CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES

CORE MANAGEMENT PLAN
INCLUDING CONSERVATION OBJECTIVES

FOR

CORS CARON SAC
(SPECIAL AREA OF CONSERVATION), RAMSAR, SSSI

Version: **5**

Date: **16 April 2008**

Approved by: Tracey Lovering

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

Cyngor Cefn Gwlad Cymru
Countryside Council for Wales

NATURA 2000

Ramsar

Llywodraeth Cynulliad Cymru
Welsh Assembly Government
CORFF NODDEDIG | SPONSORED BODY

CONTENTS

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. VISION FOR THE SITE

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 **active raised bog** at Cors Caron will show the typical features of a fully functional raised bog. The vegetation will be dominated by species of bog moss in lawns and hummocks. The peat domes should be waterlogged with the watertable at the surface or within a few centimetres of the surface for most of the year.
- Plants such as cross-leaved heath, heather and hare's tail cotton grass form a low-growing patchy canopy. Other species such as bog rosemary, deer grass and round leaved sundew will be less frequent but still fairly abundant. Purple moor grass, Cladonia lichens and hypnaceous mosses will be scarce.
- There will be wet hollows on the mire surface which will contain bog mosses such as golden bogmoss, feathery bogmoss, bog asphodel, many headed cotton grass and white beak sedge.
- The central area of the raised mires will be free from trees and large saplings and invasive species such as Rhododendron ponticum will not be present.
- Plant communities dominated by bog mosses will extend down the sloping sides of the raised bog (the rand) where there will be a series of transitions to other plant communities. Typically this would be into a wet heath with purple moor grass, cross-leaved heath, tormentil and deer grass.
- Surrounding the raised bogs is a network of streams that eventually reach the Afon Teifi. This is known as the lagg fen and is a mixture of tall fen vegetation such as meadowsweet and Hemlock water dropwort and willow woodland. The groundlayer will have abundant mosses and liverworts.
- The **rhyncosporion pool** vegetation forms an intimate mix with the plant communities of the active raised mire. The hollows should be wet all year round except during very dry periods. Bog mosses that favour these very wet conditions should dominate the vegetation. Plants such as many-headed cotton grass, bog asphodel and white beaked sedge should form a scattered canopy over the lawns of bog moss. These hollows should be frequently encountered on the tops of the raised mires.
- The flood-plain of the Afon Teifi is dominated by **marshy grassland** and **swamp** vegetation. The swamp vegetation tends to have very few species with the main one being the tall reed, Reed Canary Grass. However this habitat is very important for breeding birds and is uncommon in Ceredigion. This habitat is home to the diminutive liverwort **Bog earwort**.
- The **marshy grassland** will be predominantly purple moor grass and soft rush. There will be some tussocky areas but generally there will be an open structure with a variety of other flowering plants such as marsh cinquefoil, lady's smock, yellow rattle and occasionally common spotted and heath spotted orchids.
- The great variety of habitats at Cors Caron accounts for the wide range of insects and other invertebrates recorded. The **Rosy Marsh Moth, the Large Heath Butterfly** and the spider **Singa hamata** are only found on the type of wetlands found at Cors Caron. These animals will occupy all areas of suitable habitat and this will be in a suitable condition for them to complete their life-cycle.
- The Afon Teifi runs through the middle of Cors Caron and is designated a Site of Special Interest in its own right. **Floating water plantain** grows in the river channel and it is a key habitat for **otters** and **water vole.**

2. SITE DESCRIPTION

2.1 Area and Designations Covered by this Plan

Grid reference: SN691638

Unitary authority: Ceredigion

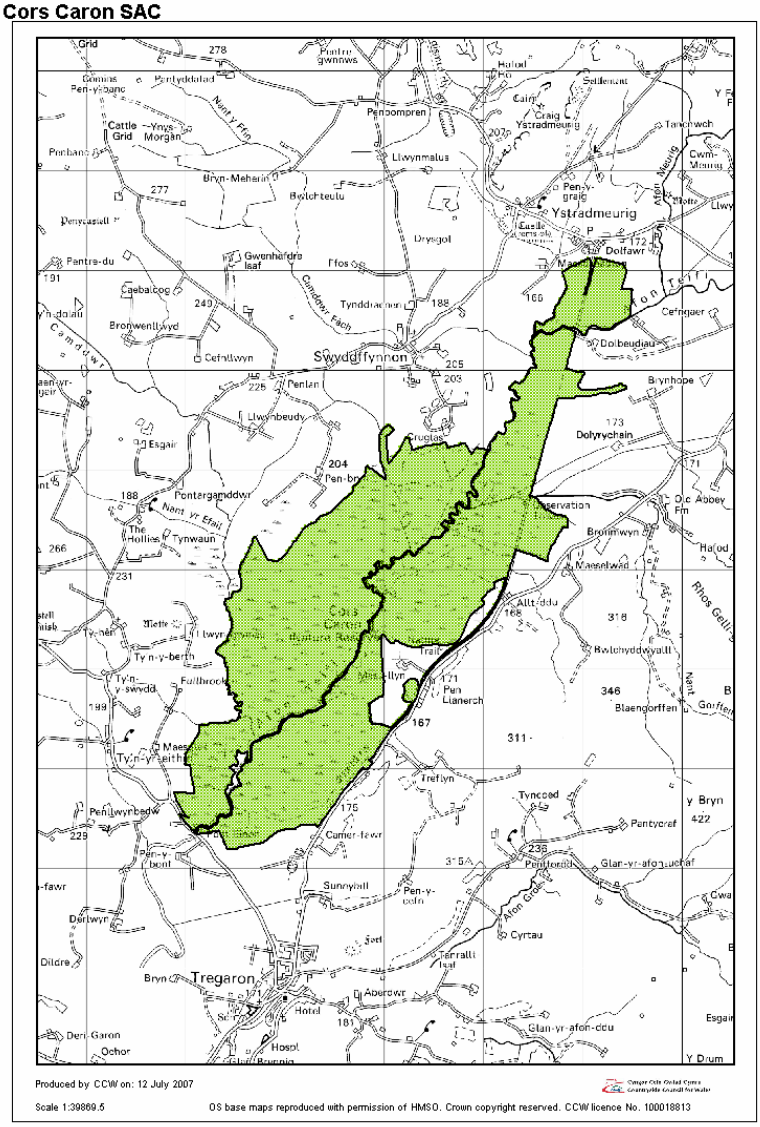
Area (hectares): SAC 862 ha, Ramsar 865 ha

