

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

**CORE MANAGEMENT PLAN  
INCLUDING CONSERVATION OBJECTIVES**

**FOR**

**COED CWM EINION**

**Version:** 5 (Minor map edit, August 2012)

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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. 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.

Broadleaved woodland will cover the entire site and its varied structure will be maintained as far as possible by natural processes. Conifers and non-native broadleaved species will have been gradually removed and natural regeneration of native broadleaved species will be encouraged and will extend into the denser bracken and grassland areas. In the longer term all stages of tree growth from saplings to over-mature trees will be present. Gaps resulting from natural wind-blow caused by gales and natural tree death and the associated disturbance will promote the germination of dormant seeds in the ground. The available light and nutrients will support the growth of seedlings to saplings, forming in time the future canopy of woodland; thereby assuring the continuity and self-sustainability of Coed Cwm Einion.

The shrub layer and ground layer will be characteristic of the soil type, light availability and location of the woodland, with frequent Dog's Mercury, Bluebell, Enchanter's Night-Shade, Wood Avens, Herb Robert and False Wood-Brome. Primrose, Common Dog-Violet, Ground Ivy, Barren Strawberry, Germander Speedwell, Wood Speedwell, Wood Anemone and Lesser Celandine will be scattered throughout with meadow-grass and tufted hair-grass. Male-Fern, Broad Buckler-Fern and Lady Fern will occur in damp pockets.

Very light sheep grazing will occur in parts of the wood. Saplings of canopy species and shrubs like Hazel, Ivy, Honeysuckle and Bramble will provide a varied food source for Dormice, other mammals and the typical western woodland birds.

Throughout the wood there will be frequent dead and dying trees, standing and fallen, that provide a variety of habitat for woodland species dependant on dead wood at some stage of their lifecycle. Mosses and liverworts will clothe the trees and rock faces, supporting species associated with a variety of trees, rocks and soil types, including several nationally scarce species dependent upon the shaded, humid river gorge. Patches of bare rock, where tufts of mosses or liverworts have peeled away naturally, will provide opportunities for recolonisation and species succession. A rich variety of lichens will be present throughout the woodland from ground level to the high tree canopy, including the nationally rare and critically endangered lichen *Parmotrema robustum* found in the gorge.

## **2. SITE DESCRIPTION**

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

Grid reference: SN 691947

Unitary authority: Ceredigion County Council

Area (hectares): 20.3

Designations covered:

The Coed Cwm Einion SAC is notified as Coed Cwm Einion SSSI.

The SSSI has additional features that are not part of the cSAC interest features. Refer to Section 3.

Detailed maps of the designated sites are available on CCW's web page for this site.

### **2.2 Outline Description**

Coed Cwm Einion has developed on steep valley sides along a section of the Afon Einion. The SAC has been chosen as a prime example of *Tilio-Acerion* woodland, which describes small-leaved lime woodland on steep rocky slopes; this type of woodland is supported within more base-enriched areas of the site where ash dominates over oak and where wych elm occurs. *Tilio-Acerion* is a scarce habitat recognised as internationally important and Coed Cwm Einion is considered to support one of the best examples in Britain. Cwm Einion is also of Special Scientific Interest because it supports a good example of ancient semi-natural mixed broad-leaved woodland with sessile oak, rowan and downy birch. The associated shrub and ground layer of both the oak and ash components of Coed Cwm Einion are currently impoverished due to grazing pressure.

The woodland is important for its rich communities of ferns, lichens (177 species) and bryophytes (mosses and liverworts) (154 species). In addition to the rare lichen *Parmotrema robustum*, which is known to occur at only three other sites in Britain, there are 11 nationally scarce species of lichens, liverworts and mosses. Locally distinctive species, namely marsh hawk's-beard, Tunbridge filmy-fern and hay-scented buckler fern also occur here.

Bracken covers part of the hillside at the north-western end. The southern side of the SSSI is covered by Forestry Commission plantations mainly composed of beech, Douglas fir, Sitka spruce, Japanese larch and Lawson cypress. The plantations help maintain the shade and high humidity in the valley.

