harmful levels of pollution in excess of their critical loads. A detailed evaluation of air pollution impacts to the Cardiff Beech Woods SAC will be required before the potential risks to the habitats and species can be properly assessed.  Its location in industrialised South Wales, together with the presence of nearby quarrying and associated activities, means that there is the potential for localised atmospheric pollution. There is no evidence to date that this has had an adverse impact on the features but this may need to be addressed in more detail in the future. In the regional and national context critical loads may have been exceeded in recent years and this will need to be addressed when assessing air emissions of future developments.
			Development	The location of the site in the populated South Wales area means that there is considerable development pressure in the vicinity. Although development on the site itself is likely to be restricted to quarrying or recreation (see above), there is strong pressure for a variety of development and associated infrastructure on land adjacent to the site. There is therefore the potential for a range of detrimental impacts to the site.
			Water Resources	The location of the woodland on the top or side of raised ground means that, with the exception of Castell Coch Woodlands and Road Section, there are unlikely to be any issues arising from changes in surface water supply and quality. Commercial forestry in the vicinity of Castell Coch may have implications for surface water and this needs to be kept under review.  Again, because of the elevated location of the site, ground water has not been an issue to date, but this will be kept under review especially with respect to quarrying (see below).
			Commercial Forestry	Within the site - Although forestry operations have been undertaken previously, there are no current operations. Any proposals for such activity would have to be considered on their merits in the context of the conservation objectives.  Outside the site – There are areas of conifer plantation adjacent to the site, which may be subject to commercial forestry. Such activities have the potential to affect the features, for example through changes in surface water run-off or access requirements.

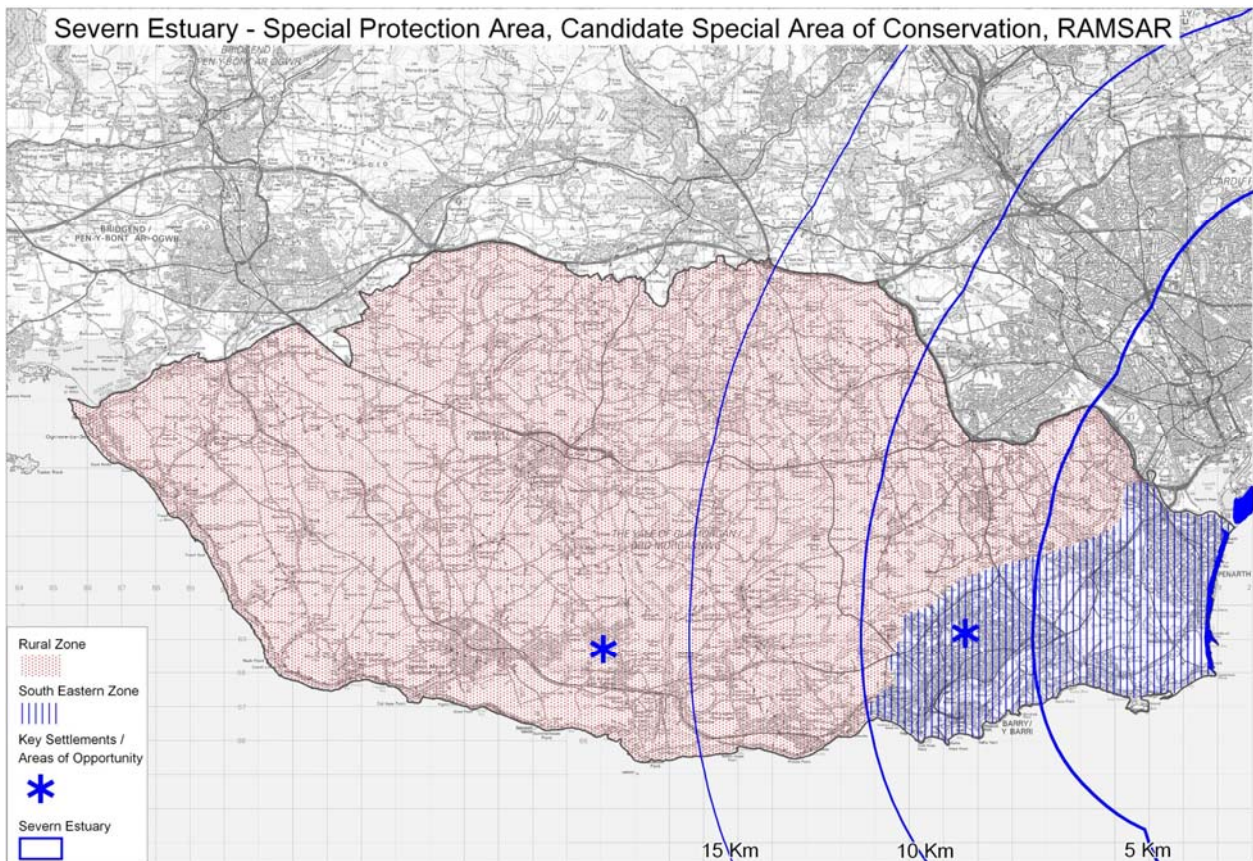
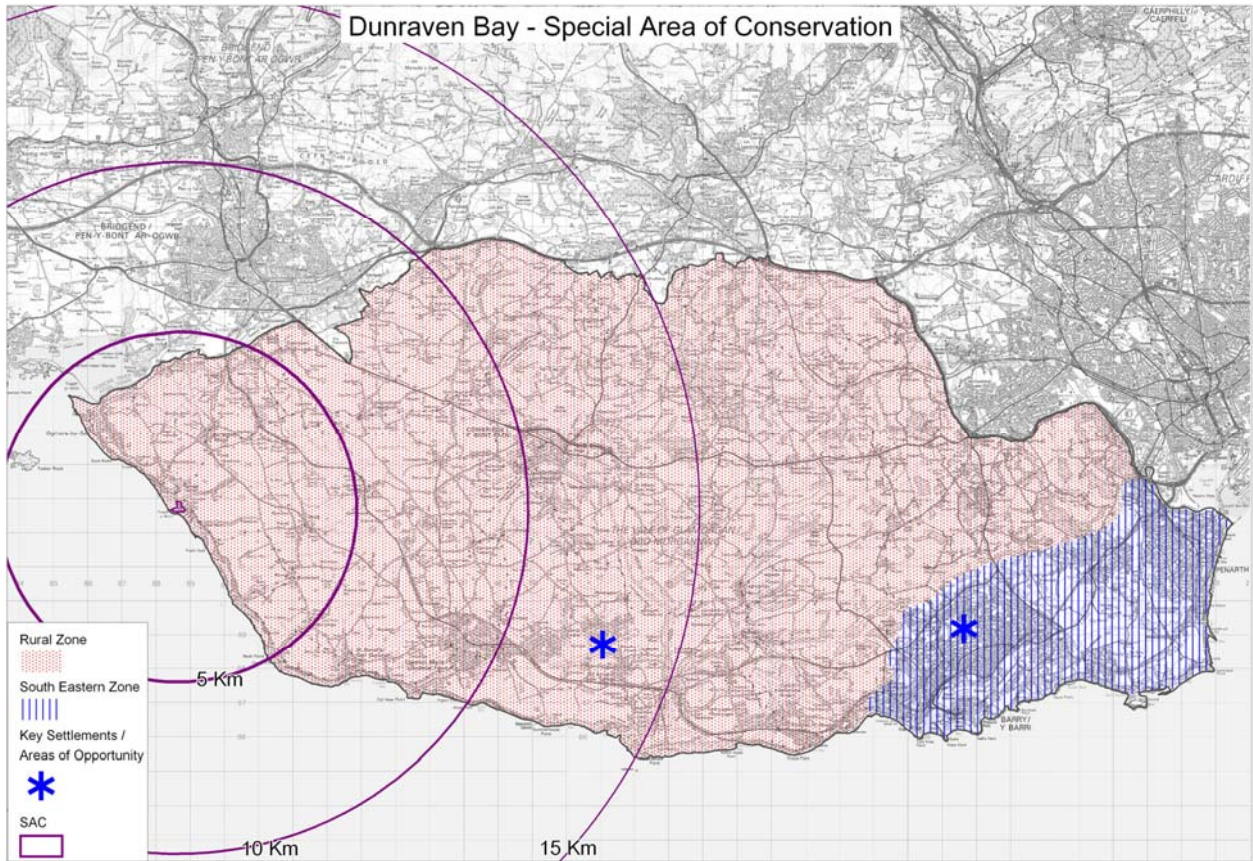