Designations covered: Cors Caron SAC, Ramsar, SSSI. Afon Teifi SAC runs through the centre of the Cors Caron SAC, but is not included in this plan. Refer to separate Afon Teifi SAC plan where noted.

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

A summary map showing the coverage of this document is shown below (map 1)

Cors Caron SAC



2.2 Outline Description

A classic and extensive raised mire system, comprising thee distinct mires. The system is bisected by the Afon Teifi which separates the largest and least disturbed mire from the other areas. The site supports an unusually diverse flora, and is important for invertebrates and its avifauna.

Cors Caron is a very extensive raised mire system developed over a late-glacial lake which once occupied the broad valley of the river Teifi. The raised mires lie at an altitude of about 160m (524ft), extend for 4km (2 miles) along the valley and reach 2km (1- mile) in width. Three distinct mires are separated either by the Teifi or by lagg streams which join the river. The largest single expanse, the West bog lies to the west of the river; while the North-East and South-East bogs, to the east are separated by the morainic knoll on which Maes-llyn farm is situated. This mire was the first true raised mire to be described in detail in Britain (Godwin and Conway, 1939) and is regarded as a classical site where the development sequence from aquatic conditions through flood plain mire to an ombrogenous mire surface is well demonstrated in the stratigraphy.

The vegetation of the mire expanse shows an unusually wide range of variation, including *Sphagnum*-rich vegetation (exhibiting a small-scale hummock-hollow topography), heather *Calluna vulgaris* dominated areas and areas in which both purple moor-grass *Molinia caerulea* and deer-grass *Trichophorum cespitosum* are major components. This variation is largely the effect of past burning and probably also drainage. Fortunately the regeneration of an active mire surface has been so successful that little clear evidence of fire now remains; only the mosaic of vegetation types and the somewhat lowered water table, with consequent loss of species richness, still provide evidence of past damage. The cover and composition of the bog-moss (Sphagnum flora) is diminished over significant areas of all three bogs, suggesting past large-scale disturbance of all the three mires. The West Bog in particular would be expected to bear an active mire plan flora, with more extensive areas of comparatively open Sphagnum rich vegetation. However, such features are comparatively confined in extent and appear to have succumbed to a locally high cover of graminoids and/or ericoids. Active restorative management should help reverse this trend, although atmospheric nitrogen deposition remains a key concern.

River terraces, which are regularly flooded, show a zonation of plant communities parallel to the river. Reed canary-grass *Phalaris arundinacea* and tufted hair-grass *Deschampsia cespitosa* occur along the river edge and a broad zone of soft rush *Juncus effusus* with incipient carr formation occurs between this and a Molinia-rich lagg community. A wide rand is present which is mainly dominated by vascular plants with a discontinuous *Sphagnum* carpet.

The bog, including the river and open water, is a valuable breeding and overwintering area for several species of wader and wildfowl - including redshank, curlew, mallard, teal and wigeon. It is also noted for its flock of whooper swans, the most southerly one of any size wintering regularly in Britain. About 70 species of bird breed on the reserve or in the immediate surroundings. There has been a large number species of invertebrate recorded and the reserve is one of the most southerly localities known in Britain for the large heath butterfly. It is also one of only two sites in the Britain where the rosy marsh moth has been recorded since its extinction from eastern England.

The old railway track which forms part of the south-east boundary and then crosses part of the northern bog is raised and does not flood. It provides good access and, due to the relatively base-rich nature of the material, supports a flora and insect fauna found nowhere else on the reserve

Most of the reserve is owned by the Countryside Council for Wales, the remainder is subject to a Nature Reserve Agreement with the owners. The Reserve has previously been known as Cors Tregaron, Tregaron Bog and Cors Goch Glan Teifi.

2.3 Outline of Past and Current Management

Traditional land practices on the bog have probably played an important part in the lives of local inhabitants and peripheral farmers for many generations.

Traditionally, the land, and the vegetation it supports, has been used for grazing, for cattle during the summer months and as more sheltered ground during the winter, for sheep, which spend the summer on the hill, and for ponies, which graze throughout the year.

In the northern part of the reserve, low lying land in the vicinity of the ruined farmhouse at Dol Glan Teifi, was formerly pasture from which hay crops were harvested. The loss of cheap and abundant labour and the increased cost of hiring machinery has resulted in inefficient drainage, the inevitable rise in the water table, leading to colonisation and dominance by rushes.

Grazing continues, by sheep and by ponies, with greater concentrations during the summer but with some sheep and brood mares with foals all the year round.

Rush cutting is another traditional land use, much more widely practised in the past than it is now. The rushes were cut for bedding and as poor quality fodder. The practice continues, although at a reduced level, a few small areas being mown if dry weather coincides with convenience, for bedding material.