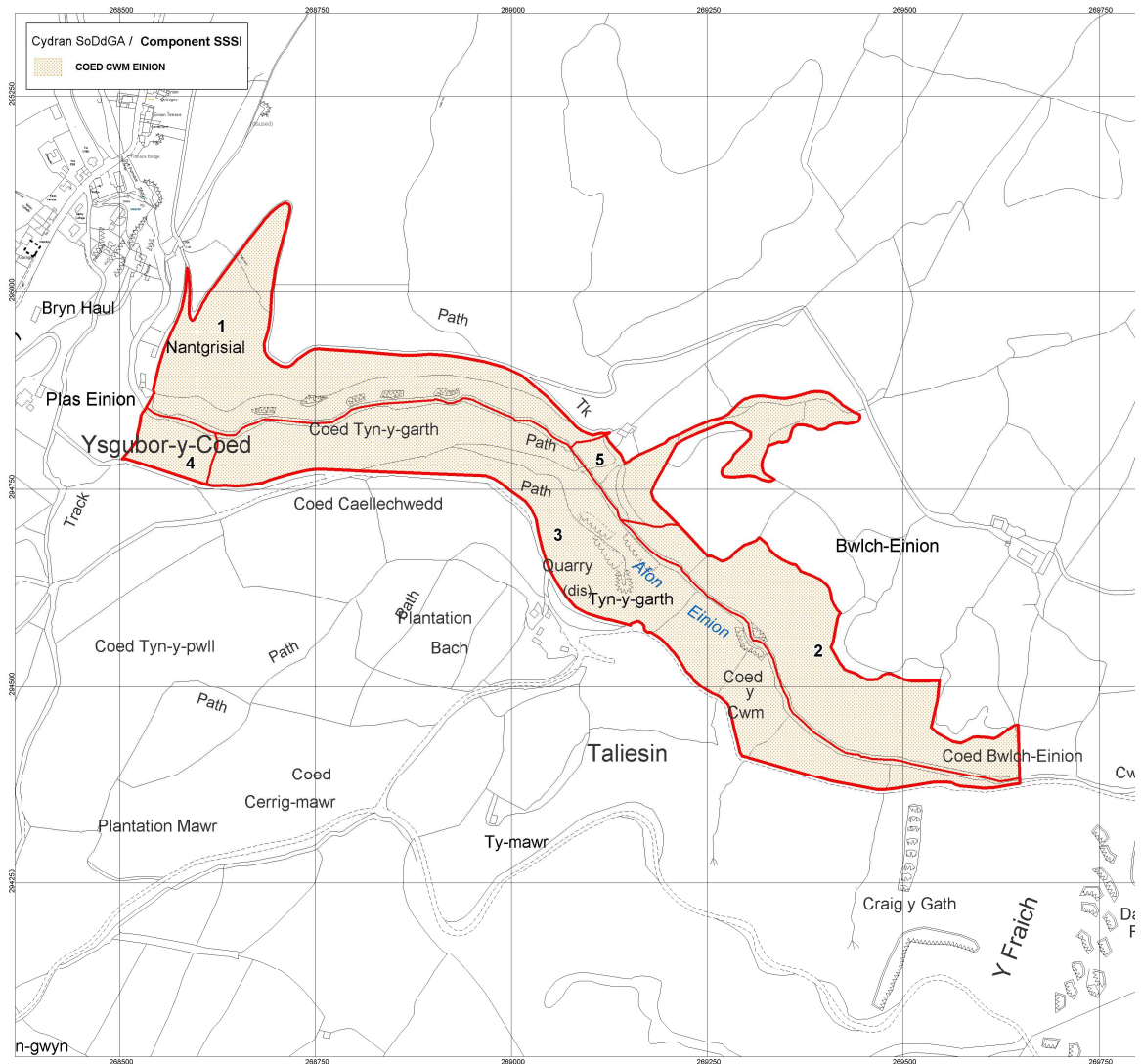
### **2.3 Outline of Past and Current Management**

Past clear felling, planting and coppicing activities have resulted in an even-aged canopy with poor crowns. This, coupled with a high percentage of non-native species, and heavy grazing by sheep in some areas, has inhibited the natural regeneration of native trees and shrubs and ground flora. The plantations are being progressively reduced through a mixture of sensitive clearing and thinning whilst ensuring the maintenance of high humidity levels essential to the lichen and bryophyte communities. Some planting has extended tree cover into the bracken dominated areas but generally there has been no woodland management to the north of the river. In places there are large quantities of dead timber. Some control of *Rhododendron* has commenced. Sheep graze part of the northern side of the site with severe effects on the ground flora. Current management plans cover land owned by FCW (Forestry Commission Wales) and the RSPB (Royal Society for the Protection of Birds).

## 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 tenure and management.

For a map showing the management units referred to in this plan please see attached Unit Map below.



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

Unit number	SAC	SSSI
1	✓	✓
2	✓	✓
3	✓	✓
4	✓	✓
5	✓	✓

### 3. THE SPECIAL FEATURES

#### 3.1 Confirmation of Special Features

<i>Designated feature</i>	<i>Relationships, nomenclature etc</i>	<i>Conservation Objective in part 4</i>
<i>SAC feature</i>		
<b>Feature 1</b> <b>Tilio-Acerion forests of slopes, screes and ravines (EU Habitat Code 9180)</b> <b>Annex I feature and the primary reason for selection of this site.</b>	Woodland classified in NVC community as W9a	1
<i>SPA features</i>		
Not applicable		
<i>Ramsar features</i>		
Not applicable		
<i>SSSI features</i>		
Other broadleaved woodland	Other woodland within the SSSI classified in NVC communities W7b, W17a, W17b and W17c.	2
Woodland bryophyte assemblage		3
NS/RDB lichen assemblage		4
NIEC lichen assemblage		5
RDB lichen species <i>Parmotrema robustum</i>		6

#### 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:

Coed Cwm Einion	Management unit				
	1	2	3	4	5
SAC	✓	✓	✓	✓	✓
SSSI	✓	✓	✓	✓	✓
<b>SAC features</b>					
1. Tilio-Acerion forests of slopes, screes and ravines	<b>KH</b>	<b>KH</b>	<b>KH</b>	<b>KH</b>	<b>KH</b>
<b>SSSI features</b>					
2. Other broadleaved woodland	<b>Sym</b>	<b>Sym</b>	<b>Sym</b>	<b>Sym</b>	<b>Sym</b>
3. Woodland bryophyte assemblage	<b>KS</b>	<b>KS</b>	<b>KS</b>	<b>KS</b>	<b>Sym</b>
4. NS/RDB lichen assemblage	<b>KS</b>	<b>KS</b>	<b>KS</b>	<b>KS</b>	<b>Sym</b>
5. NIEC lichen assemblage	<b>KS</b>	<b>KS</b>	<b>KS</b>	<b>KS</b>	<b>Sym</b>
6. RDB lichen species <i>Parmotrema robustum</i>	<b>x</b>	<b>x</b>	<b>KS</b>	<b>x</b>	<b>x</b>



#### 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<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.

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.

