#### CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES

## **CORE MANAGEMENT PLAN** INCLUDING CONSERVATION OBJECTIVES

## FOR

# GOWER COMMONS SAC (SPECIAL AREA OF CONSERVATION)

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**Approved by: Charlotte Gjerlov** 

More detailed maps of management units can be provided on request. A Welsh version of all or part of this document can be made available on request.









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### **PREFACE**

This document provides the main elements of CCW's management plan for the site named. It sets out what needs to be achieved on the site, the results of monitoring and advice on the action required. This document is made available through CCW's web site and may be revised in response to changing circumstances or new information. This is a technical document that supplements summary information on the web site.

One of the key functions of this document is to provide CCW's statement of the Conservation Objectives for the relevant Natura 2000 site. This is required to implement the Conservation (Natural Habitats, &c.) Regulations 1994, as amended (Section 4). As a matter of Welsh Assembly Government Policy, the provisions of those regulations are also to be applied to Ramsar sites in Wales.

## 1. <u>VISION FOR THE SITE</u>

This is a descriptive overview of what needs to be achieved for conservation on the site. It brings together and summarises the Conservation Objectives (part 4) into a single, integrated statement about the site.

The SAC will be mixture of dry heath, wet heath and marshy grassland peppered with patches of scrub and woodland. Ditches, seepages and ponds will also form part of the site. Flowers scatter the commons with colour from the spring through to the autumn. Insects feed on flowers, and marsh fritillary butterflies will be busy feeding and traversing erratically across the sites. Grassy tussocks of purple moor grass will be clear in the wet heath and marshy grassland but won't be so big that grazing animals can't graze effectively. Shorter patches of grazed plants will form between the larger tussocks, making a varied structure. In the wet heathy areas western gorse, heather and cross-leaved heath will grow closely with the purple moor grass. Eye-catching flowers, like the pink lousewort will stand out against a background of grasses and sedges. Sphagnum mosses will grow beneath the heath, holding moisture like a sponge. Special plants like the insect-eating sundews and yellow bog asphodels like miniature daffodils will grow happily amongst the moss, particularly on the drier tussocks.

Across most of the SAC marshy grassland will be found, closely associated with the wet heath it is the most important habitat for the marsh fritillary butterfly. Its food plant, devil's bit scabious, flowers in the late summer, has purple-blue heads which stand tall in the grassland. Whorled caraway, a plant only found in the west of the British Isles, will be seen displaying its elegant brilliant white flowering heads. Heathy plants will be found in the marshy grassland too – a transition between the two habitats.

Patches of drier heath, often smaller in size, will be found around the Commons. But at Rhossili large stretches of dry heath dominate the top of the Down. With less moisture in the underlying soils, heathy species present here differ slightly to the wetter heath, with more bell heather and less cross-leaved heath. An absence of purple moor grass and sphagnum mosses also tells us that the conditions are drier. Delicate flowers like heath milkwort, tormentil and heath bedstraw typically will decorate these drier areas.

In the summer the Commons will be buzzing with the activity of insects. Bees and butterflies in the daytime and moths mainly at night will take advantage of the many flowering plants. On warm summer days marsh fritillaries will fly over the site. In late summer when their caterpillars hatch and feed-up for the winter, you may be lucky and spot the small black caterpillars in their distinctive webs devouring the leaves of devil's bit scabious. On a summers evening at Rhossili Down and Cefn Bryn bright blue southern damselfly will be seen flying along the seepages and ditches. These small watercourses will have gravelly bottoms and aquatic plants will move with the direction of flow. A keen eye will also spot the black bog ants nests in the wet heathy parts of Rhossili Down.

At Cefn Bryn, Broadpool will support clean water, slightly acidic with healthy populations of aquatic plants and no signs of sediments or eutrophication.

The geological terraces at Rhossili Down will be open for study and not obscured by vegetation.

Cattle and ponies roam will the site and will be seen grazing on the heathland and amongst the marshy grassland.

Birds will feed and nest in the patches of scrub and woodland that fringe a lot of the site.

In the wetter areas like those at Rhossili Down purple moor grass and cotton grass will be found, with bog asphodel adding some colour.

### 2. <u>SITE DESCRIPTION</u>

#### 2.1 Area and Designations Covered by this Plan

Grid reference: SS497900 (this is the centre point of a large SAC)

Unitary authority: City and County of Swansea

Area (hectares): 1776.72 ha

Designations covered:

The Gower Commons SAC is notified as five component SSSIs:

- Cefn Bryn Common SSSI
- Rhossili Down SSSI
- Fairwood, Pengwern and Welshmoor Commons SSSI
- Courthouse Grasslands SSSI
- Sluxton Marsh, Whitemoor SSSI

All of the above SSSIs have been unitised, however this management plan covers the SAC features only.

Detailed maps of the designated sites are available through CCW's web site: http://www.ccw.gov.uk/interactive-maps/protected-areas-map.aspx

For a summary map showing the coverage of this document see separate Unit Map..

#### 2.2 Outline Description

The site was selected as a SAC because of the presence of such large areas of lowland heathland and marshy grassland vegetation and for the presence of populations of the marsh fritillary butterfly and the southern damselfly. The extent of these commons and their relative connectivity means plants and animals have a large area of similar habitat to allow them to move and survive.

The commons support nationally scarce plants like soft-leaved sedge and the geographically restricted whorled caraway. As well as the invertebrate features on the site, there are a number of other invertebrates that rely on the commons to survive. Examples of such species include the black bog ant and a rare cranefly (*Idiocera sexatatta*)

The heathlands have developed on the dry and wetter parts of the site, making up mosaics of grassland and heathland and some scrub. Dry heath survives where the soils are well drained, wet heath can be found where the soil is water logged and transitions develop from wet to dry heath. The wetter soils and flushes support molinia meadows. Wet heath and molina meadows support devil's bit scabious which is the food plant for the marsh fritillary butterfly.

Networks of flushes and natural drainage ditches support the southern damselfly and add a diversity of plants and wildlife to the commons.

#### 2.3 Outline of Past and Current Management

The management of the different commons varies. On the whole they have all supported grazing in recent years (since 2000) they have all been subject to scrub, gorse and bracken management.

Cefn Bryn Common has grazing rights which are fairly well used. Sheep, ponies and cattle graze the site throughout the year, but the grazing is much reduced over the winter. This common was covered by an agri-environment scheme which resulted in a lot of bracken management and rhodedendron removal in the past. This management work did not continue after the agreement ended. Cefn Bryn has been subject to many heath and gorse fires over the years as a method of trying to control thick gorse and create new grazing.

Rhossili Down is grazed by sheep, cattle and ponies, but grazing numbers are too low and the stock are not hefted in the areas where grazing is most needed. The site has been included in the programme of works developed for the Gower Commons Initiative project. Ongoing work includes bracken management, gorse control, firebreak creation and ditch management. Rhossili Down has been burnt for many years, suffering particularly serious illegal burns in 2003 and 2010. The burning is carried in an attempt to control gorse and heather and to create new grazing.

Fairwood Common is well grazed by sheep, cattle and ponies. The grazing levels have been too heavy in the past, particularly the number of sheep. But in recent years the number of cattle has increased and this is very positive for the commons. The site has been included in the programme of works developed for the Gower Commons Initiative/Commons Sense projects. Ongoing work on the commons includes scrub control, stock management – road kill prevention, cattle grid installation, firebreak creation, gorse clearance and bracken control. Burning has been carried out at Fairwood for a number of years. It is used as a tool to manage areas of thick gorse.

Pengwern Common is grazed by cattle and ponies. The grazing levels have probably been suitable for the site in recent years, but it would be helpful if stock could be encouraged into certain areas. Pengwern Common has been included in the programme of works developed for the Gower Commons Initiative/Commons Sense project. Burning has been carried out at Pengwern Common too; again it is carried out to control gorse.

Welshmoor Common is grazed by cattle during the summer. This site has been well maintained in terms of gorse and scrub management in recent years. Pond creation and other management has added to the diversity of the site. There has been some burning carried out at Welshmoor, in an attempt to control gorse and create new grazing.

Courthouse grasslands is an enclosed site which should be grazed with cattle. The site is has marshy grassland habitat and so is important for the marsh fritillary butterfly.

Sluxton Marsh, Whitemoor is an enclosed site which is adjacent to Rhossili Down SSSI. The site is grazed with cattle, there is a scrub management programme and the ditches are cleared periodically to enhance the habitat for southern damselfly.

#### 2.4 Management Units

The plan area has been divided into management units to enable practical communication about features, objectives, and management. This will also allow us to differentiate between the different designations where necessary. In this plan the management units have been based on land ownership, current management and required management.