On the two eastern bogs, accessible from high ground to the east, peat cutting has occurred on all sides so that only the centres of the domes remain uncut. The less accessible west bog has suffered less from peat cutting and drainage operations, thus its crown, eastern and some of its north-western margins remain intact. One major extraction route through Cruglas facilitated the removal of peat from the northern part of the west bog, and supplied farmsteads in that area. There is some evidence to suggest that there may have been additional raised bogs (one in the extreme south and two in the northern area) which were destroyed completely by the peat-cutting activities of the monks at Strata Florida Abbey and the lead miners in and around Pontrhydfendigaid.

Peat cutting ceased by 1960 and most of the old diggings are now recolonised by plants, the cuttings and drains still affect the hydrology of the intact raised bogs by lowering the water table.

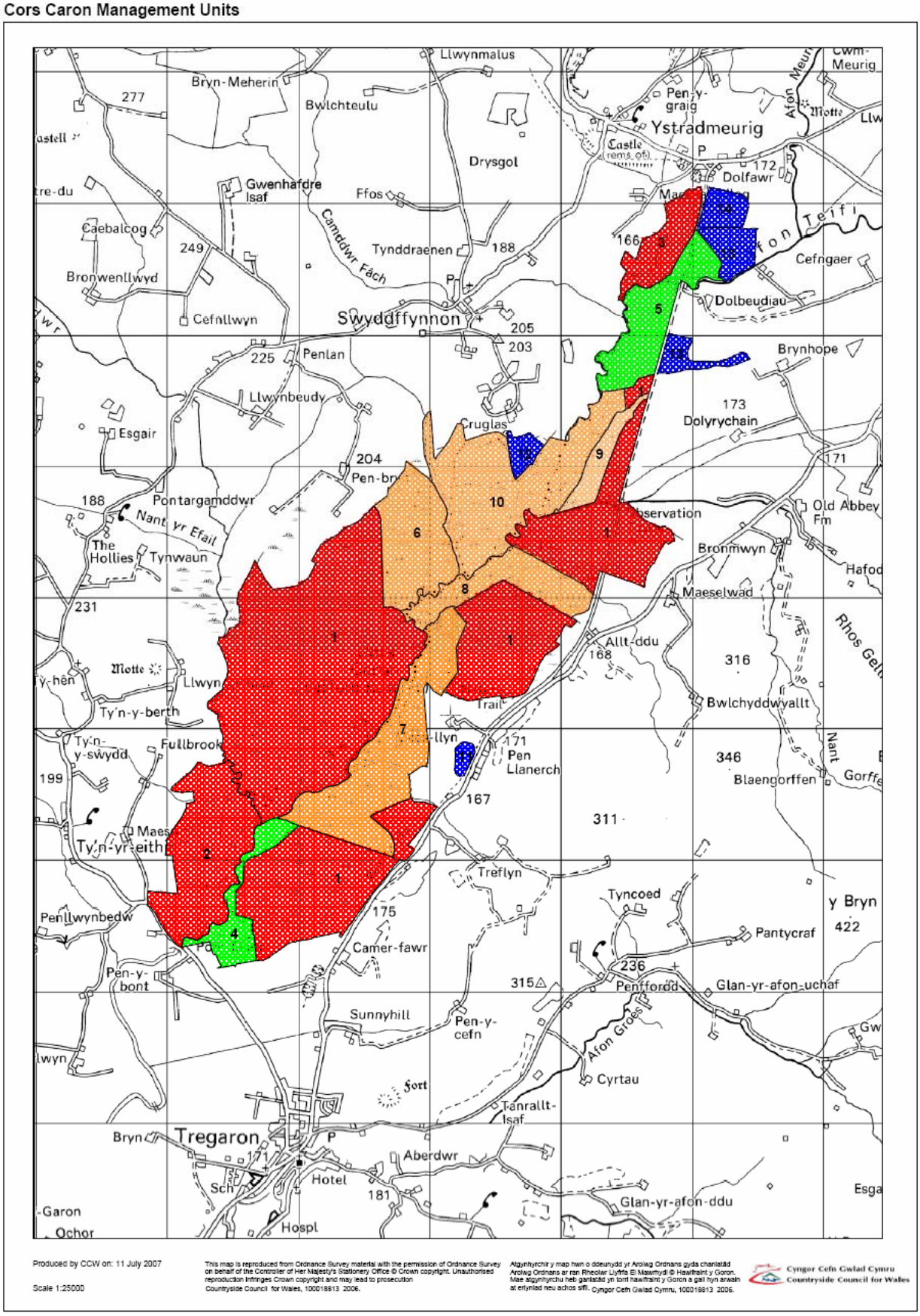
The majority of the area of Cors Caron SAC is now managed for nature conservation as a National Nature Reserve through direct management by CCW, agricultural tenancy or Nature Reserve Agreement.

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 tenure including relevant agreements and management practices.

Map 2 below, shows the management units referred to in this plan.

Cors Caron Management Units



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

Table 1

Unit number	SAC	SSSI	CCW owned	NNR	Ramsar
Cors Caron SSSI					
1	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓
4	✓	✓	✓	✓	✓
5	✓	✓	✓	✓	✓
6	✓	✓	✓	✓	✓
7	✓	✓	✓	✓	✓
8	✓	✓	✓	✓	✓
9	✓	✓	✓	✓	✓
10	✓	✓	✓	✓	✓
11	✓	✓			✓
12	✓	✓			✓
13	✓	✓			✓
14	✓	✓			✓

3. THE SPECIAL FEATURES

3.1 Confirmation of Special Features

Designated feature	***Relationships, nomenclature etc***	***Conservation Objective in part 4***
SAC features		
Annex I habitats that are a primary reason for selection of this site Active raised bog (EU habitat code 7110)	See also Ramsar criterion 3	**1**
Degraded raised bog still capable of natural regeneration (EU habitat 7120)	See also Ramsar criterion 3	**2**
Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site Transition mires and quaking bogs (EU habitat 7140)	Transition mire only See also Ramsar criterion 3	**3**