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<sup>1</sup> Available through [www.jncc.gov.uk](http://www.jncc.gov.uk) and follow links to Protected Sites and Common Standards Monitoring.

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#### **4.1 Conservation Objective for Feature 1:**

##### ***Tilio-Acerion* forests of slopes, screes and ravines (EU Habitat Code 9180)**

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#### **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 *Tilio-Acerion* woodland habitat will occupy a minimum area of approximately 6 hectares.
- The woodland will be maintained as far as possible by natural processes and receive minimum management intervention.
- Gaps in the woodland canopy will occupy 5-10% of the area. The location of open gaps/glades will vary over time in response to natural processes and occasional direct management.
- Trees and shrubs will be locally native broadleaved species such as sessile oak, downy birch, small leaved lime, ash, rowan, holly, elm, alder, hazel and crab apple.
- Non-native species such as beech, sycamore, rhododendron, laurel and conifers will have been gradually removed through a control programme and subsequent regeneration addressed.
- Trees and shrubs of a wide range of ages and sizes will be present, including mature canopy trees.
- Tree seedlings will be plentiful throughout the site and develop into saplings in the open glades.
- There will be abundant dead and dying trees with holes and hollows, rot columns, torn off limbs and rotten branches. Fallen dead wood will be dense enough to obstruct progress by foot across the entire site, except on established maintained paths.
- The field and ground layers will be rich in flowering plants, supporting species typical of *Tilio-Acerion*, such as hart's-tongue fern, broad buckler fern, enchanter's nightshade, wood avens, bluebell, herb Robert, dog's mercury, wood false-brome and common dog violet.
- Species of moss, liverwort, fungi and specialised invertebrates dependent on deadwood will be abundant throughout the area.
- The diversity of mosses, liverworts, lichens and fungi will be high, corresponding to the range of niches provided by the varied structure of the woodland.
- In rocky areas and in areas of thin acidic soil the ground layer will be a thick, continuous or fairly continuous carpet of mosses and liverworts with few other plant species present.
- Patches of dense bramble will be infrequent.
- Locally distinctive species, namely marsh hawk's-beard, Tunbridge filmy-fern and hay-scented buckler fern will continue to be present in the woodland at the locations recorded in past surveys.
- Grazing levels will be controlled to achieve regeneration while maintaining the lower plant interest.
- The woodland will support populations of birds including pied flycatchers, redstarts, wood warblers and mammals including several bat species, dormouse, otter and badger.
- All factors affecting the achievement of the foregoing conditions are 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 *Tilio-Acerion* forests of slopes, screes and ravines (Habitat 9180) at Coed Cwm Einion SAC.**

<i>Performance indicators for feature condition</i>		
<i>Attribute</i>	<i>Attribute rationale and other comments</i>	<i>Specified limits</i>
<b>A1.</b> Extent	No upper limit is set, the edaphic conditions and underlying geology will limit the potential maximum extent of <b>Tilio-Acerion woodland</b> on this site. Method: Comparison of aerial photographs taken during each monitoring cycle and confirmation at field survey.	<i>Upper limit:</i> <ul style="list-style-type: none"> <li>• None set</li> </ul> <i>Lower limit:</i> <ul style="list-style-type: none"> <li>• No decrease in extent of this feature except through natural events such as storm damage, wind-blow or disease. Mapped as <b>NVC community W9a:</b> 6.1 ha (1992) <u>and</u></li> <li>• no decrease in extent of <b>surrounding semi-natural woodland</b> except through natural events such as storm damage, wind-blow or disease (6.2 ha (1992)).</li> </ul>
<b>A2.</b> Canopy cover within the <b><i>Tilio-Acerion</i></b> woodland	The uniform age structure explains the absence of any significant gaps in the canopy in Units 1 and 2.	<i>Upper limit:</i> <ul style="list-style-type: none"> <li>• 10% of the area mapped as <b><i>Tilio-Acerion</i></b></li> </ul> <i>Lower limit:</i> <ul style="list-style-type: none"> <li>• 5% of the area mapped as <b><i>Tilio-Acerion</i></b></li> </ul>
<b>A3.</b> Natural processes and structural development	Characteristics indicative of a self-perpetuating natural woodland structure. Active intervention involving thinning/felling would accelerate recreation of a more natural structure. However this requires specialist advice in areas supporting notable lower plant communities.	Within any 25m <sup>2</sup> sample area <i>Lower limit:</i> <ul style="list-style-type: none"> <li>• 1 or more <b>native canopy forming trees</b> with girth &gt;50 cm (dbh) <u>and</u></li> <li>• 20% <b>shrub layer</b> comprised of locally native species (N.B. If greater than 60% remedy through grazing programme) <u>and</u></li> <li>• 2 or more dead trees, standing or lying, of &gt;20 cm diameter or equivalent</li> </ul>
<b>A4.</b> Regeneration	Characteristics indicative of a naturally regenerating woodland.	Within any 25m <sup>2</sup> sample area <i>Lower limit:</i> <ul style="list-style-type: none"> <li>• 20 or more ash <b>saplings</b> <u>and</u></li> <li>• more than 3 saplings comprised of locally native species such as sessile oak, downy birch, wych, rowan and alder</li> </ul>