The following table confirms the relationships between the management units and the designations covered:

Unit	SAC	SSSI	CCW
number			owned
Rhossili Dow	n SSSI		
7	✓	✓	X
8	✓	~	X
9	✓	~	X
10	✓	~	X
Fairwood, Pe	engwern and Wel	lshmoor Com	nons SSSI
1	✓	~	X
2	✓	~	X
3	✓	~	X
5	✓	×	X
6	✓	~	X
Cefn Bryn Co	ommon SSSI		
12	✓	✓	X
13	✓	✓	X
14	✓	×	X
15	✓	×	X
16	~	~	X
17	✓	~	X
Courthouse C	Grassland SSSI		
4	✓	~	X
Sluxton Mars	sh, Whitemoor S	SSI	
11	✓	~	X

## 3. <u>THE SPECIAL FEATURES</u>

## 3.1 Confirmation of Special Features

Designated feature	Relationships, nomenclature etc	Conservation Objective in
SAC fortune		part 4
Annex I habitats that are a primary reason for selection of this site 1. Northern Atlantic wet heaths with Erica tetralix (code: 4010)	Generally referred to as wet heath in this document.	1
Annex I habitats that are a primary reason for selection of this site <b>2.European dry heaths (code:4030)</b>	Generally referred to as dry heath in this document.	2
Annex I habitats that are a primary reason for selection of this site 3. Molinia meadows on calcareous, peaty or clayey-silt-laden soils (code: 6410)	Generally referred to as molinia meadows in this document.	3
Annex II species that are a primary reason for selection of this site Southern damselfly (code: 1044)	Generally referred to as southern damselfly in this document.	4
Annex II species that are a primary reason for selection of this site Marsh fritillary butterfly (code: 1065)	Generally referred to as marsh fritillary butterfly in this document.	5
Annex I habitats present as a qualifying feature, but not a primary reason for site selection		
SSSI features	I	
<ol> <li>Dry heath</li> <li>Wet heath</li> <li>Marshy grassland</li> <li>Marsh fritillary butterfly</li> <li>Southern damselfly</li> <li>A rare cranefly</li> <li>Geomorphological interests</li> <li>Standing water</li> <li>Flush and spring</li> <li><i>Carex montana</i></li> <li>Black bog ant</li> </ol>		

#### **3.2** Special Features and Management Units

This section sets out the relationship between the special features and each management unit. This is intended to provide a clear statement about what each unit should be managed for, taking into account the varied needs of the different special features. All special features are allocated to one of seven classes in each management unit. These classes are:

#### **Key Features**

**KH** - a 'Key Habitat' in the management unit, i.e. the habitat that is the main driver of management and focus of monitoring effort, perhaps because of the dependence of a key species (see KS below). There will usually only be one Key Habitat in a unit but there can be more, especially with large units.

KS - a 'Key Species' in the management unit, often driving both the selection and management of a Key Habitat.

**Geo** – an earth science feature that is the main driver of management and focus of monitoring effort in a unit.

#### **Other Features**

Sym - habitats, species and earth science features that are of importance in a unit but are not the main drivers of management or focus of monitoring. These features will benefit from management for the key feature(s) identified in the unit. These may be classed as 'Sym' features because:

- a) they are present in the unit but may be of less conservation importance than the key feature; and/or
- b) they are present in the unit but in small areas/numbers, with the bulk of the feature in other units of the site; and/or
- c) their requirements are broader than and compatible with the management needs of the key feature(s), e.g. a mobile species that uses large parts of the site and surrounding areas.

 $\mathbf{Nm}$  - an infrequently used category where features are at risk of decline within a unit as a result of meeting the management needs of the key feature(s), i.e. under Negative Management. These cases will usually be compensated for by management elsewhere in the plan, and can be used where minor occurrences of a feature would otherwise lead to apparent conflict with another key feature in a unit.

**Mn** - Management units that are essential for the management of features elsewhere on a site e.g. livestock over-wintering area included within designation boundaries, buffer zones around water bodies, etc.

 $\mathbf{x}$  – Features not known to be present in the management unit.

The tables below sets out the relationship between the special features and management units identified in this plan:

Species have been identified as 'Key' where the management in that unit is driven by the needs of the species. Often though where important species exist, the habitat is still the 'key' management driver because when the habitat is in good condition it can be presumed that the species is also in good condition. This philosophy can work the other way too. Where the species is in good condition it can be presumed that the habitat where it is found is also in good condition.

#### Gower Commons SAC

Gower Commons SAC comprises five component SSSI, Cefn Bryn Common SSSI, Rhossili Down SSSI, Fairwood, Pengwern and Welshmoor SSSI and Courthouse Grasslands SSSI and Sluxton Marsh, Whitemoor SSSI. These sites are included in the Natura 2000 series primarily for the areas of wet heath, dry heath and molinia meadows present and the presence of Southern damselfly and marsh fritillary butterfly.

The sites also host a number of SSSI features, which can be found listed in the tables below.

In general, in the SAC where SAC habitats and species are present they are the main focus for management.

Rhossili Down SSSI is a large dramatic site with the best example of dry heath. The site has a striking position at the end of the Gower peninsular. The site has been managed with cattle, pony and sheep grazing. The site has also previously been managed under the Gower Commons Initiative Project who carried out gorse clearance, bracken clearance, fire-break creation and ditch maintenance. The units reflect the habitats present and the presence of the southern damselfly in the ditches at the east of the site. The whole site is common land, which can present problems with controlling grazing levels on the site and the movement of stock.

Rhossili	Management Units			
Down SSSI	9	8	7	10
SAC	*	*	*	*
SSSI	*	*	*	*
NNR/CCW				
owned				
SAC				
features				
Dry heath		KH	Sym	Sym
Wathaath	VII			
South or		VC		
domaalfly	KS	K2		
Molinio				
mondowa				
Marsh				
fritillary				
SSSI				
features				
Dry heath		кн		
Dry neuti				
Wet heath	KH			
Southern	KS			
damselfly				
Blackbog	Sym			
Ant	-			
Geomorphol		Sym	Geo	Geo
ogical		-		
interests				

#### Fairwood, Pengwern and Welshmoor SSSI

Fairwood, Pengwern and Welshmoor SSSI is the one of the largest of the component SSSIs. The site is made up of three distinct commons. Fairwood is the largest common. All units are both SSSI and SAC. The units are split on the basis of ownership, but the site is largely one unit which reflects the fact that the site is unenclosed common land and grazing isn't controlled by field boundaries.

Fairwood, Pengwern	Managem	ent Unit	ts		
Welshmoor SSSI	1	2	5	3	6
SAC	*	*	*	*	*
SSSI	*	*	*	*	*
NNR/CCW					
owned					
SAC					
features					
Dry heath	Sym		Sym		
Wet heath	Sym	Sym	KH	KH	KH
Molinia		KH	Sym	Sym	Sym
meadows					
Southern					
damselfly					
Marsh	KS	KS	KS	KS	KS
fritillary					
SSSI					
features					
Dry heath	Sym		Sym		
Wet heath		Sym	KH	KH	KH
Molinia		KH	Sym	Sym	Sym
meadows					
Marsh	KS	KS	KS	KS	KS
Fritillary					

#### Cefn Bryn SSSI

Cefn Bryn SSSI is the largest of the component SSSIs. It is a single large expanse of open common land. The common is grazed by cattle, ponies and sheep and although historically not included in the Gower Commons Initiative has benefited from some work by the Initiative. The common is split into units based on land ownership. All of the units are within both the SSSI and the SAC. Cefn Bryn SSSI is currently part of the Tir Gofal agri-environment scheme.

Cefn Bryn Common	Management unit					
2221	16	12	13	14	15	17
SAC	*	*	*	*	*	*
SSSI	*	*	*	*	*	*
NNR/CCW owned						
SAC features						
Dry heath	KH	Sym	Sym	Sym	Sym	
Wet heath	Sym	KH	KH	KH	KH	
Molinia meadows	Sym					
Southern damselfly	KS					
Marsh fritillary						
SSSI features						
Dry heath	KH	Sym	Sym	KH	KH	
Wet heath	Sym	KH	КН	KH	KH	
Flush and spring	KH	Sym	Sym			
Standing water						KH
Southern damselfly	KS					
A rare cranefly		KS	KS			

#### **Courthouse Grassland SSSI**

Courthouse Grassland SSSI\_is the one of the smallest component SSSI and is not common land. The land is divided into fields with boundaries, however the grazing management is the same throughout the site so there is only one management unit.

Courthouse	Management
Grasslands SSSI	Unit
	4
SAC	*
SSSI	*
NNR/CCW	
owned	
SAC features	
Dry heath	
Wet heath	Sym
Southern	
damselfly	
Molinia meadows	КН
Marsh fritillary	KS
SSSI features	
Molinia meadows	КН
Marsh Fritillary	KS
Neutral grassland	Sym

#### Sluxton Marsh, Whitemoor SSSI

Sluxton is a small site situated next to Rhossili Down SSSI, the two sites complement each other. The site is made of marshy grassland/wet heath mosaics and ditches which support southern damselfly.

Sluxton Marsh,	Management
Whitemoor SSSI	Unit
	11
SAC	*
SSSI	*
NNR/CCW	
owned	
SAC features	
Dry heath	
Wet heath	
Southern	KS
damselfly	
Molinia meadows	KH
Marsh fritillary	
SSSI features	
Molinia meadows	КН
Southern	KS
Damselfly	

### 4. <u>CONSERVATION OBJECTIVES</u>

#### **Background to Conservation Objectives:**

#### a. Outline of the legal context and purpose of conservation objectives.

Conservation objectives are required by the 1992 'Habitats' Directive (92/43/EEC). The aim of the Habitats Directives is the maintenance, or where appropriate the restoration of the 'favourable conservation status' of habitats and species features for which SACs and SPAs are designated (see Box 1).

In the broadest terms, 'favourable conservation status' means a feature is in satisfactory condition and all the things needed to keep it that way are in place for the foreseeable future. CCW considers that the concept of favourable conservation status provides a practical and legally robust basis for conservation objectives for Natura 2000 and Ramsar sites.

#### Box 1

## Favourable conservation status as defined in Articles 1(e) and 1(i) of the Habitats Directive

"The conservation status of a natural habitat is the sum of the influences acting on it and its typical species that may affect its long-term natural distribution, structure and functions as well as the long term survival of its typical species. The conservation status of a natural habitat will be taken as favourable when:

- Its natural range and areas it covers within that range are stable or increasing, and
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable.