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site (cont.d) Depressions on peat substrates of the *Rhyncosporion* (EU habitat 7140)	This is a component of the active raised bog feature and will be dealt with under that feature	**1**
Annex II species that are a primary reason for selection of this site. Otter (EU species code 1355)	As this species mainly relates to the Teifi river which is a separate SAC, that plan will cover this feature and should be referred to for any further information. See also Ramsar criterion 2	**6**
Ramsar features		
Ramsar criterion 2 Populations of *Coenonympha tullia* (large heath butterfly), *Coenophila subrosea,* otter, water vole	*Coenonympha tullia* and *Coenophila subrosea* dealt with under the invertebrate assemblage feature Otter treated as separate feature as SAC Water vole treated as separate feature as SSSI	**6** **16**
Ramsar criterion 3 Supports a rich vegetation assemblage and possesses a surface pattern characteristic of this mire habitat type. *Sphagnum pulchrum*, *S. subsecundum*, *Atrichum tenellum* - nationally scarce *Riccia huebeneriana*, *Scapania paludicola* - nationally rare	*Scapania paludicola* treated as separate SSSI feature *Sphagnum pulchrum, S. subsecundum* and *Atrichum tenellum* dealt with under bryophyte assemblage feature	**13** **9**
SSSI features		
Marshy grassland		**7**
Swamp		**8**
Bryophyte assemblage	See also Ramsar criterion 3 features, *Sphagnum pulchrum, S. subsecundum* and *Atrichum tenellum* dealt with under this feature	**9**
Invertebrate assemblage	See also Ramsar criterion 2 feature, *Coenonympha tullia* and *Coenophila subrosea* dealt with under this feature	**10**
Breeding bird assemblage		**11**
Singa hamata		**15**
Water vole		**16**

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 focus of management and monitoring effort, perhaps because of the dependence of a key species (see KS below). There will rarely be more than one Key Habitat in a unit.

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 focus of management and 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 focus of management or 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 are 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).

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 with no special feature present but which are of importance for management of features elsewhere on a site e.g. livestock over-wintering area included within designation boundaries.

x – Features not present in the management unit.

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

Cors Caron	**Management Units**													
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR / CCW owned	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
NRA				✓	✓									
Tenancy						✓	✓	✓	✓	✓				
Private											✓	✓	✓	✓
SAC Features														
1 Active Bog	**KH**													
2 Degraded Bog	**KH**					**KH**	**KH**							
3 Depressions of the Rhyncosporion	Sym													
4 Transition Mire	Sym				Sym								Sym	
5 Otter	Sym													
SSSI Features														
6 Water vole	Sym	Sym	Sym	Sym		Sym	Sym			Sym				
7 Marshy grassland	Sym	**KH**	**KH**	**KH**	**KH**	**KH**	**KH**	**KH**		Sym		**KH**	**KH**	
8 Swamp	Sym													
9 Bryophyte assemblage	Sym													
10 Invertebrate assemblage	Sym	Sym												
11 Breeding bird assemblage	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym
12 Rosy Marsh Moth	**KS**													
13 Large Heath Butterfly	**KS**													
14 Singa hamata	Sym													
15 Raised mire stratigraphy	Sym													

4. CONSERVATION OBJECTIVES

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[1].

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.

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.

[1] Available through www.jncc.gov.uk and follow links to Protected Sites and Common Standards Monitoring.

4.1 Conservation Objective for Feature 1: Active Raised Bog (EU Habitat Code 7110) including Feature 3 Depressions on Peat Substrates of the *Rhyncosporion* EU Habitat Code 7140)

Vision for feature 1

The active raised bog at Cors Caron will be at Favourable Conservation Status where all the following are met –

- The active raised bog at Cors Caron will show the typical features of a fully functional raised bog including central microform patterning, steep peripheral rand and marginal lagg fen. The peat domes should be waterlogged with the watertable at the surface or within a few centimetres of the surface for most of the year.

- The surface of the mire expanse will show the typical microform hollow/hummock patterning. The vegetation will be dominated by species of bog moss in lawns and hummocks.

- Vascular plants such as cross-leaved heath, heather and hare's tail cotton grass form a low-growing patchy canopy. Other species such as bog rosemary, deer grass and round leaved sundew will be less frequent but still fairly abundant.

- Purple moor grass will be scarce; Cladonia lichens and hypnaceous mosses will be locally frequent on naturally drier mature hummocks.

- There will be wet hollows on the mire surface which will contain bog mosses such as Sphagnum pulchrum, S. cuspidatum, S. auriculatum, bog asphodel, many headed cotton grass and white beak sedge.

- The central area of the raised mires will be free from trees and large saplings. Invasive species such as Rhododendron ponticum will not be present.

- Plant communities dominated by bog mosses will extend down the sloping sides of the raised mire where there will be a series of transitions to other plant communities. Typically this would be into a wet heath with purple moor grass, cross leaved heath, tormentil and deer grass. This in turn would grade into purple moor grass 'grassland' but still with abundant mire species.

- At the bottom of the lagg fen a poor-fen and wet woodland communities will be present. The poor-fen will de dominated by sedges such as star sedge, purple moor grass and rush species. The groundlayer will have abundant bryophytes.

- The rhyncosporion pool vegetation forms an intimate mix with the plant communities of the active raised mire. The hollows should be wet all year round except during very dry periods. The vegetation should be dominated by bog mosses that favour these very wet conditions. Plants such as many-headed cotton grass, bog asphodel and white beaked sedge should form a scattered canopy over the lawns of bog moss. These hollows should be frequently encountered on the tops of the raised mires.