<i>Attribute</i>	<i>Attribute rationale and other comments</i>	<i>Specified limits</i>
<b>A5.</b> Species composition of the <i>Tilio-Acerion</i> woodland	<p>The woodland canopy and shrub-layer will be comprised of locally native species</p> <p>The poor field layer in unit 5 is a special cause for concern. Monitor in spring or early summer.</p>	<p>Within any 25m<sup>2</sup> sample area</p> <p><u>Canopy and shrub-layer</u> <i>Upper limit:</i></p> <ul style="list-style-type: none"> <li>No non-native species/exotics.</li> </ul> <p><i>Lower limit:</i></p> <ul style="list-style-type: none"> <li>Small-leaved lime (<i>Tilia cordata</i>) should continue to be present in each mapped section.</li> </ul> <p><u>Field and ground layer</u> <i>Lower limit:</i></p> <ul style="list-style-type: none"> <li>50% or more of the field layer should support vascular plants associated with <b>good quality ash woodland</b>. (N.B. areas currently subject to felling management are excluded from monitoring)</li> </ul>
<b>SSSI features</b>	<p>Note any species of note including marsh hawk's-beard (<i>Crepis paludosa</i>), Tunbridge filmy-fern (<i>Hymenophyllum tunbridgense</i>) and hay-scented buckler fern (<i>Dryopteris aemula</i>).</p> <p><u>The Red Data Book lichen species <i>Parmotrema robusta</i> was photographed to scale by AH in 1999. Presence and coverage could be photographed (with scale) during combined monitoring visits.</u></p> <p><u>Woodland bryophyte and lichen assemblages</u> Atlantic and Nationally Scarce species including liverwort <i>Plagiochila atlantica</i> (NS). Specialist identification skills are required to monitor these features.</p>	
<i>Performance indicators for factors affecting the feature</i>		
<i>Factor</i>	<i>Factor rationale and other comments</i>	<i>Operational Limits</i>
<b>F1.</b> Livestock grazing	In the absence of any fencing between the woodland and the adjacent fields in Unit 5, grazing by sheep severely affects the ground flora and prevents tree and shrub regeneration	<i>Limits:</i> No grazing acceptable for at least 10 years, then review.
<b>Site specific habitat definitions</b>		
<b><i>Tilio-Acerion</i> forest</b>	Mixed broadleaf woodland on base-rich soils, in moist shady conditions, associated with ravines or rocky slopes. <i>Fraxinus excelsior</i> tends to dominate, but <i>Ulmus glabra</i> and <i>Tilia spp.</i> are usually present. The ground flora is often lush and diverse, and may be dominated by <i>Phyllitis scolopendrium</i> .	
<b>NVC community W9a</b>	<i>Fraxinus excelsior-Sorbus aucuparia-Mercurialis perennis</i> woodland, typical sub-community.	
<b>surrounding semi-natural woodland</b>	NVC W7b, W17a, W17b and W17c.	
<b>native canopy forming tree</b>	Any living tree contributing to the canopy (excluding <i>Acer pseudoplatanus</i> ) native to Coed Cwm Einion cSAC.	
<b>shrub layer</b>	Woody species of height 2-5m.	
<b>saplings</b>	Young tree specimens >3 m in height.	

<b>Site specific habitat definitions (cont.d)</b>	
<b>good quality ash woodland</b>	As described by NVC community W9a. Associate species include: hart's tongue-fern <i>Phyllitis scolopendrium</i> , broad buckler fern <i>Dryopteris dilatata</i> , enchanter's nightshade <i>Circaea lutetiana</i> , wood avens <i>Geum urbanum</i> , bluebell <i>Hyacinthoides non-scripta</i> , herb Robert <i>Geranium robertianum</i> , dog's mercury <i>Mercurialis perennis</i> , false wood-brome <i>Brachypodium sylvaticum</i> or common dog-violet <i>Viola riviniana</i> .
<b>Sampling period &amp; interval</b>	To be monitored once in every six year cycle between May-June.
<b>Sampling approach</b>	Selective. Sample at least one 25m <sup>2</sup> plot within each management unit. (Sampling approach may be subject to revision).
<b>Sampling method</b>	<ol style="list-style-type: none"> <li>1. Within each management unit assess the area that can be seen easily: this will approximate to a 25m<sup>2</sup> plot.</li> <li>2. Walk within the plot to assess the field layer but note that there is no need cover the entire plot thoroughly i.e. employ 'stopping rule'. Use the Monitoring Proforma to record the condition of each attribute within the plot, making additional notes where necessary.</li> <li>3. Photograph plots where light conditions are suitable.</li> <li>4. Note any recent or current management activity with reference to management unit. Support data with photographs.</li> </ol>
<b>Stopping rule</b>	When feature fails i.e. limits are clearly not going to be met, stop assessment for the particular attribute. Continue monitoring remaining attributes in order to inform management.