The conservation status of a species is the sum of the influences acting on the species that may affect the long-term distribution and abundance of its populations. The conservation status will be taken as 'favourable' when:

- population dynamics data on the species indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis."

Achieving these objectives requires appropriate management and the control of factors that may cause deterioration of habitats or significant disturbance to species.

As well as the overall function of communication, conservation objectives have a number of specific roles:

• Conservation planning and management.

The conservation objectives guide management of sites, to maintain or restore the habitats and species in favourable condition.

• Assessing plans and projects.

Article 6(3) of the 'Habitats' Directive requires appropriate assessment of proposed plans and projects against a site's conservation objectives. Subject to certain exceptions, plans or projects may not proceed unless it is established that they will not adversely affect the integrity of sites. This role for testing plans and projects also applies to the review of existing decisions and consents.

• Monitoring and reporting.

The conservation objectives provide the basis for assessing the condition of a feature and the status of factors that affect it. CCW uses 'performance indicators' within the conservation objectives, as the basis for monitoring and reporting. Performance indicators are selected to provide useful information about the condition of a feature and the factors that affect it.

The conservation objectives in this document reflect CCW's current information and understanding of the site and its features and their importance in an international context. The conservation objectives are subject to review by CCW in light of new knowledge.

#### **b.** Format of the conservation objectives

There is one conservation objective for each feature listed in part 3. Each conservation objective is a composite statement representing a site-specific description of what is considered to be the favourable conservation status of the feature. These statements apply to a whole feature as it occurs within the whole plan area, although section 3.2 sets out their relevance to individual management units.

Each conservation objective consists of the following two elements:

- 1. Vision for the feature
- 2. Performance indicators

As a result of the general practice developed and agreed within the UK Conservation Agencies, conservation objectives include performance indicators, the selection of which should be informed by JNCC guidance on Common Standards Monitoring<sup>1</sup>.

There is a critical need for clarity over the role of performance indicators within the conservation objectives. A conservation objective, because it includes the vision for the feature, has meaning and substance independently of the performance indicators, and is more than the sum of the performance indicators. The performance indicators are simply what make the conservation objectives measurable, and are thus part of, not a substitute for, the conservation objectives. Any feature attribute identified in the performance indicators should be represented in the vision for the feature, but not all elements of the vision for the feature will necessarily have corresponding performance indicators.

<sup>&</sup>lt;sup>1</sup> Web link: <u>http://www.jncc.gov.uk/page-2199</u>

As well as describing the aspirations for the condition of the feature, the Vision section of each conservation objective contains a statement that the factors necessary to maintain those desired conditions are under control. Subject to technical, practical and resource constraints, factors which have an important influence on the condition of the feature are identified in the performance indicators.

#### **4.1 Conservation Objective for Feature 1:** Northern Atlantic wet heaths with *Erica tetralix* (code: 4010)

#### Vision for Feature 1

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- The wet heath will be found on moist and generally acidic soils across the commons.
- The wet heath will be characterised by western gorse growing amongst cross-leaved heath and purple moor grass. The gorse will be low growing and does not seem to dominate the heath. The yellow of the gorse and the pink of the cross-leaved heath make a spectacular display. Pink lousewort will be seen growing amongst the mixture of gorse and heath, with grasses and sedges weaving their way through the mix of species such as cotton grass, heath bedstraw, heath milkwort, flea sedge and carnation sedge.
- Sphagnum mosses grow beneath the heath, holding moisture like a sponge. Plants capable of growing in certain very wet areas associated with wet heath like bog asphodel and the insecteating sundews will also be found as you walk around the wet heath.
- The wet heath is not poached by grazing animals, but is evenly and sensitively grazed. There are no invasive species like Rhododendron or Japanese Knotweed growing in the wet heath and willow and birch are found only very thinly scattered throughout the site, mainly on the edges.

All factors affecting the achievement of these conditions are under control.

#### **Performance indicators for Feature 1**

The performance indicators are <u>part of</u> the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators.

Performance indicators		To maintain the <i>wet heath</i> feature of Gower Commons in favourable condition the following criteria should				
		be met:				
Extent	Unner limit	None set				
LAtent	Lower limit	As mapped (Prosser & Wallace 1998). These maps are provided in Appendix 3				
Quality	Lower limit	• Fairwood Common – 50% of samples in plots 1, 2 and 3 and 60% of samples in plot 4 are referable 'good condition wet heath'				
		• Pengwern Common – 70% of samples in plots 1 and 2 are referable to 'good condition wet heath'				
		• Welshmoor – 70% of samples in plot 1 are referable to 'good condition wet heath'				
		• Rhossili Down – 50% of samples in plot 1 and 70% of samples in plots 2 and 3 are referable to 'good condition wet heath'				
		• Cefn Bryn – 70% of samples in plots 1, 2 and 3 are referable to 'good condition wet heath'				
		• Stages of <i>Calluna</i> growth – target to be developed				
		• <1% of the feature on each common should show signs of extensive and heavy disturbance				
		• Amount of bracken and scrub with in the wet heath on each common – target to be developed				
	I	Definitions				
Wet	heath	Vegetation overlying a peat substrate with <i>Erica tetralix</i> , <i>Calluna vulgaris</i> and <i>Molinia caerulea</i> . <i>Sphagna</i> spp. or <i>Scripus cespitosus</i> are usually present. Within a 1m radius ericoid cover is usually 10% or greater.				

Good condition wet heath	Within any 1m radius:			
	• Dwarf shrub cover is >25%			
	• Two or more species of dwarf shrub are present			
	• Ulex gallii cover is <50% of the total dwarf shrub cover			
	• Sphagna cover is >10%			
	• <i>Molinia caerulea</i> cover is <50%			
	<ul> <li>Total cover of graminoids indicative of drying out is &lt;25%</li> </ul>			
	Negative indicator species are absent			
Extensive and heavy	Vehicles tracks, fly tipping and excessive poaching. Artificial drains, silt or leachate			
disturbance				
Dwarf shrub	<i>Calluna vulgaris, Erica cinerea, Erica tetralix, Ulex gallii</i> and <i>Vaccinium myrtillus. Myrica gale</i> is not included as a dwarf shrub.			
Graminoids indicative of	Nardus stricta, Agrostis spp. (including curtisii), Festuca spp, Deschampsia flexuosa etc.			
drying out				
Negative species	Saplings or trees of any species, Rubus spp., Ulex europeaus, Pteridium aquilinum, any non-native species, tall			
	Juncii and Juncus squarrosus			
Tall Juncii	Juncus effusus, Juncus conglomeratus and Juncus acutiflorus.			

For more detail on the monitoring methods and sample plot locations, please see the monitoring reports produced by CCW Monitoring Staff in 2003 and 2010.

#### 4.2 Conservation Objective for Feature 2: European dry heaths (code: 4030)

#### Vision for Feature 2

- The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
- Dry heath is found on the free-draining parts of the commons. In some parts of the SAC dry heath grows in large continuous areas like at Rhossili Down, in other parts of the SAC, the dry heath grows in mosaics with wet heath and acid grassland. Bell heather and cross-leaved heath grow along side European and western gorse. There is a lack of purple moor grass and sphagnum mosses which tell us that the heath is drier. Heath milkwort, tormentil and heath bedstraw are seen regularly decorating the dry heaths.
- Scrub like birch and overgrown gorse is rare with the dry heaths, except where island of scrub provide some shelter for grazing animals. These islands will be accepted within the heathland landscape.
- Bracken is present within the dry heath and grows around the edges but bracken never dominates stands of dry heath and does not encroach on the dry heath.
- Burning of the heath is only carried out as a controlled management technique to create a mosaic of different ages of heath. There are no signs of burning causing damage or causing bracken to spread.

#### **Performance indicators for Feature 2**

The performance indicators are <u>part of</u> the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators.

Performance indicators		To maintain the dry heath feature of Gower Commons in favourable condition the following criteria should				
		be met:				
Extent	Upper limit	None set				
	Lower limit	As mapped (Prosser & Wallace 1998). These maps are provided in Appendix 3				
Quality	Lower limit	• Rhossili Down - In plots 1 & 6 50%, in plot 3 60% and in plots 2, 3, 4, 5 and 7 70% of the samples will be referable to good condition dry heath. Within each plot <40% of the samples should consist of a high cover of dwarf shrubs.				
		• Cefn Bryn – In plots 1 and 4 50% and in plots 2, 3, 5 and 6 70% of the vegetation will be referable to good condition dry heath. Within each plot <40% of the samples should consist of a high cover of dwarf shrubs.				
		• Stages of <i>Calluna</i> growth – 30% of the dry heath on Rhossili Down and Cefn Bryn should be mature/degenerate heath.				
		• <1% of the feature on Rhossili Down and Cefn Bryn should show signs of extensive and heavy disturbance.				
		• Amount of bracken and scrub with in the dry heath on Rhossili Down and Cefn Bryn – target to be developed.				
		Definitions				
Dry heath Where within a 1m radius dwarf shrub cover is greater than 10% and <i>Scirpus cespitosus</i> and <i>Sphagna</i> a		Where within a 1m radius dwarf shrub cover is greater than 10% and <i>Scirpus cespitosus</i> and <i>Sphagna</i> are absent.				

