

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

**CORE MANAGEMENT PLAN
INCLUDING CONSERVATION OBJECTIVES**

**FOR
Glannau Ynys Gybi SAC & Glannau Ynys Gybi SPA**

Incorporating:
**GLANNAU YNYS GYBI:HOLY ISLAND COAST SSSI,
TRE WILMOT SSSI**

GLANNAU RHOSCOLYN SSSI

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**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 sites named. It sets out what needs to be achieved on the sites, 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 sites. 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.

Glannau Ynys Gybi

The cliffs around South Stack display some of the most magnificent exposures of folded rocks in Britain. They are particularly important to study the effect of folding and fractures on different rock types.



The exposed geology of the site should continue to demonstrate fine exposures of folded Precambrian rock. These geological features should remain visible and accessible to geologists.

The vegetated coastal cliffs should remain largely undisturbed and support the endemic South Stack fleawort, golden samphire, rock sea lavender, hay scented buckler fern, juniper, ciliate strap-lichen and golden hair lichen.

At least 70% of the site should be covered by lowland and coastal heathland. The habitat should be of good quality characterised by of heather and western gorse with crossed leaved heath, deer sedge and Sphagnum moss in wet areas, spring squill near the coast and abundant short turf and open ground. It should provide habitat for a wide range of birds including skylark, linnet, stonechat and whitethroat, reptiles and insects including the silver studded blue and the potential for marsh fritillary to re-establish.

In some areas where there are rocky outcrops in heathland, the habitat should be favourable for the spotted rock rose which occurs in the thin crusts of soil with lichens and mosses and short grasses. Areas of herb rich neutral grassland may be maintained for their floristic, invertebrate and chough feeding value

Sixteen pairs of chough currently nest on the cliffs and a breeding population of this size or greater should be resident, aided by management of feeding zones in the surrounding area.

A breeding seabird colony with guillemot razorbill and puffins along with fulmar, kittiwake and peregrine, should be maintained.

Tre Wilmot:

At least two thirds of the site, mostly on the rock ridges will be covered by heathland, dominated by the purple and yellow flowers of the heathers and western gorse respectively. The taller, invasive European gorse should cover less than 10% of the site with only a few scattered patches of bracken and willow trees.

Between the ridges, where the ground becomes wetter, the ground should be dominated by purple moor grass pasture, with cross leaved heath, the yellow star-shaped flowers of the bog asphodel and the white heads of cotton grass. Where water floods the surface there should be black bog rush and the white blooms of grass of Parnassus.

There should be two main areas of open water on the site, containing a variety of plants, including the hair-like leaves of pillwort. Three-lobed water-crowfoot, with its waxy apple green leaves, should grow along sections of the muddy, poached edges of the pools and ditches on the site.

Rhoscolyn

At least 40%, but preferably up to 50-55% of the site should be covered by lowland and coastal heathland. The habitat should be of good quality with an abundance of heather and western gorse and should provide habitat for a wide range of birds, reptiles and insects. In areas where rocky outcrops jut out of the heathland, the habitat should be maintained in a condition suitable for the spotted rock rose which occurs in the thin crusts of soil with lichens, mosses and short grasses.

The exposed geology of the site should continue to be one of the best places in Great Britain to study folded Precambrian rocks. This geological feature should remain visible and accessible to bonafide geologists.

Eight pairs of chough currently nest on the cliffs and a breeding population of this size or greater should be resident, aided by sympathetic management of feeding zones in the surrounding area.

2. SITE DESCRIPTION

2.1 Area and Designations Covered by this Plan

Grid references: SH220893, SH381722.