- All factors affecting the feature will be under control

Performance indicators for Feature 1

The performance indicators are part of 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 feature condition		
Attribute	***Attribute rationale and other comments***	***Specified limits***
A1. Extent of active raised bog	There are three areas of active raised bog, the West Bog, North East Bog and South East Bog. These are all parts of management unit 1 There is no opportunity to increase the extent or alter the distribution of active raised bog except in areas of degraded raised which in time will be returned to active raised bog.	West Bog *Lower limit :* 140 hectares *Upper limit :* not set North East Bog *Lower limit :* 30 hectares *Upper limit :* not set South East Bog *Lower limit :* 16 hectares *Upper limit :* not set
A2. Proportion of hummock / hollow vegetation	The proportion of primary surface intact active raised bog communities referable to a hummock - wet hollow complex. The characteristic microtopography of raised bogs of Western Britain in favourable conservation status consists of a complex of vegetated hummocks of peat separated by wet hollows. The hummocks support mainly sphagna, ericaceous spp. and Eriophorum vaginatum and the wet hollows support floating rafts of aquatic sphagna spp. e.g. Sphagnum cuspidatum. The North-East bog represents the best example of intact active raised mire within the SAC; performance indicators for this attribute are therefore based on the North East bog.	The proportion of the primary surface intact active raised bog communities referable to a hummock - wet hollow complex is: *Lower limit* : 80% of the vegetation *Upper limit* : none set

Performance indicators for feature condition (cont.d)		
Attribute	***Attribute rationale and other comments***	***Specified limits***
A3. Ratio of hollows within the hummock / hollow microform	The ratio of wet Sphagnum hollows to hummock and ridge microforms. The main threat to this feature is drying out and/or a decline in the water table. Management objectives are geared toward maintaining/increasing the 'wetness' of the site, with the emphasis on subsequent monitoring being on the species/surface patterns indicative of these wetter conditions. If we have sufficient 'wet forms' i.e. hollows then we are confident that we will have adequate hummocks and ridges. The ratio of hollows is within the hollow/hummock complex is therefore significant. Species associated with wet hollows are *Sphagnum cuspidatum, Rhynchospora alba, Narthecium ossifragum* and *Sphagnum tenellum.* These are all species which are colonisers or associates of wet pool habitats. The following however are indicators of drier conditions: *Calluna vulgaris, Cladonia spp., Molinia caerulea* and *Empetrum nigrum.* These species should be absent from hollow vegetation.	Ratio of hummock - wet hollow – *Lower limit* : a mosaic of 20% wet hollow vegetation within a 10 m radius of any point *Upper limit* : a mosaic of 30% wet hollow vegetation within a 10 m radius of any point And where wet hollow vegetation in favourable status is recognised by/defined as – within 0.5 m of a given sampling point - *Sphagnum cuspidatum* with at least 1 plant of *Rhynchospora alba, Narthecium ossifragum* and/or *Sphagnum tenellum* with the following species absent: *Calluna vulgaris, Cladonia spp., Molinia caerulea and Empetrum nigrum*
A4. Presence of *Rhyncosporion* pool vegetation	The *Rhyncosporion* pool vegetation forms an intimate mix with the plant communities of the active raised mire. The hollows should be wet all year round except during very dry periods. The vegetation should be dominated by bog mosses that favour these very wet conditions. Plants such as many-headed cotton grass, bog asphodel and white beaked sedge should form a scattered canopy over the lawns of bog moss. These hollows should be frequently encountered on the tops of the raised mires.	*Rhyncosporion* pool vegetation will cover – *Lower limit* : 15% of the primary raised bog surface *Upper limit* : 70% of the primary raised bog surface Where *Rhyncosporion* vegetation is defined as wet vegetation where, in any 1metre radius: • Sphagnum cuspidatum and/or S. pulchrum form >20% cover • at least two of *Rhynchospora alba, Andromeda polifolia and Narthecium ossifragum* are present • *Molinia caerulea* is absent

Performance indicators for factors affecting the feature		
Factor	***Factor rationale and other comments***	***Operational Limits***
F1. Water levels	The quantity of water within a raised mire system is critical and originates entirely from rainfall - the system is ombrotrophic. All of the typical plant species require high water table conditions to thrive and the water table in an intact mire system with favourable status would normally be at or close to (within 10cms.) the mire surface throughout the year. The Cors Caron system is however not intact, the periphery of each dome having been cut away by historical peat cutting activity. This restricts the potential maximum water table height in the dome and operational limits must be set accordingly. The limits reflect conditions that may be achieved through management given current rainfall levels. External agricultural drainage operations may have an impact on the potential raise water levels on the domes. This impact cannot currently be quantified and research is required.	*Lower limit* : Within 20cm of the surface for 6 months per year and within 30cm at all times. *Upper limit* : None set.
F2. Water quality	Water chemistry is also critical in relation to the key species e.g. sphagna associated with raised mires. In an ombrotrophic system fed entirely by rainfall this factor is normally irrelevant. However, conservation management of mire sites elsewhere has included the use of abstracted water to maintain high water levels and water quality must therefore be considered. External agricultural operations e.g. liming combined with drift may affect water quality on the mires. Natural systems with favourable status are known to have oligotrophic conditions with pH levels within the range 2.7 - 4.5. (pH).	*Upper limit*: pH of surface water is 4.5 *Lower limit*: pH of 2.7 Polluted / minerotrophic / fertiliser loaded water will not be used to raise the water table
F3. Scrub	In the UK, raised mires with favourable status have very low cover of any native scrub species e.g. willow, birch, rowan as the typical species are intolerant of high water levels. At Cors Caron lowered water tables through peat cutting have led to the establishment of significant scrub cover and conservation management must seek to reduce this to minimise the impacts of evapotranspiration and displacement of typical mire species. The following upper limit reflects cover of scrub where it will have insignificant impact on typical mire species and hydrology. *Rhododendron ponticum* This non-native species is present on-site and in the Tregaron area. It is highly invasive and if left unchecked would cover large areas of the mire surface.	*Lower limit* : none set *Upper limit* : No scrub present on the active mire plain. No greater than 5% cover of scrub in any given 1 ha area of the site and a maximum scrub block size 0.04 ha or >20m across and a maximum height of scrub of 3 metres [where scrub is defined as any area of closed canopy scrub 5m x 5m across (0.0025 ha)] *Lower limit*: no *Rhododendron ponticum* on the mire expanse. *Upper limit:* 2 *Rhododendron* plants (non-seed bearing) on each mire expanse and development to seed bearing maturity prevented.