Good condition dry heath	Within any 1m radius:				
	• Dwarf shrub cover is >50%				
	• Two or more species of dwarf shrub are present				
	• Ulex gallii cover is <50% of the total dwarf shrub cover				
	• <i>Molinia caeruluea</i> cover is <40%				
	• Total cover of 'dry' graminoids is <25%				
	Negative indicator species are absent				
Mature heath/degenerate	Where the heather plants are either				
heath	• Woody with thick stems and fewer green shoots. The heather canopy begins to open up and other plant				
	species, especially mosses, begin to increase in cover.				
	• Dying back, with central branches dying off, creating gaps in the centre of the bush in which heather				
	seedlings may sometimes establish				
	(CSM lowland heathland guidance, 2004)				
High cover of dwarf	Where dwarf shrub cover is >90%				
shrubs					
Extensive and heavy	Vehicles tracks, fly tipping and excessive poaching. Artificial drains, silt or leachate				
disturbance					
Dwarf shrub	Calluna vulgaris, Erica cinerea, Erica tetralix, Ulex gallii and Vaccinium myrtillus.				
Graminoids indicative of	Nardus stricta, Agrostis spp. (including curtisii), Festuca spp, Deschampsia flexuosa etc.				
drying out					
Negative species	Saplings or trees of any species, <i>Rubus</i> spp., <i>Ulex europeaus</i> , <i>Pteridium aquilinum</i> , any non-native species and tall <i>Juncii</i>				
Tall Juncii	Juncus effusus, Juncus conglomeratus and Juncus acutiflorus.				

For more detail on the sample plots used, please see the monitoring report produced by CCW Monitoring Staff in 2003 and 2010.

#### 4.3 Conservation Objective for Feature 3: *Molinia* meadows on calcareous, peaty or clayey siltladen-soils (code: 6410)

#### Vision for feature 3

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

On the wettest ground, marshy grassland will be found; it will often be found growing in a mosaic with wet heath.

- The marshy grassland will be dominated by tussocks of purple moor grass. The tussocks will provide little sheltered areas where flowers grow and help to provide some shelter for the marsh fritillary butterfly.
- The tussocks are uneven in size, but there will always be young purple moor grass coming though each spring. Only a few of the tussocks will have old and 'rank' purple moor grass growing on them.
- Devil's bit scabious, the food plant for the larvae of marsh fritillary butterflies will be found commonly growing amongst the purple moor grass. Whorled caraway and soft leaved sedge are both scarce plants that will be commonly found in the marshy grassland areas.
- Often heathy plants like cross-leaved heath and gorse will be found in marshy grassland this is a transition area between the two habitats.

#### Performance indicators for Feature 3

The performance indicators are <u>part of</u> the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators.

Performance indicators		The <i>Molinia</i> meadows of Gower Commons SAC will be in favourable condition when:
Extent	Upper Limit	None set
	Lower Limit	As mapped in 1997. Refer to Maps 1, 2 and 3 in note 'Assessment of the condition of the
		Molinia meadows feature of Gower Commons SAC: Monitoring Round 2 (2007 to 2012)'
		(K. Wilkinson, CCW, 2011).
Quality	Upper Limit	None set
	Lower Limit	For the <i>Molina</i> meadows to be favourable <b>each stand</b> will meet the target set:
		Pengwern Common
		1) In stands A and B 50% of the grassland is referable to species rich fen meadow
		2) In stand C an area of species rich fen meadow greater than 5 x 5 m is present
		Fairwood Common
		3) In stands D, E and F 50% of the grassland is referable to species rich fen meadow
		4) In stands G, H and I an area of species rich fen meadow greater than 5 x 5 m is present
		Welshmoor
		5) In stands J, K and L 50% ( <b>provisional target</b> ) of the vegetation is referable to species rich fen meadow
		Cofe During
		Cell Bryn 6) In stands M and N an area of spacing righ fan mandau graater than 5 y 5 m is present
		6) In stands w and N an area of species fich fen meadow greater than 5 x 5 m is present
		Court House
		Targets to be determined
		Sluxton Marsh
		Targets to be determined

	The locations of stands A-N are shown on Maps 4, 5 and 6.			
Site Specific Habitat Definitions				
Molinia meadows	Grassland where, within 1m of any point, Molinia caerulea is present along with at least one of the following:			
	Cirsium dissectum, Carex pulicaris or Carex hostiana (not Carex x fulva)			
Species rich fen	<i>Molinia</i> meadows where within any 1 m radius all of the following criteria are met:			
meadow	• At least two of the following positive indicators are present: Succisa pratensis, Carum verticillatum, Erica			
	tetralix, Anagallis tenellum, Narthecium ossifragum, Salix repens and Cirsium dissectum			
	• At least 2 areas greater than 30cm diameter are present in which the sward height is between 1 and 10cm			
	(measured using a Borman's disc)			
	• The following species are absent: scrub (Betula spp., Quercus spp., Salix spp. (excluding Salix repens), Alnus			
	glutinosa, Rubus spp. and Ulex spp.), Pteridium aquilinum, Trifolium repens and Ranunculus repens			
	• <i>Molinia</i> cover is between 25% and 75%			
	• Juncus spp. cover is less than 30%			

#### 4.4 Conservation Objective for Feature 4: Southern damselfly (code: 1044)

#### Vision for feature 4

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- Seepages and runnels at Rhossili Down, Cefn Bryn and Sluxton Marsh will be well maintained, clear and pollution free.
- They will support good numbers of native aquatic plants.
- On summer days each year southern damselflies will be seen darting over the seepages and runnels.
- Each year the population of southern damselflies will stay the same or increase.

#### **Performance indicators for Feature 4**

The performance indicators are <u>part of</u> the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators.

Site based performance indicators		To maintain <i>C. mercuriale</i> of Gower Commons SAC in favourable condition the following criteria should be met:		
Population	Upper Limit	None set.		
	Lower Limit	There is at least one male <i>C. mercuriale</i> per 10 square metres of breeding habitat both on Cefn Bryn and Rhossili Down/Sluxton Marsh.		
Habitat extent and quality Upper Limit		None set.		
	Lower Limit	There are at least 550 square metres of breeding habitat on Cefn Bryn and 500 square metres of breeding habitat Rhossili/Sluxton.		
Site Specific Habitat Definitions				
Breeding habitat		Where patches of oviposition plants are present as more than 20% cover over areas greater than 0.5 square metres and no more than 20% of the total cover is greater than 15cm tall.		
Oviposition plants		Menyanthes trifoliata, Hypericum elodes, Potamogeton polygonifolius and Apium nodiflorum.		

#### 4.5 Conservation Objective for Feature 5: Marsh fritillary butterfly (code:1065)

#### Vision for feature 5

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- The site will contribute towards supporting a sustainable metapopulation of the marsh fritillary on Gower. This will require a minimum of 50ha of suitable habitat, of which at least 10ha must be in good condition. Some will be on nearby land within a radius of about 2km.
- The population will be viable in the long term, acknowledging the extreme population fluctuations of the species.
- Habitats on the site will be in optimal condition to support the metapopulation.
- At least 50ha of the total site area within the SAC & associated SSSI will be marshy grassland suitable for supporting marsh fritillary, with *Succisa pratensis* present and only a low cover of scrub.
- At least 10ha will be good marsh fritillary breeding habitat in good condition, dominated by purple moor-grass *Molinia caerulea*, with *S. pratensis* present throughout and a vegetation height of 10-20cm over the winter period.
- Suitable marsh fritillary habitat is defined as stands of grassland where *Succisa pratensis* is present and where scrub more than 1 metre tall covers no more than 10% of the stands
- Optimal marsh fritillary breeding habitat will be characterised by grassland where the vegetation height is 10-20 cm, with abundant purple moor-grass *Molinia caerulea*, frequent "large-leaved" devil's-bit scabious *Succisa pratensis* 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. (Fowles 2004<sup>2</sup>)
- The marshy grassland will be well sheltered by hedgerows and mature trees.
- All factors affecting the achievement of the foregoing conditions are under control.

<sup>&</sup>lt;sup>2</sup> Fowles AP (2004) Conservation objective for Marsh Fritillaries on marshy grassland. CCW internal document.

#### **Performance indicators for Feature 5**

The performance indicators are <u>part of</u> the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators.

Performance indicators for favourable		The marsh fritillary population of Gower Commons SAC will be in favourable condition when:	
condition			
Density of larval	Upper Limit	Not required	
webs	Lower Limit	In one year in six the number of larval webs is estimated to be:	
		At least 200 per hectare of good condition habitat	
Extent of marsh	Upper Limit	Not required	
fritillary habitat	Lower Limit	Within the SAC there are at least 50 ha of available habitat, of which at least 10 ha will be referable to	
		good condition marsh fritillary habitat.	
		Site specific definitions	
Good condition habitat		Grassland, with Molinia abundant where, for at least 80% of sampling points, the vegetation height is	
		within the range of 10 to 20 cm (when measured using a Borman's disc) and Succisa pratensis is	
		present within a 1 m radius. Scrub (>0.5 metres tall) covers no more than 10% of area.	
Suitable habitat		Stands of grassland where <i>Succisa pratensis</i> is present at lower frequencies but still widely distributed	
		(>5% of sampling points) throughout the habitat patch and in which scrub (>0.5 metre tall) covers no	
		more than 25% of area. Alternatively, Succisa may be present at high density in close-cropped swards.	
Available habitat		Available habitat is the total of good condition and suitable habitat	

### 5. ASSESSMENT OF CONSERVATION STATUS AND MANAGEMENT REQUIREMENTS

This part of the document provides:

- A summary of the assessment of the conservation status of each feature.
- A summary of the management issues that need to be addressed to maintain or restore each feature.

## 5.1 Conservation Status and Management Requirements of Feature 1: Northern Atlantic wet heaths with *Erica tetralix* (code: 4010)

#### **Conservation Status of Feature 1**

The condition of the wet heath of the Gower Commons was reported as **Unfavourable** in October 2008.