Unitary authority: Isle of Anglesey

Area (hectares): SAC 464.27ha / SPA 608.04ha

Designations covered: This plan covers Glannau Ynys Gybi Site of Special Scientific Interest (SSSI), Tre Wilmot SSSI and Glannau Rhoscolyn SSSI which together comprise the Glannau Ynys Gybi Special Protection Area (SPA) under the EC Directive on the conservation of wild birds (79/409/EEC). Glannau Ynys Gybi SSSI and Tre Wilmot SSSI together comprise the Glannau Ynys Gybi Special Area of Conservation under the EU Habitats Directive

Detailed maps of the designated sites are available through CCW's web site:

<http://www.ccw.gov.uk/interactive-maps/protected-areas-map.aspx>

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

2.2 Outline Description

Glannau Ynys Gybi (South Stack)

This site is of special interest for its geological and biological features, including heathland and maritime grassland communities, coastal cliffs and ledges, its assemblages of vascular plants and birds, invertebrates and its solid geology. The site lies on the north west corner of Holy Island and includes the most westerly point on Anglesey. Holyhead lies immediately to the east.

The cliffs around South Stack lighthouse display some of the most magnificent exposures of folded sedimentary rocks in Great Britain, described by Greenly (1919) as an amazing revelation. The section is the type locality for the Monian South Stack Group, and includes the only known record of burrowing organisms *Skolithos* in the Mona Complex. The existence of these trace fossils has been cited in the support of a Cambrian, rather than a Precambrian, age for the exposures. The presence of clear sedimentary 'way-up' evidence in these cliffs provided critical evidence to Shackleton in his famous inversion of Greenly's stratigraphic sequence. More recently, the complex minor structures at South Stack have provided further evidence of great significance.

The coastal cliffs and the associated grassland and heaths are of major botanical interest. The South Stack fleawort *Tephroses integrifolia* subsp. *maritima* is not found anywhere else in the world and the nationally rare spotted rock-rose *Tuberaria guttata* occurs within the mosaic of heath and grassland communities above the cliffs, together with pale heath violet, *Viola lactea*. Other nationally scarce plant species on the cliffs include golden samphire, *Inula crithmoides* and the endemic rock sea-lavender *Limonium britannicum* subsp. *celticum* and *L. procerum* subsp. *procerum*. Juniper *Juniperus communis*, a locally uncommon plant, occurs on the cliffs and there are Atlantic bryophytes and ferns such as hay scented buckler fern *Dryopteris aemula*, Wilsons filmy fern *Hymenophyllum wilsonii* and Tunbridge filmy fern *H. tunbrigense*.

An extensive area of dry lowland heath of heather *Calluna vulgaris* and western gorse *Ulex gallii* covers the flanks of Holyhead Mountain. Scree along the western edge of the mountain supports a more diverse bilberry *Vaccinium myrtillus* subcommunity of this heather/ western gorse heath. Around the coastal margins heather /western gorse heath of the spring squill *Scilla verna* subcommunity grades into heather *Calluna vulgaris* /spring squill *Scilla verna* maritime heath. In wetter areas cross-leaved heath *Erica tetralix*, bogmoss *Sphagnum compactum* and deergrass *Scirpus cespitosus* dominate cross-leaved heath *Erica tetralix* wet heathland.

On rocky ledges and at the top of the cliffs the vegetation comprises the thrift *Armeria maritima* - common mouseear *Cerastium diffusum* maritime therophyte community. This generally forms rather sparse open turf with much bare ground; associated species include buckshorn plantain *Plantago coronopus* and kidney vetch *Anthyllis vulneraria*. On deeper soils above the cliffs is the cocksfoot *Dactylis glomerata* subcommunity of the red fescue - *Festuca rubra* Yorkshire fog *Holcus lanatus* grassland. These areas are characterised by a very thick sward with associated Spring squill, wild carrot *Daucus carota* and sorrel *Rumex acetosella*.

The cliffs support important seabird colonies; guillemots, razorbills and puffins combine to create one of the largest colonies of breeding auks in North Wales. Fulmar and kittiwake also nest on these cliffs together with peregrine and chough, the latter using the heathland and adjacent areas extensively for feeding. Within the heathland stonechat, skylark, linnets and whitethroat all breed regularly.

The site supports a good range of invertebrates including the silver studded blue *Plebejus argus*. Marsh fritillary *Eurodryas aurinia* has been recorded here in the past.