## RATIONALE

The Performance Indicators were developed by Tracey Lovering, West Region SAC Monitoring Officer, following JNCC woodland generic guidance (Kirby *et al*, 2002) and internal guidance from Jim Latham, CCW Woodland Ecologist.

### A1 Extent

**Lower limit:** Aerial photographs were flown from a baseline of 1993. The next flight should be flown in 2012 at the end of the 2<sup>nd</sup> cycle of SAC.

**Upper limit:** Since the condition of this feature is dependent on the survival of surrounding woodland (See Map 2. W7b, W17a, W17b and W17c), the management objective for the woodland is to increase the cover of the semi-natural woodland to include sessile oak wood, alder wood and additional areas occupied by coniferous plantation at present (within which selective felling is taking place) and associated open areas of grassland and bracken to the boundary of the site. The edaphic conditions and underlying geology influence the potential extent of the *Tilio-Acerion* forest.

### Quality

#### A2 Canopy cover within the *Tilio-Acerion* woodland

**Lower limit:** 10% of the area mapped as *Tilio-Acerion*

**Upper limit:** 5% of the area mapped as *Tilio-Acerion*

The canopy cover is currently only open in areas subject to felling of non-native species, except where occasional storm damage has left openings. Future management is likely to include felling or ringing

of standards to encourage a more open canopy in selected areas to enhance regeneration. These areas will be selected in consultation with the CCW lower plant ecologist to avoid trees that support important lower plant communities or notable species.

### **A3 Natural processes and structural development**

Within any 25m<sup>2</sup> sample area

**Lower limit: 1 or more native canopy forming trees with girth >50 cm (dbh)**

To avoid setting targets for percentage canopy cover, as advised by ECG, the above limit was agreed. Over-mature specimens are rare since the site was clear-felled in World War I. The majority of the site is ancient woodland. Past management has included coppice with standards. There is generally a good structure within the woodland but few mature specimens. Alder along the valley bottom appears to support the oldest specimens.

**20% shrub layer comprised of locally native species (N.B. If greater than 60% remedy through grazing programme)**

This target was agreed as easily measurable and realistic.

**and 2 or more dead trees, standing or lying, of >20 cm diameter or equivalent**

The target is easily measurable. Separate targets for standing and lying deadwood were not set for this site. Although standing and lying deadwood can support different flora and fauna the assumption is that if sufficient standing deadwood is available then this will ultimately contribute to the lying deadwood store through deterioration or storm damage. Also, setting a target for lying deadwood may render the feature as always unfavourable since lying deadwood is vulnerable to collection for firewood at this site. Part of Coed Cwm Einion is easily accessible, being adjacent to a minor road with public access available into the wood. Little can be done to prevent collection for firewood and it should be offset against the accumulation of deadwood possible in other inaccessible areas of the wood.

Management can add to the deadwood store. It is suggested that undesirable species of tree such as beech or sycamore (away from access routes) could be ring-barked as an alternative to felling and trees left in situ. Selective felling by the Forestry Commission, agreed through the management plan, could retain on site any non-commercial wood as an alternative to chipping and removal. This would also increase humidity in areas that have been severely affected by loss of humidity following felling. Retention of humidity is important for the bryophyte and lichen flora.

Another consideration affecting retention of deadwood is the topography of the site. Steep slippery slopes, particularly in inaccessible areas, lead down to the fast-flowing river. Deadwood will naturally descend to the watercourse and be either washed away or contribute to the build up of river debris; an attractive habitat in itself both for bryophytes and river fauna. The importance of the woodland for lower plants is described and this additional habitat is welcomed.

Deadwood may also be limited by management history (World War 1 clearance) and require decades of minimum intervention to achieve a more natural level (pers. comm. Jim Latham 2002).

### **A4. Regeneration**

Within any 25m<sup>2</sup> sample area

**Lower limit: 20 or more ash saplings**

*Tilio-Acerion* woodland occupying steep slopes with shallow soils may support unstable trees that create canopy gaps through tree fall. High nutrient levels and shade tolerance dominant species should result in vigorous regeneration supporting large numbers of (generally ash) seedlings and saplings under the canopy.

**and more than 3 saplings comprised of locally native species such as sessile oak, downy birch, wych, rowan and alder**

See notes below on composition. No targets were set for small-leaved lime saplings since it is known that regeneration is unreliable from seed source instead occurring from suckering and re-growth following windfall. The SSSI monitoring report (1998) sets a lower limit of 3 viable saplings per 0.1 ha of gap (c. 30 m<sup>2</sup> plot); no upper limit was set. Viable saplings describe healthy/vigorous native tree species reaching a minimum height of 1.5 m, but below 10 cm dbh, and include ash, small-leaved lime, sessile oak, downy birch, wych elm and alder. The size of sample plot used in 2002 approximates that proposed for SSSI monitoring.