This assessment was based upon data collected from Rhossili (repeat of 1 plot) and two new plots, Fairwood (repeat of 2 plots) along with two new plots, Pengwern (repeat of 1 plot) and the monitoring of one new plot and finally Welshmoor (repeat of LIFE plot). The condition of the habitat within these plots is thought to reflect the condition of the habitat on the remaining un-sampled areas of wet heath.

#### Fairwood, Pengwern and Welshmoor Commons SSSI (units 960, 961, 962, 964, 965)

Wet heath monitoring plots were carried out at Fairwood (4 plots), Pengwern (2 plots) and Welshmoor (1 plot). The reason the habitat was recorded as unfavourable was due to the low cover of ericoids and Sphagna. In addition, the cover of *Ulex gallii* and Molinia is also too high in some areas. The cover of dry grasses is generally considered to be within the limits set, and are not considered to be a problem.

#### Rhossili Down SSSI (units 966, 967, 968, 969)

The cover of grasses, proportion of *Ulex gallii*, and frequency of scrub are within limits and not considered to be a problem. Sphagna cover is too low, but higher on this site than other commons. Molinia cover is variable and dwarf shrub cover is thought to be favourable. The wet heath at Rhossili proved to be closer to the required condition than the other commons in 2008. However, due to the extensive illegal burn which took place in 2010 – this may now, not be the case?

#### **Management Requirements of Feature 1**

The current status of feature 1 is **Unfavourable**. The principle reasons for this are that the cover of dwarf shrubs are too low and cover of sphagnum is too low. While the cover of Molinia is too high and in some instances the cover of *Ulex gallii* is too high.

#### Fairwood, Pengwern and Welshmoor SSSI

#### Grazing

Currently this site is grazed with cattle, ponies and sheep. The proportion of cattle has increased in the last 5 years. Ideally the site should be grazed with a mixed stock of cattle and ponies with few or no sheep. However in combination with cattle and ponies, sheep can be accepted on the commons.

Fairwood Common has been overgrazed by sheep for a number of years, and undergrazed by cattle and ponies. This has left the site with an abundance of purple moor grass which stock do not tend eat unless young and tender.

Old stands of purple moor grass also prove to be a fuel for illegal fires which are frequent at these sites.

At Pengwern, cattle and ponies make up most of the grazing animals. This mixture of stock is ideal for the common. Cattle and pony grazing should continue however hefting the stock to where the grazing is most required should be an important part of the stock management here.

At Welshmoor the site is grazed with cattle, which is the best type of grazing for this site. Cattle grazing between April and October at a suitable grazing rate should continue.

Agri-environment schemes may be a suitable mechanism to ensure appropriate grazing and management across the sites.

#### Scrub and bracken

Some species of scrub are part of the habitat mixture that make up the wet heath, however European Gorse, willow, birch and bracken are species that indicate that the site might be drying out or that the grazing levels are too low. On this site a lot of scrub, gorse and bracken management has taken place through the Gower Commons Initiative/Commons Sense and the National Trust. The management of scrub and bracken should continue as it re-grows, however an appropriate grazing regime should mean that scrub and bracken growth requires less intervention. Scrub control should seek to break up large uniform blocks of older gorse/scrub in order to create separate and distinctive "islands" of different ages. This will reduce the fire risk and provide valuable habitat and nectar sources.

#### Burning

It is CCWs view that burning should not be used as a management technique on wet heaths, cutting is the preferred method of vegetation control. Burning has occurred across these sites for a number of years, the practice was carried out traditionally to improve the grazing for stock. However, it is recognised that without appropriate grazing following a burn, burning can encourage gorse and bracken to grow. Burning is also difficult to control and can quickly cause damage to sensitive areas. It is important to work with the graziers, the local fire service, landowners and other relevant parties to ensure that burning is only carried out in agreed areas, at the right time of year and is fully under control.

Requests to carry out burning should comply with the Heather and Grass Burning Regulations 2008 and any other related legal requirements, laid down in the Burning Code. A Burning Plan should be submitted with any request, which outlines a medium to long-term approach to burning and management across the site.

#### **Invasive species**

The encroachment of bracken and scrub is covered under Scrub and Bracken. Rhododendron has been found to grow at Pengwern Common; although it tends to grow at the edges where it spreads from neighbouring woodland it could threaten the wet heath if saplings take hold. It is important to put in place a Rhododendron removal programme and to work with land-owners where the seed sources grow to, in the first instance, at least eliminate this species from the immediate area around the SSSI.

#### Rhossili Down

Currently this site is grazed with cattle, ponies and sheep. The proportion of cattle has increased in the last 5 years. Ideally the site should be grazed with a mixed stock of cattle and ponies with few or no sheep. However in combination with cattle and ponies, sheep can be accepted on the commons.

The number of stock varies at the site, with a higher number of stock being seen following the fire in 2010. However, generally numbers have been too low and work is needed to encourage graziers to put cattle on site, through offering management agreements.

The lack of targeted cattle grazing can leave the site with some areas of overgrown purple moor grass, which is not preferentially grazed by stock unless it is young and tender.

Old stands of purple moor grass also prove to be a fuel for illegal fires which are frequent at these sites. The site has been the site of large scale several large scale fires in recent years; particularly in 2010. The scale of these burns has meant that no managed or controlled burns should be considered for at least 5-7 years, depending on recovery.

#### Burning

It is CCW's view that burning should not be used as a management technique on wet heaths, and cutting is the preferred method of vegetation control. Burning has occurred across these sites for a number of years, the practice was carried out traditionally to improve the grazing for stock. However it is recognised that without appropriate grazing following a burn, burning can encourage gorse and bracken to grow. Burning is also difficult to control and can quickly cause damage to sensitive areas. Unauthorised burning of the dry heath has caused serious damage at Rhossili Down, there is a danger that uncontrolled burning of dry heath could spread into wet heath causing long term damage. It is important to work with the graziers to ensure that burning is only carried out in agreed areas, at the right time of year and is fully under control. As previously mentioned, a large scale illegal burn took place in 2010 and has meant that the recover of the burnt areas, is likely to take several years.

#### Air Quality (all sites)

An increase in nitrogen deposition will lead to altered vegetation mosaics, ultimately changing the habitat type.

Where acidification of heathland habitat occurs, impacts on plant and lower plant health are problems.

Critical loads and levels of have been defined where possible (www.apis.ac.uk) for the conservation features of the European site.

If particularly damaging, point sources (or groups of point sources) can be identified, then emissions should be regulated to minimise the impacts. This is particularly important in areas where background levels are already exceeded or close to exceedance, where there is a requirement to reduce potential impacts not only by reducing existing pollution but also by ensuring that the potential for additional atmospheric inputs are minimised. It is also important for wider measures, such as local and national policy to take air pollution (impacts) at these sites into account.

## **5.2** Conservation Status and Management Requirements of Feature 2: European dry heaths (code: 4030)

#### **Conservation Status of Feature 2**

Monitoring that took place in 2008 concluded that the dry heath was in: Unfavourable condition.

Sample plots were recorded at Cefn Bryn Common SSSI and Rhossili Down SSSI. Fairwood, Pengwern and Welshmoor Commons SSSI is also known to have dry heath however these sites were not chosen for sampling as the areas of habitat are so small.

#### Cefn Bryn (units 976, 972, 973, 974, 975, 977)

The dry heath on Cefn Bryn was originally monitored in 2003 and two sample plots were created at the time. In 2008 these were repeated and an additional four sample plots were established and recorded.

The main reason for Cefn Bryn being recorded as unfavourable is due to the lack of dwarf shrub cover (in 4 out of 6 plots), cover of graminoids (in 5 out of 6 plots) and to a lesser extent the proportion of *Ulex gallii* (2 out of 6 plots). Dry grass cover being too high is also recorded as a factor in the majority of the plots.

#### Rhossili Down (unit 966)

Due to the scale of the illegal burn of dry heath in 2002/2003 – the re-growth is now of a similar age and is mapped as pioneer/building in the 2008 survey. The amount of mature/degenerate heath is limited and below the set target. This lack of age diversity is an issue and following the illegal burn in 2010, this is likely to have exacerbated the issue.

The 2008 survey noted that while four out of the six plots failed to meet the targets set for the proportion of vegetation to be in good condition. However, it did state that none of these were far off meeting the required standard. Unfortunately, due to the large scale illegal burn of 2010 -this statement may now not be true.

#### Management Requirements of Feature 2

#### Grazing

Grazing is a traditional practice across the commons, and it is the reason that the commons are such special places. It is important that grazing continues at Cefn Bryn. There is an active commoners committee who manage the site by grazing. Currently cattle, sheep and ponies graze the common. Ideally the common will be grazed by cattle and ponies, but sheep can also be used, providing they are part of a mixed stock.

Cefn Bryn has probably been overgrazed by sheep in the past and undergrazed by cattle and ponies.

Therefore, it is important that cattle and ponies graze the site and that grazing is secured into the future. Since Cefn Bryn has entered the Tir Gofal agri-environment scheme, the numbers of cattle grazing the site appear to have increased. However, the agreement is due to end in 2013. It is hoped that another agri-environment scheme may be able to continue with appropriate management of the site, after this point.

Currently Rhossili is grazed with cattle, ponies and sheep. The proportion of cattle has increased in the last 5 years. Ideally the site should be grazed with a mixed stock of cattle and ponies with few or no sheep. The number of stock is generally too low at the present time at Rhossili and work is needed to encourage graziers to put cattle on site, this is likely to by offering management agreements.