Tre Wilmot

This is a large area of acidic, lowland heath overlying a series of rocky ridges and intervening depressions, which give rise to a range of heathland vegetation communities. The well drained heath on the ridges is dominated by ling *Calluna vulgaris* and western gorse *Ulex gallii*, with spring squill *Scilla verna* and, on rock outcrops, English stonecrop *Sedum anglicum*. The lower-lying areas support wet heath or peatland communities, with species such as cross-leaved heath *Erica tetralix*, purple moor-grass *Molinia caerulea*, common cotton grass *Eriophorum angustifolium* and creeping willow *Salix repens*. Of particular note is a very large population of marsh gentian *Gentiana pneumonanthe* and, in small open water areas, pillwort *Pilularia globulifera*; both these species have decreased markedly over the country as a whole with progressive reclamation of their habitats. Three lobed water crowfoot *Ranunculus trilobata* also occurs here.

Glannau Rhoscolyn

Extending along the west coast of Holy Island, Anglesey for approximately 6.5 km (from Porthygaran to Silver Bay) and covering an area of approximately 157 ha, Glannau Rhoscolyn SSSI is an area rich in biological and geological features. This site is selected for its botanical, ornithological and geological features and has substantial marine biological interest.

Geological Interest

The coastal exposures around Rhoscolyn exhibit some of the finest examples of polyphase fold structures known in southern Britain and are amongst the most intensively studied sites of structural geological interest in the British Isles. The enormous wealth of minor structures exhibited by these exposures of Precambrian rocks has been the subject of numerous detailed

investigations which make them of crucial importance to our understanding of the deformation history of the Mona Complex. The site is the type locality of the Rhoscolyn Formation, the highest of the three units comprising the South Stack Group and also includes the contact between the South Stack Group and the overlying New Harbour Group where the controversial concept of a major tectonic discordance between the two units was originally invoked. Studies of the deformed sedimentary sequence exposed in and around the famous Rhoscolyn Anticline have enabled the correlation of stratigraphical units across Holy Island and demonstrated the dramatic south-eastward thinning of the Holyhead Formation, a unit formerly called the Holyhead Quartzite. The recognition of sedimentary "way-up" evidence from this section was important in refuting the hypothesis of large-scale recumbent folding of the Mona Complex, as proposed by Greenly early in the 20th Century and in establishing that the stratigraphical succession is 'right-way-up'.

Botanical Interest

The majority of habitat within Glannau Rhoscolyn SSSI consists of lowland and coastal heathland together with several rush pasture and mire communities associated with the habitat. The area demonstrates an important gradient of variation from the distinctive maritime heathland present on the upper slopes and summits of coastal cliffs and bluffs, through to dry heathland, then wet heathland with an abundance of moisture-loving plants and finally to rush pasture and mire.

At Glannau Rhoscolyn, maritime heath with abundant heather *Calluna vulgaris* and bell heather *Erica cinerea* is extensive over the seaward fringes of the site. In several places, but most notably in the vicinity of Porthygaran to the north of the site, the bell heather is reduced in abundance and replaced by cross-leaved heath *Erica tetralix*, forming a distinct maritime heath sub-community. The site contains the most extensive area of this type of sub-community in the West Gwynedd Area of Search. Four such sub-communities of maritime heath have been identified and all are represented at Glannau Rhoscolyn. Farther inland, dry heath predominates, characterised by heather *Calluna vulgaris* and western gorse *Ulex gallii*. Spring squill *Scilla verna* is particularly abundant throughout most areas of dry heath on the site along with a varied and often abundant lichen flora. Heath grass *Danthonia decumbens* characterises a small area of dry heath to the north of the rock outcrops at Pant yr Hyman. In the deeper, humic soils near to Silver Bay, wet heath, characterised by cross-leaved heath *Erica tetralix* and bog moss *Sphagnum compactum*, occupies small areas and there are frequent flushes along the interface between the coastal edge of the heath and grassland associations and the extensive, gently sloping rocky shoreline. These are characterised by thrift *Armeria maritima*, brookweed *Samolus valerandi*, sea milkwort *Glaux maritima*, bog pimpernel *Anagallis tenella*, marsh pennywort *Hydrocotyle vulgaris*, common yellow sedge *Carex demissa* and occasionally common spike-rush *Eleocharis palustris*.