#### **A5. Composition (trees and shrubs)**

Within any 25m<sup>2</sup> sample area

Canopy and shrub-layer

**Lower limit:** *Small-leaved lime (Tilia cordata) should continue to be present in each mapped section.*

Small-leaved lime is at its northerly limit of distribution here. Trees are spread along the valley bottom within Forestry Commission Block. These could be mapped and their continued presence at the site monitored from selected viewpoints e.g. lower limit: >3 specimens visible from no.1 point. Health & Safety issues restrict access to much of the site. The area of small-leaved lime is not likely to increase significantly as regeneration usually only occurs through suckering (e.g. from windblow trees).

**Upper limit:** **No non-native species/exotics.**

*Tilio-Acerion* in NE Wales may support sycamore, and it is recognised as characteristic of the habitat in continental Europe. Therefore, on some sites it can be treated as a natural component, but will require broad limits on extent due to its non-native status. However, the target is to eradicate sycamore from Coed Cwm Einion as its abundance is currently low and removal would negate any subsequent management of sycamore regeneration that may take place following the opening of areas of canopy. The target was set with the consideration that few *Tilio-Acerion* woodlands remain today in Wales that are not heavily dominated or influenced by sycamore. Coed Cwm Einion SAC is one such example and management to control any increase is desirable. The management option of ring-barking (away from access routes) was agreed; with a proviso that if death was slow and sapling growth from remaining seed stock became an issue then other methods of control would be sought. A few mature sycamores occur on the SW bank (FC section) but regeneration is not successful around these specimens possibly due to lack of canopy gaps. The northern side remains unsurveyed for sycamore. Parent specimens in problem areas could be killed and left as deadwood. It should be noted that sycamore bark can be important for both bryophyte and lichen assemblages since it is of low acidity. The SAC includes SSSI features of bryophyte and lichen assemblages so careful consideration is required before felling management.

Field and ground layer

**Lower limit:** **50% or more of the field layer should support vascular plants associated with good quality ash woodland. (N.B. areas currently subject to felling management are excluded from monitoring)**



A small part of the northern boundary of the woodland is unfenced. Future management should seek agreement with the landowner over fencing off this side. The odd incident of grazing or agreed low seasonal stocking levels would be acceptable but it is clear that the current level is detrimental to the site, with impoverished ground flora and total lack of regeneration. Both lime and ash are very susceptible to grazing.

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## **4.2 Conservation Objective for Feature 2: Other broadleaved woodland**

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### **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:

- The woodland will be maintained as far as possible by natural processes and receive minimum management intervention.
- Gaps in the woodland canopy will occupy 5-10% of the area. The location of open gaps/glades will vary over time in response to natural processes and occasional direct management.
- Trees and shrubs will be locally native broadleaved species such as sessile oak, downy birch, small leaved lime, ash, rowan, holly, elm, alder, hazel and crab apple.
- Non-native species such as beech, sycamore, rhododendron, laurel and conifers will have been gradually removed through a control programme and subsequent regeneration addressed.
- Trees and shrubs of a wide range of ages and sizes will be present, including mature canopy trees.
- Tree seedlings will be plentiful throughout the site and develop into saplings in the open glades.
- There will be abundant dead and dying trees with holes and hollows, rot columns, torn off limbs and rotten branches. Fallen dead wood will be dense enough to obstruct progress by foot across the entire site, except on established maintained paths.
- Species of moss, liverwort, fungi and specialised invertebrates dependent on dead wood will be abundant, throughout the area.
- The diversity of mosses, liverworts, lichens and fungi will be high, corresponding to the range of niches provided by the varied structure of the woodland.
- In rocky areas and in areas of thin acidic soil, the ground layer will be a thick, continuous or fairly continuous carpet of mosses and liverworts with few other plant species present.
- Patches of dense bramble will be infrequent.
- Grazing levels will be controlled to achieve regeneration while maintaining the lower plant interest.
- Locally distinctive species, namely marsh hawk's-beard, Tunbridge filmy-fern and hay-scented buckler fern will continue to be present in the woodland at the locations recorded in past surveys.
- The woodland will support populations of birds including pied flycatchers, redstarts, wood warblers and mammals including several bat species, dormouse, otter and badger.
- All factors affecting the achievement of the foregoing conditions are under control.

## Performance indicators for Feature 2

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.

<i>Performance indicators for feature condition</i>		
<i>Attribute</i>	<i>Attribute rationale and other comments</i>	<i>Specified limits</i>
A1. Extent of the woodland area	The upper limit reflects the aim to increase the extent of the wooded area at the expense of bracken and peripheral grassland, and by progressive conversion of existing conifer plantations, to cover total extent of site i.e. 20.3 ha.  Lower limit is based on current extent	<i>Upper limit:</i> 14.2ha (20.3-6.1) <i>Lower limit:</i> 6.2ha i.e. current extent)
<i>To be further developed</i>		

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### 4.3 Conservation Objective for Feature 3: Woodland bryophyte assemblage

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#### 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:

- The diversity of the woodland bryophytes (mosses and liverworts) will be high, corresponding to the range of niches provided by the varied structure of the woodland.
- In the vicinity of the gorge humid or wet rock faces on cliffs, crags and boulders will be adorned with mosses, liverworts and filmy ferns.
- The woodland bordering the gorge will be managed to maintain humid conditions.
- There will be abundant dead and dying trees with holes and hollows, rot columns, dead branches, torn of limbs etc.
- Fallen deadwood will be present in abundance.
- Patches of bare rock and bare wood on older living tree trunks or fallen timber, where wefts of mosses or liverworts have peeled away, will provide opportunities for recolonisation and species succession.
- There will be no signs of overgrazing of field or ground layers.
- All factors affecting the achievement of the foregoing conditions are under control.