Currently Fairwood, Welshmoor and Pengwern SSSI site is grazed with cattle, ponies and sheep. The proportion of cattle has increased in the last 5 years. Welshmoor is grazed with cattle and Pengwern is grazed with cattle and ponies. Fairwood common has been overgrazed by sheep for a number of years, and undergrazed by cattle and ponies.

Agri-environment schemes may be a suitable mechanism to ensure appropriate grazing and management across the sites.

#### Burning

As with most of the other commons on Gower, Cefn Bryn common, Rhossili Down and Fairwood, Pengwern and Welshmoor have been traditionally burned to try to improve the quality of the grazing for stock. CCW's view is that burning dry heath can be a form of management where it is part of an agreed burning plan.

Cefn Bryn has been subject to unauthorised burns for a number of years. This has left parts of the site damaged. At Rhossili Down in 2003 and 2010 severe fires caused serious damage to the dry heath, parts of the site are recovering well, others will probably never return to heathland. The burning seems to have increased the amount of bracken at the site, which itself now requires management.

Burning the heathland at Fairwood Common, has probably resulted in a grassy heath with only small patches of typical dry heath.

Nevertheless, any requests to carry out burning should comply with the Heather and Grass Burning Regulations 2008 and any other related legal requirements, laid down in the Burning Code. A Burning Plan should be submitted with any request, which outlines a medium to long-term approach to burning and management across the site.

#### Scrub and bracken

Scrub and bracken encroachment is a natural process on dry heaths where grazing limits are too low, where sheep grazing is high but heavy stock numbers low, or where manual clearance programmes are not undertaken. At Cefn Bryn both scrub and bracken clearance was part of a ten-year agrienvironment agreement. At Rhossili Down both scrub and bracken clearance has been carried out across a number of years. It is vital that this clearance continues to prevent any further loss of dry heath. At Fairwood both scrub and bracken clearance have been carried out across a number of years by the Gower Commons Initiative/Commons Sense. In particular, large areas of scrub and patches of woodland have been cleared. Scrub control should seek to break up large uniform blocks of older gorse/scrub in order to create separate and distinctive "islands" of different ages. This will reduce the fire risk and provide valuable habitat and nectar sources.

Bracken rolling or cutting are both effective management tools to reduce the cover of bracken. Gorse and scrub is best cut by mechanical means or by hand and taken off site. Removal and control of scrub and bracken protects the dry heath from encroachment and increases the amount of grazing available to stock. The Gower Commons Initiative/Commons Sense have previously reported that reducing the cover of bracken has reduces the tics on sheep and so reduced the costs of treating the stock for tics.

#### Invasive species

Rhododendron saplings grow within the dry heath on parts of Cefn Bryn. It spreads from a neighbouring forestry site. The Rhododendron needs to be cut and treated. It is also important to work with the neighbouring owners of the forestry to treat the mature Rhododendrons which are threatening parts of the site.

#### Air Quality (All sites)

An increase in nitrogen deposition will lead to altered vegetation mosaics, ultimately changing the habitat type.

Where acidification of heathland habitat occurs, impacts on plant and lower plant health are problems.

Critical loads and levels of have been defined where possible (www.apis.ac.uk) for the conservation features of the European site.

If particularly damaging, point sources (or groups of point sources) can be identified, then emissions should be regulated to minimise the impacts. This is particularly important in areas where background levels are already exceeded or close to exceedance, where there is a requirement to reduce potential impacts not only by reducing existing pollution but also by ensuring that the potential for additional atmospheric inputs are minimised. It is also important for wider measures, such as local and national policy to take air pollution (impacts) at these sites into account.

## 5.3 Conservation Status and Management Requirements of Feature 3: *Molinia* meadows on calcareous, peaty or clayey silt-laden-soils (code: 6410)

#### **Conservation Status of Feature 3**

Monitoring carried out in July 2008 indicates that the Molinia meadows feature of Gower Commons SAC is in **Unfavourable condition**.

In 2008 samples of the habitat were recorded from Sluxton, Pengwern, Welshmoor and Fairwood Commons only. These sites were monitored under contract<sup>3</sup>. The output of the contract monitoring was interpreted into feature condition using the site specific performance indicators<sup>4</sup>.

#### **Management Requirements of Feature 3**

#### Grazing

Without traditional grazing practices, the grassland will become rank and eventually turn to scrub and woodland. However, overgrazing or grazing by the wrong type of stock (particularly sheep) will also lead to unwanted changes in species composition, as sheep tend to graze selectively.

All the SSSI have molinia meadows except Rhossili Down. All the sites are currently grazed. Some of which have a good grazing regime with cattle and ponies and few or no sheep, however some sites particularly Fairwood Common (unit 1, Fairwood, Pengwern and Welshmoor Commons) would benefit from a review of the grazing regime and possibly some changes to the current regime.

#### Scrub and rushes

Grazing alone may not be enough to prevent the encroachment of scrub, woodland or bracken. It might be necessary to have a scrub removal programme to complement the grazing regime. The growth of rushes may also increase in a wet grassland habitat like this. Rushes can establish after poaching occurs, often associated with over-grazing. Rushes might need to be controlled by topping. Scrub is a particular issue at Fairwood and Pengwern Commons and Sluxton Marsh.

#### Hydrology

The Molinia grassland depends on a number of springs and watercourses feeding the site. It is important that any existing or future threats to the site's hydrology are recognised and addressed. Examples of such threats might include water abstractions and quarrying.

#### Air Quality

An increase in nitrogen deposition will lead to a reduction in species diversity and changes in species dominance.

<sup>&</sup>lt;sup>3</sup> Marshy Grassland SSSI Condition Assessments – Swansea, Neath, Port Talbot District 2008 (CCW Regional Report No. CCW/WW/10/1f)

<sup>&</sup>lt;sup>4</sup> Assessment of the condition of the Molinia meadows feature of Gower Commons SAC: Monitoring Round 2 (2007 to 2012) – K. Wilkinson, CCW, 2011

Where acidification of Molinia meadows occurs, impacts on plant and lower plant health are problems.

Critical loads and levels of have been defined where possible (www.apis.ac.uk) for the conservation features of the European site.

If particularly damaging, point sources (or groups of point sources) can be identified, then emissions should be regulated to minimise the impacts. This is particularly important in areas where background levels are already exceeded or close to exceedance, where there is a requirement to reduce potential impacts not only by reducing existing pollution but also by ensuring that the potential for additional atmospheric inputs are minimised. It is also important for wider measures, such as local and national policy to take air pollution impacts at these sites into account.

## **5.4** Conservation Status and Management Requirements of Feature 4: Southern damselfly (code: 1044)

#### **Conservation Status of Feature 4**

A condition assessment was carried out in 2009 by CCW. The report concluded that at both Cefn Bryn and Rhossili Down, conditions were unfavourable.

The overall conclusion is that the feature is **Unfavourable**.

#### Cefn Bryn

Although the quantity of suitable breeding habitat was above the lower limit set out in the performance indicators; the area is unfavourable due to the insufficient population size of the Southern Damselfly. This may be because of the poor weather during monitoring, when the damselflies tend to take shelter during the flight period.

#### **Rhossili Down/Sluxton**

This area is unfavourable due to insufficient quantity of suitable breeding habitat and insufficient population size of the Southern Damselfly. Some habitat creation has been attempted as Rhossili Down, but it is not yet successful as the ditches are too deep to support the species and the flow of water is too fast. Further fine tuning of this created habitat is required.

#### **Management Requirements of Feature 4**

#### **Habitat Management**

The habitat of the southern damselfly is specific to the ditches and seepages at Rhossili Down and Cefn Bryn. The ditches are base-rich, slow flowing, shallow and have gravel beds. Key factors that must be maintained are water quality, water flow and openness of the ditches.

It is important that grazing of the commons continues to ensure that the ditches are reasonably open and not covered over with vegetation. Grazing also creates some poaching of the sides of the streams and ditches which can create shallow pools which the southern damselfly uses.

Where the vegetation has become too mature to be tackled by grazing, hand or careful machine clearance may be necessary.

It is important to have control over the land drainage as any new drainage could have implications on the water flows in the streams. It is also important to clean out the ditches periodically, however it is important to ensure that the ditches are not made too deep.

Water pollution may have detrimental effects on the southern damselfly. Nutrient enrichment from farms or chemical pollution from farms may both have adverse effects on the damselfly.

#### Air Quality

The runnel and flush habitat of Southern Damselfly sits within the heathland mosaic and any increase in nitrogen deposition will feed into the wetland habitat, leading to eutrophication and changing vegetation mosaics, making the habitat less suitable for this species.

Where the supporting habitat is a basic flush within a mostly acidic heathland, as at the Gower Commons; acidification of the flush can be a problem.

Critical loads and levels of have been defined where possible (<u>www.apis.ac.uk</u>) for the conservation features of the European site.

If particularly damaging, point sources (or groups of point sources) can be identified, then emissions should be regulated to minimise the impacts. This is particularly important in areas where background levels are already exceeded or close to exceedance, where there is a requirement to reduce potential impacts not only by reducing existing pollution but also by ensuring that the potential for additional atmospheric inputs are minimised. It is also important for wider measures, such as local and national policy to take air pollution impacts at these sites into account.

## **5.5 Conservation Status and Management Requirements of Feature 5: Marsh fritillary** butterfly (code: 1065)

#### **Conservation Status of Feature 5**

A condition report was carried out on the Gower Commons in 2008 through a contract issued by  $CCW^5$ . The conclusion of this report was that the marsh fritillary feature is **Unfavourable**.