At Pant yr Hyman, a series of rocky ridges support a mosaic of acidic grassland and coastal heathland where sheep's fescue *Festuca ovina*, bent grasses *Agrostis spp.* and early hair-grass *Aira praecox*, together with the ericaceous shrubs, heather *Calluna vulgaris* and bell heather *Erica cinerea*, are abundant. Other associated species include spring squill *Scilla verna*, English stonecrop *Sedum anglicum*, heath pearlwort *Sagina subulata* and birdsfoot *Ornithopus perpusillus*. It is on these rocky ridges and on similar ones at Ty'n y Mynydd (Porthygaran) that the Red Data Book species spotted rock rose *Tuberaria guttata* occurs. In this location, the species is on the edge of its geographical range. Only nine populations of the spotted rockrose are known in the UK; in addition to the two within Glannau Rhoscolyn SSSI, a further six locations are also found on Anglesey with the remaining site on Pen Llŷn.

A number of unusual mire associations have also been recorded as a part of the heathland system. Several perched salt-marsh rush *Juncus gerardii* stands add to the variety of the coastal communities towards the north of the site, near Porthygaran, along with a extensive

array of communities including soakaway characterised by Marsh St. John's Wort *Hypericum elodes* and bog pondweed *Potamogeton polygonifolius*, sea club-rush *Scirpus maritimus* swamp, inundation grassland (including red fescue *Festuca rubra*, creeping bent *Agrostis stolonifera* and silverweed *Potentilla anserina*) and a stand of common couch *Elymus repens* sand dune. Farther south, near Borthwen, a stand of black bog-rush *Schoenus nigricans* / blunt-flowered rush *Juncus subnodulosus* mire, with unusually frequent sea rush *Juncus maritimus* is present, as is a particularly distinctive stand of sharp-flowered rush *Juncus acutiflorus* / marsh bedstraw *Galium palustre* mire with a high cover of marsh pennywort *Hydrocotyle vulgaris* and common reeds *Phragmites*. A stand of the same community (*Juncus acutiflorus* / *Galium palustre*) is also found within the heathland communities near to Silver Bay, but with a high cover of sharp-flowered rush *Juncus acutiflorus*, making it a different sub-community to that found near Borthwen. Also within the Silver Bay heathland is a small area of mire characterised by abundant purple moor-grass *Molina caerulea*, tormentil *Potentilla erecta* and sweet vernal grass *Anthoxanthum odoratum*.

Maritime grassland is a relatively small component of the heathland areas but dominates the coastal slope and cliff top areas of the site between Pant yr Hyman and Borthwen. The habitat in this area is dominated by fescues, including red fescue *Festuca rubra* but there remains a variety of species present typical of maritime grassland. Species present include sea plantain *Plantago maritima*, buck's-horn plantain *Plantago coronopus* and Yorkshire fog *Holcus lanatus*. The site also has examples of maritime therophyte communities, characterised by thrift *Armeria maritima* and sea mouse-ear *Cerastium diffusum*.

Ornithological Interest

Two Annex 1 bird species breed within Glannau Rhoscolyn SSSI, the chough *Pyrhocorax pyrrhocorax*, for which the site is also selected, and the peregrine *Falco peregrinus*. Other species of interest are breeding shag *Phalacrocorax aristotelis*, raven *Corvus corax* and kestrel *Falco tinnunculus* which nest on the cliffs and populations of whitethroat *Sylvia communis*, wheatear *Oenanthe oenanthe* and stonechat *Saxicola torquata*, which are supported by the large areas of maritime heath and scrub.