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#### **4.4 Conservation Objective for Feature 4: NS/RDB lichen assemblage**

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##### **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:

- The number of NS/RDB lichen species will be high, corresponding to the range of niches provided by the varied structure of the woodland.
- Lichen flora will vary spatially according to the chemical properties of rock and tree surfaces and according to light levels.
- Patches of bare rock and bare wood on older living tree trunks or fallen timber will provide opportunities for recolonisation and species succession.
- The woodland bordering on the gorge will be managed to maintain humid conditions.
- There will be abundant dead and dying trees with holes and hollows, rot columns, dead branches, torn of limbs etc.
- Fallen deadwood will be present in abundance.
- There will be no signs of overgrazing of the field and ground layers.
- All factors affecting the achievement of the foregoing conditions are under control.

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#### **4.5 Conservation Objective for Feature 5: NIEC lichen assemblage**

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##### **Vision for feature 5**

The vision for this feature for it to be in a favourable conservation status is the same as Feature 4, where all of the conditions described under Feature 4 are satisfied.

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#### **4.6 Conservation Objective for Feature 6: RDB lichen species *Parmotrema robustum***

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##### **Vision for feature 6**

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 support a sustainable population of this rare lichen.
- Habitats on the site will be in optimal condition to support the lichen.
- A humid, shaded microclimate is maintained.
- Patches of bare rock provide opportunities for recolonisation and spread.
- Any woodland management proposals, especially for thinning/felling close to this lichen site, will be undertaken following advice from CCW Lower Plant Ecologist.
- All factors affecting the achievement of the foregoing conditions are under control.

##### **Other factors considered include**

**Weather conditions** – Prolonged dry weather will reduce water flow and may reduce humidity levels. This factor is outside the influence of the site manager and an operational limit is not required.

## **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.

The site is due to be monitored in spring 2011.

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### **5.1 Conservation Status and Management Requirements of Feature 1: *Tilio-Acerion* forests of slopes, screes and ravines (EU Habitat Code 9180)**

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

The 2002 SAC monitoring condition assessment described the feature as **Unfavourable Declining**. The principal reason for failure was the effect of uncontrolled sheep grazing in Units 1 and 2 leading to lack of regeneration, severely suppressed ground flora, physical damage to lower plant interest and soil erosion; the poor woodland structure with even aged trees, poor shrub layer and the presence of exotic tree and shrub species.

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

- Unit 1 was part fenced in November 2007, excluding stock from the woodland. In February 2009, stock were also excluded for most of the year from unit 2, with sheep only allowed into the woodland for a maximum 6 week period between November and February inclusive. The spread of bramble will be monitored and grazing levels adjusted as required to maintain lower plant interest. Unit 5 continues to be sheep grazed, but in agreement with the landowner, the aim is to also control grazing levels here.
- If natural tree fall proves insufficient to open up the closed canopy of ash in Units 1 and 2, consideration will be given to thinning or ring barking in small coupes to create gaps to speed regeneration. Trees would be selected to avoid examples supporting important epiphytic communities or single species of local or national importance to be lost. Consideration would also be given to the potential effects of loss of humidity resulting from local thinning to lower plant interest and it would only be undertaken following advice from CCW Lower Plant Ecologist. Management would be targeted at areas showing good regeneration of ash. In the long-term this would increase the canopy rotation of the stand so diversifying the age structure and reducing the risk of catastrophic event leading to major canopy loss, reducing the likelihood of a prolonged period of open canopy.
- Rhododendron bushes need to be removed from all 5 units. Work is underway in unit 4.
- Tree clearance may occur through routine power line clearance and maintenance of Public Rights of Way.

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### **5.2 Conservation Status and Management Requirements of Feature 2: Other broadleaved woodland**

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

The 2002 *Tilio-Acerion* monitoring assessment included assessment of the surrounding broadleaved woodland. This feature is also therefore assessed as **Unfavourable Declining**. The principal reason for

failure was the effect of uncontrolled sheep grazing in Units 1 and 2, the poor woodland structure and the presence of exotic tree and shrub species.

### **Management Requirements of Feature 2**

- Unit 1 was part fenced in November 2007, excluding stock from the woodland. In February 2009, stock were also excluded for most of the year from unit 2, with sheep only allowed into the woodland for a maximum 6 week period between November and February inclusive. The spread of bramble will be monitored and grazing levels adjusted as required to maintain lower plant interest. Unit 5 continues to be sheep grazed, but in agreement with the landowner, the aim is to also control grazing levels here.
- If natural tree fall proves insufficient to open up the closed canopy of ash in Units 1 and 2, consideration will be given to thinning or ring barking in small coupes to create gaps to speed regeneration. Trees would be selected to avoid examples supporting important epiphytic communities or single species of local or national importance to be lost. Consideration would also be given to the potential effects of loss of humidity resulting from local thinning to lower plant interest and it would only be undertaken following advice from CCW Lower Plant Ecologist. Management would be targeted at areas showing good regeneration of ash. In the long-term this would increase the canopy rotation of the stand so diversifying the age structure and reducing the risk of catastrophic event leading to major canopy loss, reducing the likelihood of a prolonged period of open canopy.
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- Mature seed-bearing beech should be gradually removed from Unit 4.
- Rhododendron bushes need to be removed from all 5 units. Work is underway in unit 4.
- Tree clearance may occur through routine power line clearance and maintenance of Public Rights of Way.