The main reason for Unfavourable condition is a lack of Good Condition habitat and, so far in the current monitoring round, an insufficient number of marsh fritillary larval webs (although further work is required in the remaining two years of this monitoring round to produce a complete assessment of this attribute). The extent of available habitat is currently considered sufficient, although due to the uncertainties associated with the habitat mapping, this should be interpreted with caution. It is possible that this target may be increased in the near future, following discussions with invertebrate specialists and this would convert the result for this attribute to unfavourable.

#### **Management Requirements of Feature 5**

The marsh fritillary butterfly is found on marshy grassland and rough wet pasture where devil's bit scabious grows. The larvae depend on this plant to feed on before they over-winter.

Marshy grassland must be managed so that devil's bit scabious can survive there. Required management includes grazing with appropriate stock like cattle and/or ponies. As these animals tend to be less selective than sheep when they graze, leaving some devil's bit scabious.

<sup>&</sup>lt;sup>5</sup> D Ardeshir, G A Hopwood, K E Milner, J Towers and T A Lovering 2011. Marsh Fritillary Metapopulation Study and Habitat Condition Assessment (Incl. SSSIs) – Swansea, Neath, Port Talbot 2009. CCW Regional Report Series Report No: CCW/WW/10/1c

A lack of grazing can lead to an over-dominance of Molinia (purple moor grass). This might need to be managed by cutting or mowing, and then ideally followed by grazing. Stock does not tend to graze mature purple moor grass.

Scrub management may be required in addition to grazing. Although part of the benefits of grazing is that stock take young saplings of trees and scrubby plants, some natural succession to scrub is inevitable, particularly around the edges of sites. This should be managed by hand clearance if possible, to avoid taking vehicles on to the marshy grassland.

Land drainage should be avoided. The marshy grassland relies on its water holding abilities for its distinctive character, so any 'improvements' to how the grassland drains might cause long-term damage to the marshy grassland interests.

For guidance on air quality impacts see management requirements for the supporting habitat, Molinia meadows.

## 6. ACTION PLAN: SUMMARY

This section takes the management requirements outlined in Section 5 a stage further, assessing the specific management actions required on each management unit. This information is a summary of that held in CCW's Actions Database for sites, and the database will be used by CCW and partner organisations to plan future work to meet the Wales Environment Strategy targets for sites.

Unit	CCW	Unit Name	Summary of Conservation Management Issues	Action
Number	Database			needed?
	Number			
1	000960	F,P,W 1	Area is grazed, which is essential at this site. This is a relatively small area of the common on the edge of the SAC. This area has been included in the area managed by the Gower Commons Initiative project. The site has an overdominance of purple moor grass and rush and could be managed to improve the quality of the habitat.	Yes
2	000961	F, P, W 2	This is a small area of a bigger common. The habitat here runs along a drainage channel, which supports wetland species and habitats. The site is grazed, but it is important that we help to ensure that grazing is managed to best suit the requirements of the site.	Yes
3	000962	F,P,W 4	Pengwern Common has is grazed by cattle and ponies which is ideal for the site. There are areas of thick, old purple moor grass which require management. Some area have been burned over the years which has decreased the habitat value of the wet heath. Burning should be well managed, controlled and appropriate to the habitat. Bracken and scrub have encroached over the years but the site has been well managed by the commons and Gower Commons Association in recent years which has meant significant improvement in the control of bracken and scrub.	Yes
3	000962	F,P,W 4	Pengwern Common has is grazed by cattle and ponies which is ideal for the site. There are areas of think, old purple moor grass which require management. Some area have been burned over the years which has decreased the habitat value of the wet heath. Burning should be well managed, controlled and appropriate to the habitat. Bracken and scrub have encroached over the years but the site has been well managed by the commons and Gower Commons Association in recent years which has meant significant improvement in the control of bracken and scrub.	Yes
4	000963	Courthouse 1	The site hasn't been visited for a number of years. At the time of notification the site was managed by cattled grazing, which is good management for the habitats present.	Yes

5	000964	F,P,W 3	This is the one of the largest units in the SAC. The	Yes
		CCS	whole area is grazed by cattle, ponies and sheep. A	
			mixed stock is good for the site, however too many	
			sheep can cause the loss of the diversity of flowers.	
			Sheep numbers should be recorded and managed if	
			necessary CCW need to ensure the continued	
			grazing with cattle and ponies Scrub (willow birch	
			and gorse) encroachment has been a problem in this	
			area however a lot of clearance has been carried out	
			by the Commoners and the Gower Commons	
			Initiative This work should be continued. The site	
			also have a problem with bracken encroachment	
			This has been tackeled by the Commoners and the	
			Gower Commons Initiative, but it is on going work	
			which should be continued. The site have some	
			areas of old purple moor grass which stock will not	
			graze. It is important to encourage stock back on to	
			these areas by cutting or removal of this older	
			vegetation. The site has been burned over the years	
			which has led to a loss in the quality of some	
			habitate. Burning should be managed and	
			controlled through agreed burning plans or through	
			an agreement	
5	000064	EDW 3	This is the one of the largest units in the $SAC$ . The	Vac
5	000904	$\Gamma, \Gamma, W $ 5	This is the one of the fargest times in the SAC. The	168
		CCS	whole area is grazed by cattle, pollies and sheep. A	
			shoop can cause the loss the diversity of flowers	
			Sheep numbers should be recorded and managed if	
	l I		sheep numbers should be recorded and managed if	
	1		necessary it wheed to ensure the continued	
			grazing with cattle and ponies. Scrub (willow birch	
			grazing with cattle and ponies. Scrub (willow, birch and gorse) encroachment has been a problem in this	
			grazing with cattle and ponies. Scrub (willow, birch and gorse) encroachment has been a problem in this area, however a lot of clearance has been carried out	
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			grazing with cattle and ponies. Scrub (willow, birch and gorse) encroachment has been a problem in this area, however a lot of clearance has been carried out by the Commoners and the Gower Commons Initiative. This work should be continued. The site also have a problem with bracken encroachment	
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			grazing with cattle and ponies. Scrub (willow, birch and gorse) encroachment has been a problem in this area, however a lot of clearance has been carried out by the Commoners and the Gower Commons Initiative. This work should be continued. The site also have a problem with bracken encroachment. This has been tackeled by the Commoners and the Gower Commons Initiative, but it is on going work which should be continued. The site have some areas of old purple moor grass which stock will not graze. It is important to encourage stock back on to these areas by cutting or removal of this older	
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			necessary. CCW need to ensure the continued grazing with cattle and ponies. Scrub (willow, birch and gorse) encroachment has been a problem in this area, however a lot of clearance has been carried out by the Commoners and the Gower Commons Initiative. This work should be continued. The site also have a problem with bracken encroachment. This has been tackeled by the Commoners and the Gower Commons Initiative, but it is on going work which shoudl be continued. The site have some areas of old purple moor grass which stock will not graze. It is important to encourage stock back on to these areas by cutting or removal of this older vegetation. The site has been burned over the years, which has led to a loss in the quality of some	
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			necessary. CCW need to ensure the continued grazing with cattle and ponies. Scrub (willow, birch and gorse) encroachment has been a problem in this area, however a lot of clearance has been carried out by the Commoners and the Gower Commons Initiative. This work should be continued. The site also have a problem with bracken encroachment. This has been tackeled by the Commoners and the Gower Commons Initiative, but it is on going work which should be continued. The site have some areas of old purple moor grass which stock will not graze. It is important to encourage stock back on to these areas by cutting or removal of this older vegetation. The site has been burned over the years, which has led to a loss in the quality of some habitats. Burning should be managed and controlled through agreed burning plans or through	
			necessary. CCW need to ensure the continued grazing with cattle and ponies. Scrub (willow, birch and gorse) encroachment has been a problem in this area, however a lot of clearance has been carried out by the Commoners and the Gower Commons Initiative. This work should be continued. The site also have a problem with bracken encroachment. This has been tackeled by the Commoners and the Gower Commons Initiative, but it is on going work which should be continued. The site have some areas of old purple moor grass which stock will not graze. It is important to encourage stock back on to these areas by cutting or removal of this older vegetation. The site has been burned over the years, which has led to a loss in the quality of some habitats. Burning should be managed and controlled through agreed burning plans or through	

6	000965	F,P,W 5	Site is grazed by cattle which is ideal for the wet	Yes
		welshmoor	heath habitat. Annual arsen has taken place which	
			has left the site in a condition from which it needs to	
			recover. Burning plans are required under the new	
			Heather and Grass Burning code and the completion	
			will be agreed with CCW. Bracken, gorse, scrub	
			(birch, willow and rhody) encroachment is an issue	
			at this site, but has been managed by the National	
			Trust. This site is particularly important for the	
			marsh fritillary butterfly and the narrow bordered	
			hawkmoth.	
7	000966	Rhos 3	This section of the SAC, has a little of the SAC	Yes
			features (dry heath), but the key feature is	
			geomorphology which is an SSSI feature.	
			Management is cattle grazing, which is good	
			management for the heath.	
8	000967	Rhos 2	The key issues here are burning (the risk of and	Yes
			effects of previous burns), grazing (lack of cattle	
			grazing), overgrown flush/mire and bracken and	
			gorse spreading	
			Grazing with cattle has improved a lot over the last	
			few years. But the burning is difficult to control	
			and needs partnership working this include	
			preparing a burning plan. Bracken and gorse have	
			spread because of burning, but the NT do work on	
			controlling these species. Also cattle feeding on the	
			bracken has helped to control it. Black bog ant	
			occurs within this site, the maintenance of wet heath	
			and control of grazing is important to maintain the	
			requirement of this species.	
			The slopes forming the west side of Rhossili Down	
			include sedimentary deposits which form part of the	
			GCR interests.	
9	000968	Rhos 1	The key issues here are burning (the risk of and	Yes
			effects of previous burns), grazing (lack of cattle	
			grazing), overgrown flush/mire, bracken and gorse	
			sreading and ditch clearance for the Southern	
			Damselfly.	
			Grazing with cattle has improved a lot over the last	
			few years. The NT manage the ditches. But the	
			burning is difficult to control and needs partnership	
			working. Bracken and gorse have spread because of	
			burning, but the NT do work on controlling these	
			species. Also cattle feeding on the bracken has	
10	0000.00		helped to control it.	**
10	000969	Rhos 4	There is little SAC features in this unit, although it	Yes
			is within the SAC. There are small areas of dry	
			heath though. Owner should maintain present	
11	000071	Olare ( 1	The loss is the second	V.
11	0009/1	Siuxton I	The key issues here are managing the marshy	res
			grassiand mosaic and managing the ditches for the	
			southern Dansenity. Currently the site is under	
			nanagement agreement to graze with cattle and	
			We have to continue this	
1		1	we nope to continue this.	