Marine Interest

The site is of marine biological interest for its diverse algal communities and the presence of specialised communities such as bedrock overhangs. Exposure to waves and tidal currents varies markedly across the site, allowing a wide range of algal species to be represented in a relatively small area. In the sheltered sandy bay of Borthwen the eelgrass *Zostera marina* is found and the rugged bedrock towards the mouth of the bay supports dense communities of the foliose seaweed species including cuvie *Laminaria hyperborea*, *Mastocarpus stellatus*, serrated wrack *Fucus serratus*, egg wrack *Ascophyllum nodosum*, bladder wrack *Fucus vesiculosus*, channel wrack *Pelvetia canaliculata* and spiral wrack *Fucus spiralis*. Most of the bedrock cliffs of the site are exposed to strong swells from the south and west and as a result the band of rock influenced by sea-spray (the splash zone) is extensive. Lichens recorded from this zone include sea ivory *Ramalina siliquosa*, black shields *Leconora atra*, *Xanthoria parietina*, black tar lichen *Verrucaria maura*, *Caloplaca thallicola* and *Ochrolechia parella*. The south-facing cliffs are dominated by barnacles, brown seaweed and red algal turfs. As wave and tide-exposure increases towards the west many seaweeds are unable to persist and consequently the cliffs around Rhoscolyn Head are dominated by mussels and barnacles, with lower shore communities of kelp *Laminaria digitata*, dabberlocks *Alaria esculenta* and thongweed *Himantalia elongata*.

Numerous small bedrock overhangs on the lower shore around Borthwen support the breadcrumb sponge *Halichondria panicea*, the sponge *Hymeniacidon perleve*, the hydroid

Dynamena pumila, the bryozoans *Scrupocellaria reptans* and *Bugula fulva* and the ascidian *Sidnyum turbinatum*.

2.3 Outline of Past and Current Management

This landscape betrays a long history of human intervention from Neolithic times onwards. This has resulted in the extension of heathland from its restricted natural location on exposed cliff-tops to the mountain and plateaux by means of various extractive activities including grazing, burning, turf stripping and associated removal of nutrients. The result is a mosaic of heathers and gorse, grass and bog, rock, bare earth and scrub that constitutes heathland.

Agricultural use of these areas continued into the 20th Century. Grazing on Holyhead Mountain was probably abandoned in the early part of the century, use of common land grazing rights continued on Penrhosfeilw Common until the mid 1970s, while grazing of Porth Dafarch sections of the SSSI appears to have faltered during the 1980s, in part due to recreational pressures. Grazing of Tre Wilmot continues, albeit at a low level. At Glannau Rhoscolyn, grazing around the Ravenscroft caravan sites appears to have ceased after WWII, and at Silver Bay in the 1970s, again under pressure from recreational uses. Elsewhere, (Porth y Garan, Ty Wrideen, headland east of Borth Wen) grazing has generally been maintained along that section.

Holyhead Mountain and Penrhosfeilw Common are now managed by the RSPB under lease from the County Council. This includes a programme of controlled burns. This area is also prone to uncontrolled burns from third parties. Three other holdings have been managed under Agri-environment schemes (ESA).

Recreational pressures include the Anglesey Coastal Footpath, climbing at Gogarth and Rhoscolyn Head (including exemplary voluntary climbing bans on sensitive areas) offshore diving and canoeing. Much of the site (as common land and heathland) is declared statutory access land.

2.4 Management Units

The plan area has been divided into management units to enable practical communication about features, objectives, and management. These are numbered sequentially under each component SSSI. This will also allow us to differentiate between the different designations where necessary. In this plan the management units have been based on, variously, tenure, status and convenient management units.

See Summary Map and Maps 1 to 14 which accompany this plan.