**Feature 2 is currently limited to Units 1, 2, 4 and 5. Unit 3 is undergoing a programme of gradual restoration from plantation forest to native broad-leaved woodland (Feature 2). Management in Unit 3 will consist of the following:**

- Beech and conifers should be gradually removed from Units 2 and 3 as part of the Plantation Ancient Woodland Site (PAWS) restoration work but conifers near the waterfall in the gorge should be retained to maintain the microclimate for lower plants.

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### **5.3 Conservation Status and Management Requirements of Feature 3: Woodland bryophyte assemblage**

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

No monitoring data is available

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

The woodland bordering on the gorge must be managed to maintain shaded and humid conditions. A variety of habitats to maintain the rich variety of bryophytes should include areas with bedrock, boulders and wet seepages and an abundance of fallen deadwood and dead and dying trees with holes and hollows, rot columns, dead branches, torn off limbs etc. There should be no signs of overgrazing or trampling.

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### **5.4 Conservation Status and Management Requirements of Feature 4: NS/RDB lichen assemblage**

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

No monitoring data is available.

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

The woodland bordering on the gorge must be managed to maintain shaded and humid conditions. A variety of habitats to maintain the rich variety of lichens should include different tree species of varying ages to provide continuity, and especially some mature and veteran trees, together with an abundance of fallen deadwood and dead and dying trees with holes and hollows, rot columns, dead branches, torn off limbs etc. There should be no signs of overgrazing or trampling. Applications of lime, herbicide and fertiliser on adjacent fields should be carefully controlled to avoid any air-borne contamination to the lower plant features that depend on clean air.

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#### **5.5 Conservation Status and Management Requirements of Feature 5: NIEC lichen assemblage**

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

No monitoring data is available.

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#### **5.6 Conservation Status and Management Requirements of Feature 6: RDB lichen species *Parmotrema robustum***

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#### **Conservation Status of Feature 6**

*Parmotrema robustum* was re-visited in-house in 1999 and was recorded as reduced in size. However, the loss of part of the thallus may have occurred through natural processes as the remaining thallus appeared healthy. No assessment of feature condition was made. The continued presence and coverage could be photographed (with scale) during subsequent *Tilio-acerion* SAC feature monitoring visits.

#### **Management Requirements of Feature 6**

A humid, shaded microclimate must be maintained at this lichen's site deep in the river gorge. The agreed woodland management policy must ensure that any proposed operations, especially for thinning/felling close to this lichen site, require the closest scrutiny. Suitable habitat, such as patches of bare rock along the gorge, provide opportunities for further spread of this species. No disturbance should be permitted in the vicinity of the feature e.g. gorge scrambling.

## 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.

<b>Unit Number</b>	<b>CCW Database Number</b>	<b>Unit Name</b>	<b>Summary of Conservation Management Issues</b>	<b>Action needed?</b>
1	001972	RSPB land	An agreed management plan is in place. Control of non-native species, especially rhododendron, and also beech and sycamore, is needed.	Yes
2	001973	Bwlch-Einion fenced woodland	Management agreement signed 30/9/08. Allows sheep grazing in conjunction with adjacent fields for 6 weeks between November and February. Monitoring of sapling establishment required and also the requirement for gap creation and control of non-native species.	Yes
3	001974	Forestry Commission land	An agreed management plan is in place for continued gradual removal of non-native species.	No
4	001975	Coed Morgan	A management agreement with the new owner is in place (2008-2013), and control of beech, sycamore and rhododendron is underway.	Yes
5	006120	Bwlch-Einion grazed woodland	Woodland continues to be grazed in conjunction with adjacent fields. Control of grazing will be needed in the long-term to allow regeneration.	Yes

## 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>2</sup>:

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 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.

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<sup>2</sup> See JNCC guidance on Common Standards Monitoring <http://www.jncc.gov.uk/page-2272>



**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**.<sup>3</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.

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<sup>3</sup> A full definition of favourable conservation status is given in Section 4.

- 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**.

<b>Specified limit</b>	The levels or values for an <b>attribute</b> which define the degree to which the attribute can fluctuate without creating cause for concern about the <b>condition</b> of the <b>feature</b> . 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.
<b>Unit</b>	See <b>management unit</b> .
<b>Vision for the feature</b>	The expression, within a <b>conservation objective</b> , of the aspirations for the <b>feature</b> concerned. See also <b>performance indicators</b> .
<b>Vision Statement</b>	The statement conveying an impression of the whole site in the state that is intended to be the product of its <b>conservation management</b> . A ‘pen portrait’ outlining the <b>conditions</b> that should prevail when all the <b>conservation objectives</b> are met. A description of the site as it would be when all the <b>features</b> are in <b>favourable condition</b> .