			Recreational Management	<p>The site offers considerable opportunity for a range of recreational activities including public access either on foot or by horse. The historic Castell Coch is situated within the site and attracts many visitors, which increases the access pressure on the woodlands. Management of access is nominally through the individual site owners but there are potential conflicts between different users which to date have been addressed through the Local Authority Access Forum. Access issues need to be kept under review.</p> <p>There is pressure to open up additional areas for access, with potential adverse implications for the ground flora and, depending on the scale of the proposals, the trees themselves. Again, this needs to be kept under review and advice provided through the relevant strategic planning processes and user groups.</p> <p>Increasing pressures may arise from promotion of Cardiff as the capital city of Wales, and any tourism or recreation initiatives affecting the Taff Trail, Castell Coch or Caerphilly Mountain Service.</p>
			Mineral Extraction	<p>There are a number of active and disused limestone quarries in the area of the SAC. Quarrying can lead to a direct loss of the primary feature together with indirect loss associated with issues such as access. Similarly, after use of mineral extraction sites could have a detrimental impact upon the designated site.</p>
			Cultural Heritage	<p>Possible site-specific cultural heritage issues the management of which need to be balanced with the conservation objectives of the site.</p>

**Assessment**

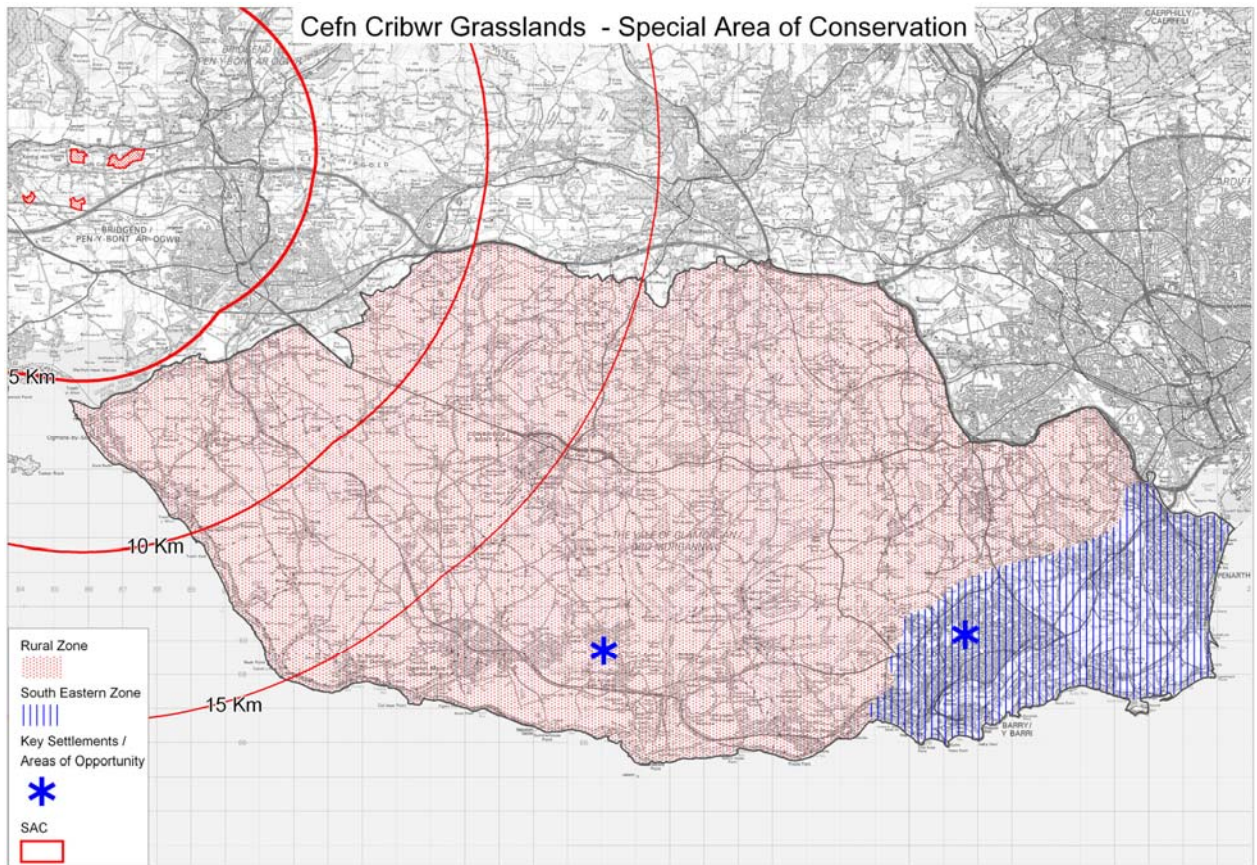
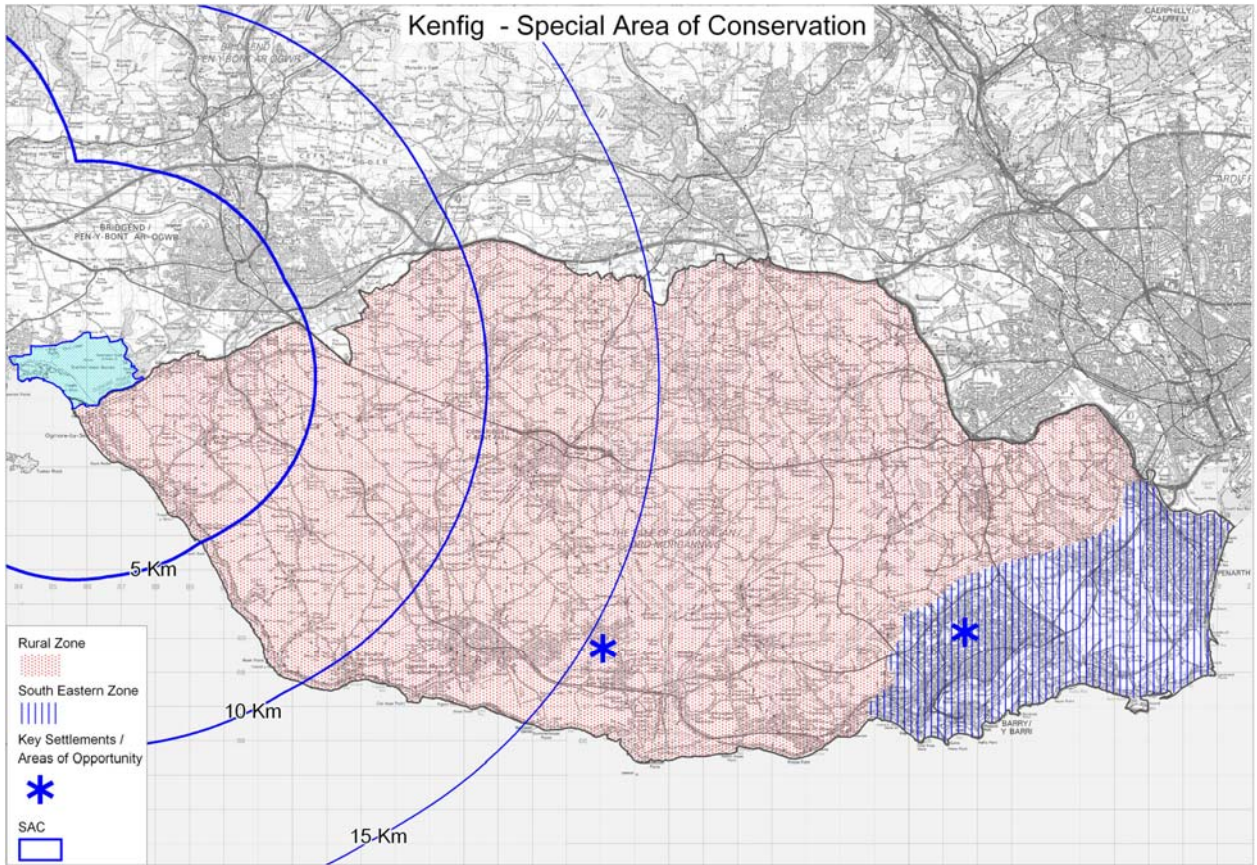
The primary focus of the LDP Draft Preferred Strategy will be in Barry and the south-eastern zone with St Athan being seen as a major development opportunity. It is therefore considered that while development will occur, it is unlikely to significantly increase those activities that would impact upon the integrity of the designated site. Similarly, the Draft Preferred Strategy is likely to result in increased vehicular movements and therefore produce a resultant increase in air pollution. However, the location of the designated site within industrial South Wales means that it is already subject to high levels of pollution (see above) and the increase is unlikely to adversely impact on the designated site. Development attributed to the LDP is also likely to result in increased pressure on existing recreational sites, however given the range, choice and quality of the recreational provision within the Vale it is thought unlikely that much, if any, of this increase would be directed at the designated site.