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

Unit number	SAC	SPA	SSSI	Other
<i>SSSI Glannau Ynys Gybi</i>				
GyG 1	✓	✓	✓	<i>Crown Estate</i>
GyG 2	✓	✓	✓	<i>Local authority</i>
GyG 3	✓	✓	✓	<i>Local authority</i>
GyG 4	✓	✓	✓	<i>Local authority</i>
GyG 5	✓	✓	✓	<i>Local authority</i>
GyG 6	✓	✓	✓	

GyG 7	✓	✓	✓	
GyG 8	✓	✓	✓	
GyG 9	✓	✓	✓	
GyG 10	✓	✓	✓	
GyG 12	✓	✓	✓	
GyG 13	✓	✓	✓	
GyG 14	✓	✓	✓	<i>Local authority</i>
GyG 15	✓	✓	✓	<i>Local authority / RSPB</i>
GyG 16	✓	✓	✓	
GyG 17	✓	✓	✓	
GyG 18	✓	✓	✓	<i>RSPB</i>
GyG 19	✓	✓	✓	<i>Local authority / RSPB</i>
GyG 20	✓	✓	✓	
GyG 21	✓	✓	✓	
GyG 22	✓	✓	✓	
GyG 23	✓	✓	✓	
<i>SSSI Tre Wilmot</i>				
TW 1	✓	✓	✓	
TW 2	✓	✓	✓	
<i>SSSI Glannau Rhoscolyn</i>				
GR1		✓	✓	
GR2		✓	✓	
GR3		✓	✓	
GR4		✓	✓	
GR5		✓	✓	
GR6		✓	✓	
GR7		✓	✓	
GR8		✓	✓	
GR9		✓	✓	
GR10		✓	✓	
GR11		✓	✓	
GR12		✓	✓	
GR13		✓	✓	
GR14		✓	✓	
GR15		✓	✓	
GR16		✓	✓	
GR17		✓	✓	
GR18		✓	✓	
GR19		✓	✓	<i>Crown Estate</i>
GR20		✓	✓	
GR21		✓	✓	

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>
SAC features		
Annex I habitats that are a primary reason for selection of this site		
1. Vegetated sea cliffs of the Atlantic and Baltic coasts	Inc SSSI features: Maritime cliff Coastal heath	1
2. Northern Atlantic wet heaths with <i>Erica tetralix</i>	Inc SSSI features: Wet heath	2
3. European dry heaths	Inc SSSI features: Dry heath	3
Annex I habitats also present, but not qualifying feature or a primary reason for site selection		
4. Reefs	Inc SSSI features: Intertidal Rockpools, Marine Underboulder communities	4
5. Submerged or partially submerged sea caves	Inc SSSI features: Marine Caves and overhangs	5
Annex II species also present, but not qualifying feature or a primary reason for site selection		
6. Atlantic grey seal <i>Halichoerus grypus</i>	Breeding in sea caves and isolated beaches	6
SPA features		
7. Chough <i>Pyrhocorax pyrrhocorax</i>	Inc SSSI features: Chough	7
Ramsar features		
Not applicatble		
SSSI features		
Coastal heath	Part of Vegetated sea cliffs (SAC)	1
Coastal grassland	Glannau Rhoscolyn SSSI	
Dry heath	Part of European dry heath (SAC)	3
Wet heath	Part of Northern Atlantic wet heath (SAC)	2
Maritime cliff	Part of Vegetated sea cliffs (SAC)	1
Salt marsh	Small area (rare ecotone to heathland) at Porth y Garan	
8. Spotted rock-rose <i>Tuberaria guttata</i>	5 populations on dry heath	3
9. Golden hair lichen <i>Teloschistes flavicans</i>	On coastal cliffs	1
10. South Stack fleawort <i>Tephroses integrifolia</i>	On coastal cliffs Glannau Ynys Gybi SSSI	1
11. Ciliate strap lichen <i>Heterodermia leucomelos</i>	2 locations on coastal cliffs	1
12. <i>Cladonia peziziformis</i>	On coastal and dry heaths, GyG	3
13. <i>Juniperus communis</i>	Holyhead Mountain	3
14. <i>Cuscuta epithimum</i>	Parasitic on western gorse	3
Eel grass <i>Zostera marina</i>	In Borthwen	
15. Silver studded blue <i>Plebejus argus</i>	On dry heaths	3
Chough <i>Pyrhocorax pyrrhocorax</i>	Inc SPA feature 7: Chough	7
16. <i>Stryphus ponderosus</i>	Marine sponge in tidal rapids	