Performance indicators for factors affecting the feature (cont.d)		
Factor	***Factor rationale and other comments***	***Operational Limits***
F4. Fire	Typical mire species, plant and animal, are very intolerant of burning. Peat is very combustible and fire has the potential to destroy a significant proportion of the mire substrate.	No fires shall be tolerated across the active mire surface.
F5. Grazing / agricultural tenancies	Grazing by agricultural stock is undesirable, leading to modification of the mire communities through selective grazing, poaching, eutrophication etc. Some areas of the intact raised mires are subject to agricultural tenancies where agreements allow grazing by stock. Since inception of the tenancies, tenants have not exercised the right to graze on the mire domes. Because the tenancies do provide for a scenario where legal stock grazing could occur, CCW may need to consider options for preventing this activity through management agreements etc. Livestock grazing of other areas of the site under tenancies, e.g. the secondary non-intact mire surfaces and the river flood plain habitats does significantly influence CCW's ability to manage the primary intact domes - that is, operations which raise the water table such as pressure-bunding and ditch blocking may endanger livestock.	There will be no livestock grazing on the primary intact domes.
F6. Atmospheric nutrient deposition.	Ombrotrophic mires receive all their water and inorganic nutrients from precipitation and dry deposition. A search of the Air Pollution Information System database (www.apis.ac.uk) reveals that Cors Caron is currently subject to an estimated deposition rate of 14 kg N/ha/yr; this is above the critical load for raised and blanket bog of 5-10 kg/ha/yr. Sustained exceedance will promote the growth of problematic graminoids (particularly Molinia) and also encourage a shift towards more mesotrophic Sphagna (particularly S. subnitens and S. fallax) at the expense of key oligotrophic peat formers. Improvements in air quality are dependent on wider policy measures. In addition to influencing these at a European, UK and Wales level, CCW will in the vicinity of the mire encourage low intensity agriculture which avoids acute N emissions – for example poultry units and pig farms.	*Lower limit*: None set. *Upper limit*: 10 kg N/ha/yr.

4.2 Conservation Objective for Feature 2: Degraded Raised Bog (EU Habitat Code 7120)

Vision for Feature 2

The degraded raised bog at Cors Caron will be at Favourable Conservation Status where all the following are met –

- 80% of the degraded raised bog resource is restored to a point commensurate with the definition of active raised bog.

Performance indicators for feature condition		
Attribute	***Attribute rationale and other comments***	***Specified limits***
A1 Extent		*Upper limit :* Extent mapped in 1996 *Lower limit :* Extent mapped in 1996
A2 Habitat quality	Definitions: <u>Active secondary raised bog vegetation</u> In any 1m radius, a) *Sphagnum* cover is > 20% b) Cover of graminoids (grasses and cyperaceous species) other than *Rhynchospora* form <50% cover c) *Calluna vulgaris* forms <50% cover <u>Active peat forming pool vegetation</u> Vegetation where, in any 1m radius, *Sphagnum cuspidatum* and / or *S. pulchrum* form >20% cover	*Upper limit :* None set *Lower limit :* >50% of the sampling points are active secondary raised bog vegetation >10% of sampling points are active peat forming pool vegetation
Performance indicators for factors affecting the feature		
Factor	***Factor rationale and other comments***	***Operational Limits***
Factors and performance indicators are the same as for feature 1 (active raised mire)		

4.3 Conservation Objective for Feature 3: Depressions on Peat Substrates of the Rhyncosporion (EU Habitat Code 7130)

This feature forms an intimate matrix with Feature 1, Active Raised Mire and has therefore been included as part of the Performance Indicators for that feature. Refer to feature 1

4.4 Conservation Objective for Feature 4: Transition Mire (EU Habitat Code 7140)

Vision for Feature 4

The transition mire at Cors Caron will be at Favourable Conservation Status where all the following are met –

- The transition mire at Cors Caron occupies small areas scattered over a number of compartments.
- The transition mire will be a quaking raft of vegetation over soft peats with constantly wet surface for most of the year.
- Bottle sedge will be a dominant plant with other sedge species present. Devil's bit scabious, marsh cinquefoil and many headed cotton grass will also be seen.
- The ground layer will be dominated by bog mosses.
- Willow trees will be absent from the transition mire.
- All factors influencing the feature will be under control

Performance indicators for feature condition		
Attribute	***Attribute rationale and other comments***	***Specified limits***
A1. Extent	The current extent of the transition mire is limited to c. 1.5 ha. There is potential to increase this at the expense of poor quality Juncus and Molinia dominated pasture in the immediate area.	*Lower limit*: 1.5ha *Upper limit* : none set
A2. Vegetation quality	This habitat is composed of several different plant communities dominated by *sphagnum* moss, C*arex spp., Molinia caerulea* and *Juncus* spp. Other key spp. are *Carex rostrata, Potentilla palustris, Menyanthes trifoliata*. Under inappropriate management Juncus and Molinia will tend to become over-dominate at the expense of general sward diversity.	*Lower limit*: In at least 1 of the 3 monitoring plots established in 2004, >15% of the sampling points are good quality transition mire vegetation. *Upper limit* : none set Definition of **good quality transition mire** vegetation: In any 50cm radius – Sphagnum cover is >50% and at least 2 of *Carex rostrata, Potentilla palustris, Menyanthes trifoliata* are present and *Salix* saplings are absent.