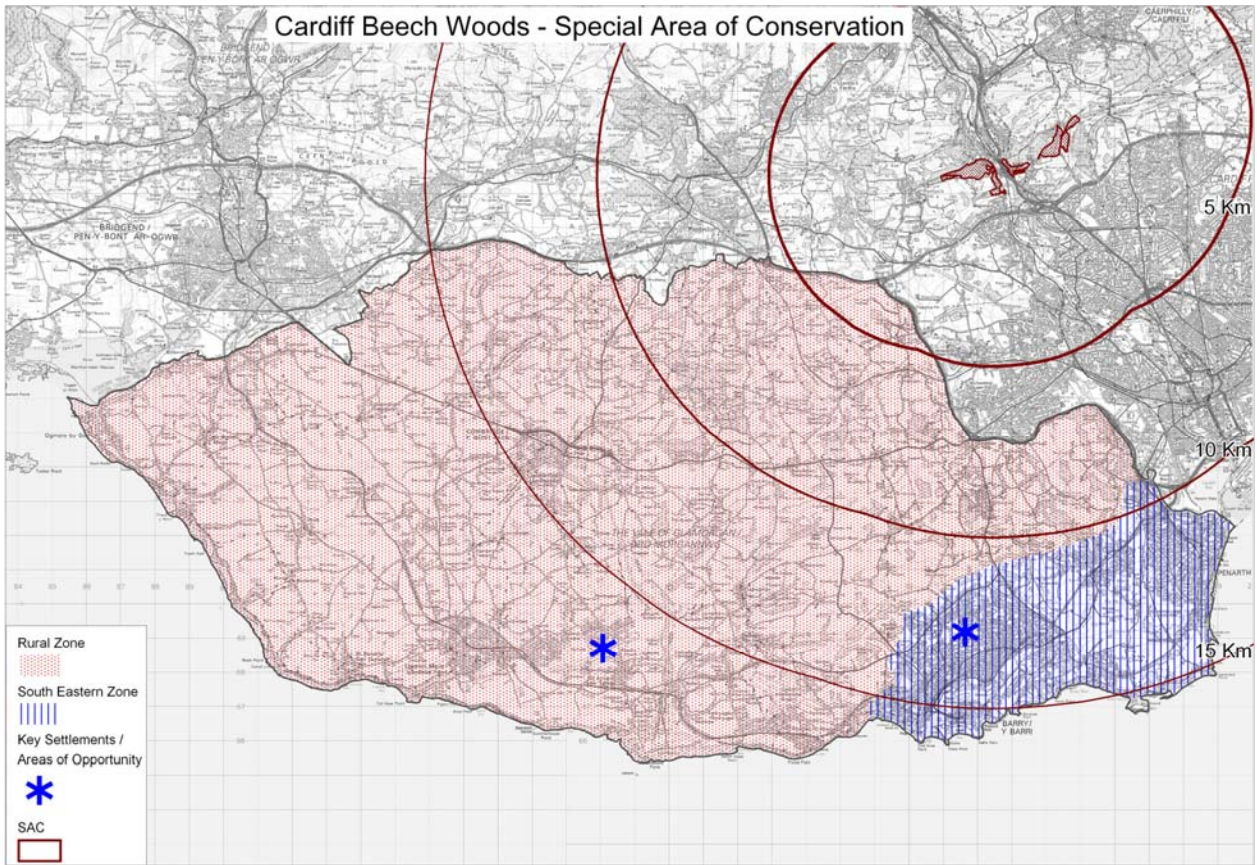
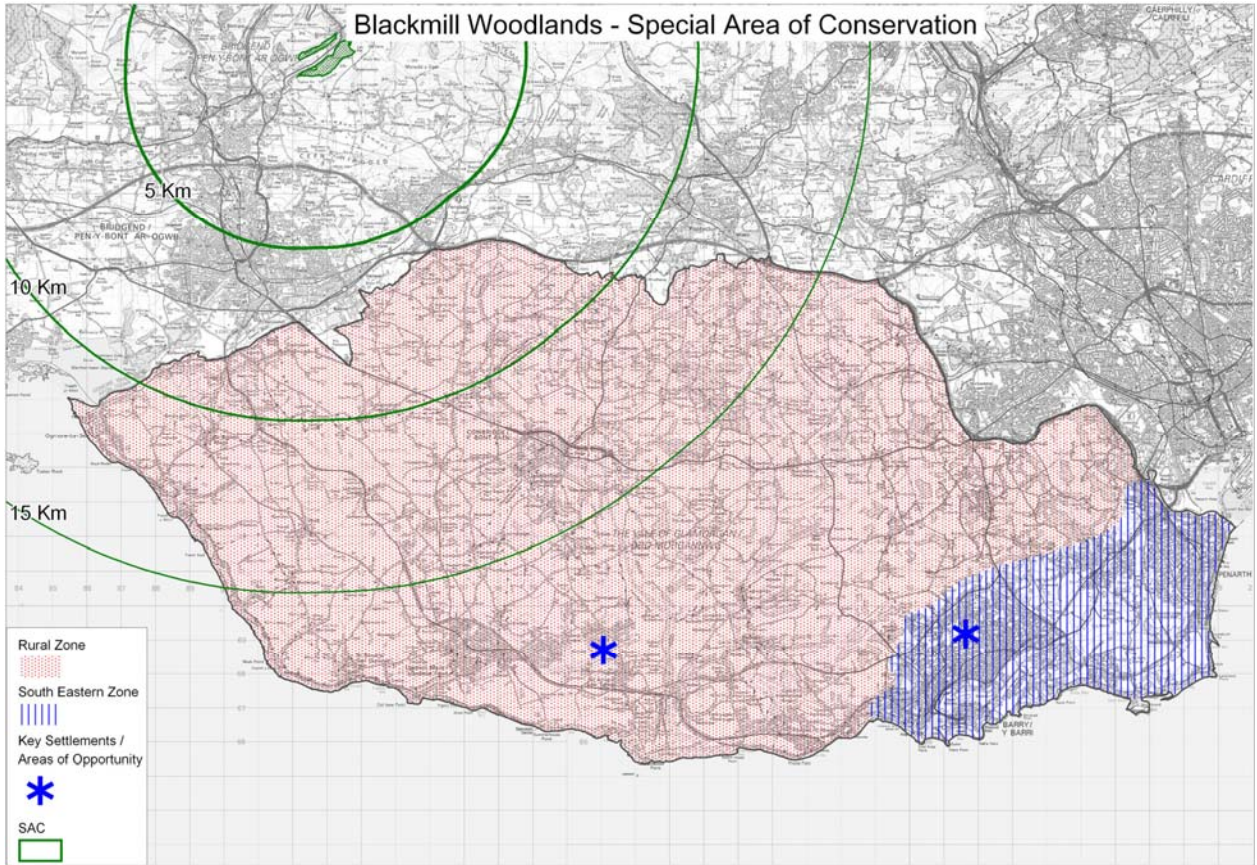
# Appendix 5











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