12	000972	Cefn 2	This is a small part of the larger site. It has a	Yes
			inumber of seepages which support fate	
			include learning ditches clean a The heathland	
			include keeping duches clear, a The heathland	
			requires management through grazing and cutting.	
13	000973	Cefn 3	This is a small section of the wider common. Key	Yes
			issues include gorse and bracken control and lack of	
			sufficient grazing.	
14	000974	Cefn 4	This is a small section of the wider common. Key	Yes
			issues are too much gorse and bracken and	
			insufficient grazing.	
15	000975	Cefn 5	This is a relatively small ares of ther common, but it	Yes
			supports SAC habitat. The key issues here are	
			bracken and gorse taking over and lack of	
			appropriate grazing. Burning is also a threat at this	
			site	
16	000976	Cefn 1	This unit is the largest expanse of the common. Key	Yes
			issues include gorse and bracken control grazing	
			supplementary feeding illegal use of vehicles ditch	
			management invasive species - Rhododendron	
			The site was subject to a Tir Cymen agreement and	
			has recieved some help from the Cower Commons	
			Initiative	
17	000077	Cafe	This writ does not contain one SAC features	Vaa
17	000977	Cem 6	This unit does not contain any SAC features.	Yes
17	000977	Cetn 6	This unit does not contain any SAC features.	Yes
			However there is an SSSI feature of open water at	
			Broadpool. This pond requires management to	
			prevent to spread of non-native pondweed (fringed	
			water lily).	

### 7. GLOSSARY

This glossary defines the some of the terms used in this **Core Management Plan**. Some of the definitions are based on definitions contained in other documents, including legislation and other publications of CCW and the UK nature conservation agencies. None of these definitions is legally definitive.

- Action A recognisable and individually described act, undertaking or **project** of any kind, specified in section 6 of a **Core Management Plan** or **Management Plan**, as being required for the **conservation management** of a site.
- Attribute A quantifiable and monitorable characteristic of a **feature** that, in combination with other such attributes, describes its **condition**.
- **Common Standards Monitoring** A set of principles developed jointly by the UK conservation agencies to help ensure a consistent approach to **monitoring** and reporting on the **features** of sites designated for nature conservation, supported by guidance on identification of **attributes** and monitoring methodologies.
- **Condition** A description of the state of a feature in terms of qualities or **attributes** that are relevant in a nature conservation context. For example the condition of a habitat usually includes its extent and species composition and might also include aspects of its ecological functioning, spatial distribution and so on. The condition of a species population usually includes its total size and might also include its age structure, productivity, relationship to other populations and spatial distribution. Aspects of the habitat(s) on which a species population depends may also be considered as attributes of its condition.
- **Condition assessment** The process of characterising the **condition** of a **feature** with particular reference to whether the aspirations for its condition, as expressed in its **conservation objective**, are being met.
- **Condition categories** The **condition** of **feature** can be categorised, following **condition assessment** as one of the following<sup>6</sup>:

Favourable: maintained; Favourable: recovered; Favourable: un-classified Unfavourable: recovering; Unfavourable: no change; Unfavourable: declining; Unfavourable: un-classified Partially destroyed; Destroyed.

<sup>&</sup>lt;sup>6</sup> See JNCC guidance on Common Standards Monitoring <u>http://www.jncc.gov.uk/page-2272</u>

- **Conservation management** Acts or undertaking of all kinds, including but not necessarily limited to **actions**, taken with the aim of achieving the **conservation objectives** of a site. Conservation management includes the taking of statutory and non-statutory measures, it can include the acts of any party and it may take place outside site boundaries as well as within sites. Conservation management may also be embedded within other frameworks for land/sea management carried out for purposes other than achieving the conservation objectives.
- **Conservation objective** The expression of the desired **conservation status** of a **feature**, expressed as a **vision for the feature** and a series of **performance indicators**. The conservation objective for a feature is thus a composite statement, and each feature has one conservation objective.
- **Conservation status** A description of the state of a **feature** that comprises both its **condition** and the state of the **factors** affecting or likely to affect it. Conservation status is thus a characterisation of both the current state of a feature and its future prospects.
- **Conservation status assessment** The process of characterising the **conservation status** of a **feature** with particular reference to whether the aspirations for it, as expressed in its **conservation objective**, are being met. The results of conservation status assessment can be summarised either as 'favourable' (i.e. conservation objectives are met) or unfavourable (i.e. conservation objectives are not met). However the value of conservation status assessment in terms of supporting decisions about **conservation management**, lies mainly in the details of the assessment of feature **condition**, **factors** and trend information derived from comparisons between current and previous conservation status assessments and condition assessments.
- **Core Management Plan** A CCW document containing the conservation objectives for a site and a summary of other information contained in a full site **Management Plan**.
- **Factor** Anything that has influenced, is influencing or may influence the **condition** of a **feature**. Factors can be natural processes, human activities or effects arising from natural process or human activities, They can be positive or negative in terms of their influence on features, and they can arise within a site or from outside the site. Physical, socio-economic or legal constraints on **conservation management** can also be considered as factors.
- Favourable conditionSee condition and condition assessment

## **Favourable conservation status** See conservation status and conservation status assessment.<sup>7</sup>

**Feature** The species population, habitat type or other entity for which a site is designated. The ecological or geological interest which justifies the designation of a site and which is the focus of conservation management.

#### **Integrity** See site integrity

- **Key Feature** The habitat or species population within a **management unit** that is the primary focus of **conservation management** and **monitoring** in that unit.
- Management Plan The full expression of a designated site's legal status, vision, features, conservation objectives, performance indicators and management requirements. A complete management plan may not reside in a single document, but may be contained in a number of documents (including in particular the Core Management Plan) and sets of electronically stored information.
- **Management Unit** An area within a site, defined according to one or more of a range of criteria, such as topography, location of **features**, tenure, patterns of land/sea use. The key characteristic of management units is to reflect the spatial scale at which **conservation management** and **monitoring** can be most effectively organised. They are used as the primary basis for differentiating priorities for conservation management and monitoring in different parts of a site, and for facilitating communication with those responsible for management of different parts of a site.
- **Monitoring** An intermittent (regular or irregular) series of observations in time, carried out to show the extent of compliance with a formulated standard or degree of deviation from an expected norm. In **Common Standards Monitoring**, the formulated standard is the quantified expression of favourable **condition** based on **attributes**.
- **Operational limits** The levels or values within which a **factor** is considered to be acceptable in terms of its influence on a **feature**. A factor may have both upper and lower operational limits, or only an upper limit or lower limit. For some factors an upper limit may be zero.
- **Performance indicators** The **attributes** and their associated **specified limits**, together with **factors** and their associated **operational limits**, which provide the standard against which information from **monitoring** and other sources is used to determine the degree to which the **conservation objectives** for a **feature** are being met. Performance indicators are part of, not the same as, conservation objectives. See also **vision for the feature**.

<sup>&</sup>lt;sup>7</sup> A full definition of favourable conservation status is given in Section 4.

- Plan or projectProject: Any form of construction work, installation, development or<br/>other intervention in the environment, the carrying out or continuance<br/>of which is subject to a decision by any public body or statutory<br/>undertaker.Plan: a document prepared or adopted by a public body or statutory<br/>undertaker, intended to influence decisions on the carrying out of<br/>projects.Decisions on plans and projects which affect Natura 2000 and Ramsar<br/>sites are subject to specific legal and policy procedures.
- **Site integrity** The coherence of a site's ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it is designated.

Site Management Statement (SMS) The document containing CCW's views about the management of a site issued as part of the legal notification of an SSSI under section 28(4) of the Wildlife and Countryside Act 1981, as substituted.

- **Special Feature** See feature.
- **Specified limit** The levels or values for an **attribute** which define the degree to which the attribute can fluctuate without creating cause for concern about the **condition** of the **feature**. The range within the limits corresponds to favourable, the range outside the limits corresponds to unfavourable. Attributes may have lower specified limits, upper specified limits, or both.
- Unit See management unit.
- Vision for the feature The expression, within a conservation objective, of the aspirations for the feature concerned. See also performance indicators.
- **Vision Statement** The statement conveying an impression of the whole site in the state that is intended to be the product of its **conservation management**. A 'pen portrait' outlining the **conditions** that should prevail when all the **conservation objectives** are met. A description of the site as it would be when all the **features** are in **favourable condition**.