Performance indicators for factors affecting the feature		
Factor	***Factor rationale and other comments***	***Operational Limits***
F1. Water levels	The transition mire is dependant on a high water table. The water table is mainly ground water fed. Most of this habitat is on the periphery of the NNR/SAC and closed to improved agricultural land which is drained. Any agricultural activity on the neighbouring land could have an impact on water levels on the transition mire. To date, subjective analysis of the situation indicates that there is no negative impact - water levels on the transition mire are at the surface for most of the year. If this situation changes, CCW may need to seek management agreements with the appropriate neighbour.	*Lower limit* : water table at the surface for 10 months of year and visible on foot-fall. *Upper limit* : none set
F2. Water quality	The ground water influence on this part of the system implies the potential for eutrophication/pollution from agricultural or other sources. However, the lack of intensive agricultural systems and industry in the Tregaron area means that the likelihood of pollution is minimal. Insufficient data currently exist on the water quality requirements of this feature and research is required to determine performance indicators.	No limits set until exact requirements determined through research. In lieu of this, there should be an absence of tall graminoids indicative of enrichment, notably Typha and Phragmites.
F3. Scrub	Because the areas of transition mire vegetation are both localised and small, the issue of scrub development is critical and none should be tolerated.	No scrub will be tolerated on the transition mire
F4. Burning	The abundance of *Molinia* in this vegetation type means that it is potentially flammable at certain times of the year. Burning is considered to be detrimental and must be prevented.	No fires shall be tolerated on the transition mire
F5. Grazing	Grazing in the transition mire is generally beneficial - it controls the dominance of rush and *Molinia* and therefore maintains structural and species diversity. All of this feature lies within an area subject to a NRA with the owner (management unit no?). The owner has a farm tenant and the tenant has entered the area into a Tir Gofal scheme.	

4.5 Conservation Objective for Feature 6: Otter *Lutra lutra* (EU species code 1355)

Otter is listed as an SAC feature for Cors Caron but is more appropriately dealt with under the Afon Teifi SAC plan. Refer to the Afon Teifi SAC plan for the conservation objective for Otter, this has not been repeated here in order to prevent duplication.

Conservation objectives for remaining (SSSI) features will be included at a later date.

4.6 Conservation Objective for Feature 6 Water vole

The conservation objective for this feature will be included at a later date

4.7 Conservation Objective for Feature 7 Marshy grassland

The conservation objective for this feature will be included at a later date

4.8 Conservation Objective for Feature 8 Swamp

The conservation objective for this feature will be included at a later date

4.9 Conservation Objective for Feature 9 Bryophyte assemblage

The conservation objective for this feature will be included at a later date

4.10 Conservation Objective for Feature 10 Invertebrate assemblage

The conservation objective for this feature will be included at a later date

4.11 Conservation Objective for Feature 11 Breeding bird assemblage

The conservation objective for this feature will be included at a later date

4.12 Conservation Objective for Feature 12 Rosy Marsh Moth

The conservation objective for this feature will be included at a later date

4.13 Conservation Objective for Feature 13 Large Heath Butterfly

The conservation objective for this feature will be included at a later date

4.14 Conservation Objective for Feature 14
Singa hamata

The conservation objective for this feature will be included at a later date

4.15 Conservation Objective for Feature 15
Raised mire stratigraphy

The conservation objective for this feature will be included at a later date

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 Features 1 – 4
Feature 1, Active Raised Bog (EU Habitat Code 7110)
Feature 2, Degraded Raised Bog (EU Habitat Code 7120)
Feature 3, Depressions on Peat Substrates of the Rhyncosporion (EU Habitat Code 7130)
Feature 4, Transition Mire (EU Habitat Code 7140)

The assessment of conservation status and management requirements are the same for these four features so all have been included in this section to avoid repetition.

Conservation Status of Features 1-4

Unfavourable Recovering

SAC monitoring carried out in September 2004 (CCW Environmental Monitoring Report No 6), indicates that the condition of the feature is unfavourable. Conservation Status is determined by whether appropriate management to control factors is in place which will, in time, lead to Favourable Conservation Status being achieved.

In consideration of the following requirements it is determined that for this feature appropriate management is in place and therefore the Conservation Status should be Unfavourable Recovering.

Management Requirements of Features 1-4

Hydrological management

Past peat cutting on the margins of the raised mires (in areas which are out with boundary of the SAC feature) is cited as the factor offering the most plausible explanation for the water-loss/shrinkage currently observed across the primary surface on all three domes at Cors Caron. The main courses of action to counteract the damaging effects of peat cutting, are to raise the water table by a continuation of the ongoing programme of blocking cuttings and associated drains with peat dams, and construction of large bunds on the marginal areas outside of the 'feature' area. This management should increase the height of the water table and stabilise its seasonal and inter-year variation across the areas of primary surface (the central domes - refer to Bunding & ditch blocking map). It is hoped that this will induce renewed or accelerated peat accumulation.

Consideration must also be given to blocking/in-filling or sluicing certain of the main drains that bisect the site as whole. At present CCW are obliged to maintain many of these as they provide drainage for parts of the site subject to agricultural tenancies and/or for neighbouring land. A project needs to be set up to establish which drains CCW can and should block/in-fill or sluice, which they must keep open, and which they might seek agreement to block. Where the blocking of a drain may restrict normal drainage or even flood adjacent land and/or land subject to a tenancy, negotiations and agreement/acquisition must be pursued - see above. Consideration must also be given to de-canalising the River Teifi (NB. the blocking/in-filling or sluicing of main drains or de-canalising the River Teifi is arguably more relevant to the management of the flood-plain mire (feature 4), but will have an overall impact on the hydrological budget of the site- entire so benefiting the raised mire.

It is not possible to define the condition of the habitats which we would wish to develop in the marginal areas. However, at present it is not necessary to do so, all ‘objectives' for these areas being definable in terms of operations, e.g. pressure-bunding, ditch blocking and scrub removal.

Scrub
Birch *Betula* spp. is colonising drier areas, principally on the higher ridges of old peat cuttings and to lesser extent on the raised bog domes. Scrub control operations must therefore continue. Priority areas for the removal of scrub have been determined and mapped. Some areas of existing wet broad-leaved woodland and willow carr will be allowed to develop.

Invasive species
Invasive *Rhododendron ponticum* is currently a minor problem on this site. Management to eradicate/control it must continue.

Burning
Fire presents a significant threat to the raised mire. This is most likely to be caused by neighbours burning *Molinia* dominated pasture to obtain an early bite for their livestock. There needs to be regular liaison with the neighbouring farmers to ensure their awareness of the vulnerability of the site to fire damage.

Agricultural tenancies
Parts of all three raised mires lie within areas subject to agricultural tenancies. This may present some obstacles in the progression of planned management work, as all operations must have the agreement of the relevant tenant. Concerns over stock safety may result in some resistance to operations that will raise the water table. Some renegotiation will be required when the period of current tenancies expires with an alteration of the terms of the agreement where necessary.

Peat cutting
Although this stopped many years ago, a small amount of 'demonstration' digging is carried out by CCW as part of interpreting the history of the site. This will be limited to ten peat turves per annum.

5.2 Conservation Status and Management Requirements of Feature 5 Otter *Lutra lutra* (EU species code 1355)

Otter is listed as an SAC feature for Cors Caron but is more appropriately dealt with under the Afon Teifi SAC plan. Refer to the Afon Teifi SAC plan for the Conservation Status and Management Requirements for Otter, this has not been repeated here in order to prevent duplication.

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.

15.02.08

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
001	000411	Cors Caron NNR raised bog	Managed by CCW. Management consists of ditch blocking, scrub control. Ditch blocking creates impacts on neighbours through rising of water levels therefore this has to be carried out with negotiation and agreement. Some ditches still remain to be blocked, mainly around the periphery of the site, agreements need to be sought. Some rhodendron control carried out.	Yes
002	000412	Cors Caron NNR grassland under grazing licence	Marshy grassland with grazing licence let. Ideally cattle grazing is preferred, ongoing discussions to try and achieve this.	Yes
003	000413	Cors Caron NNR grassland not under grazing licence	Ideally would be grazed but difficulties in getting appropriate stock to graze this area. Some scrub control is being carried out as a holding pattern	Yes
004	000414	Cors Caron NNR southern NRA	Under pony grazing through NRA, management is satisfactory at present. Agreement needs to be continued	No
005	000415	Cors Caron NNR northern NRA	Under NRA but tenant farmed and agreement needs to be made. Secure management not currently in place on this unit and needs to be achieved.	Yes
006	000416	Cors Caron NNR, Caemadog tenancy	Tenancy which has been in place for some years, the terms of this need to be renegotiated as the desired management is not currently in place. Appropriate grazing with cattle would ideally be sought.	Yes
007	000417	Cors Caron NNR, Maesllyn tenancy	Tenancy which has been in place for some time, the terms of this need to be renegotiated. River corridor restoration is required through changes in grazing and floodplain management. New agreement required to bring about changes to grazing management to facilitate this. Under Tir Gofal agreement.	Yes
008	000418	Cors Caron NNR Alltddu tenancy	Tenancy in place for some time, managed by grazing and currently satisfactory. Under Tir Gofal agreement	No

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
009	000419	Cors Caron NNR Brynhope tenancy	Tenancy agreement in place for some time, grazed by ponies, management currently satisfactory.	No
010	000420	Cors Caron NNR Cruglas tenancy	Farm business agreement, managed by grazing and currently satisfactory	No
011	000421	Cors Caron kettlehole	Area around the kettlehole managed by grazing though this is currently at a higher stocking density than is ideal	Yes
012	000422	Cruglas Farm outside NNR	Private ownership, grazing management, currently satisfactory	No
013	000423	Pengraig Farm	Private ownership, currently undergrazed, agreement required to improve grazing management.	Yes
014	000424	Dolfawr Farm	Under cattle grazing, currently satisfactory	No

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[2]:

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

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

[2] See JNCC guidance on Common Standards Monitoring http://www.jncc.gov.uk/page-2272

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 condition See **condition** and **condition assessment**

Favourable conservation status See **conservation status** and **conservation status assessment.**[3]

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.

[3] A full definition of favourable conservation status is given in Section 4.

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**.

Plan or project **Project:** Any form of construction work, installation, development or other intervention in the environment, the carrying out or continuance of which is subject to a decision by any public body or statutory undertaker.
Plan: a document prepared or adopted by a public body or statutory undertaker, intended to influence decisions on the carrying out of **projects.** Decisions on plans and projects which affect Natura 2000 and Ramsar 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**.

8. REFERENCES

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