17. Vascular plant assemblage: Glannau Ynys Gybi SSSI: <i>Viola lactea</i> , <i>Inula crithmoides</i> , <i>Limonium binervosum</i> , <i>Euphorbia portlandica</i> , <i>Centaureum littorale</i> , <i>Tuberaria guttata</i> , <i>Trifolium occidentale</i> , <i>Tephrosia integrifolia</i> ssp. <i>Maritima</i> . Glannau Rhoscolyn: <i>Viola lactea</i> , <i>Inula crithmoides</i> , <i>Centaureum littorale</i> , <i>Tuberaria guttata</i> , <i>Zostera marina</i> .		17
Three-lobed water crowfoot <i>Ranunculus tripartitus</i>	On wet heath and muddy patches (Tre Wilmot)	
Pillwort <i>Pilularia globulifera</i>	In shallow pools on wet heath	
Marsh gentian <i>Gentiana pneumonanthe</i>	On wet heath (Tre Wilmot)	
Bog bush cricket <i>Metrioptera brachyptera</i>	On wet heath (Tre Wilmot)	
18. Intertidal Rockpools	In lower intertidal in Glannau Ynys Gybi SSSI	18
19. Marine Underboulder communities	In lower intertidal in Glannau Ynys Gybi SSSI	19
20. Marine Caves and overhangs	In upper shore caves in Glannau Ynys Gybi SSSI.	20
21. Exposed littoral rock	At Glannau Rhoscolyn SSSI.	21
22. Precambrian Geological structures	South Stack & Glannau Rhoscolyn	22

3.2 Special Features and Management Units_

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

Key Features

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

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

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

Other Features

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

- a) they are present in the unit but may be of less conservation importance than the key feature; and/or
- b) they are present in the unit but in small areas/numbers, with the bulk of the feature in other units of the site; and/or

c) their requirements are broader than and compatible with the management needs of the key feature(s), e.g. a mobile species that uses large parts of the site and surrounding areas.

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

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

x - Features not known to be present in the management unit.

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

Management unit										
<i>Glannau Ynys Gybi SSSI</i>	GYG 1	GYG 2	GYG 3	GYG 4	GYG 5	GYG 6	GYG 7	GYG 8	GYG 9	GYG 10
<i>SAC Annexe 1 habitats that are a primary reason for selection of this site</i>										
1. Vegetated sea cliffs of the Atlantic and Baltic coasts		KH		Sym	KH					
2. Northern Atlantic wet heaths with <i>Erica tetralix</i>				Sym						Sym
3. European dry heaths		Sym	KH	KH			KH	KH	KH	KH
<i>Annex I habitats also present, but not qualifying feature or a primary reason for site selection</i>										
4. Reefs	Sym									
5. Submerged or partially submerged sea caves	Sym									
<i>Annex II species also present, but not qualifying feature or a primary reason for site selection</i>										
6. Atlantic grey seal	Sym									
<i>SPA Annex I species</i>										
7. Chough		KS	KS	KS	KS		KS	KS	KS	KS
<i>SSSI features</i>										
Coastal heath land		KH		Sym	Sym				Sym	
Dry heath		Sym		KH			Sym	Sym	Sym	Sym
Wet heath				Sym						
Maritime cliff & associated ledges & crevices		Sym		Sym	Sym					
Intertidal	Sym									
Spotted Rock-rose)				Sym						
South Stack Fleawort)				Sym						
<i>Cladonia peziziformis</i>				Sym						
Juniper)				Sym						
Chough		KS	KS	KS	KS		KS	KS	KS	KS
Silver-studded Blue)		Sym	Sym	Sym						
<i>Stryphus ponderosus</i>	KS									
Assemblage of RDB and/or Nationally Scarce vascular plants		Sym	Sym	Sym	Sym				Sym	Sym
Marine Rockpools	KH									

Marine Under-Boulders	Sym								
Marine Caves and overhangs	Sym								
Marine Exposed rock	Sym								
Precambrian geology of England and Wales	Geo	Geo							

<i>Glannau Ynys Gybi SSSI</i>	GYG 12	GYG 13	GYG 14	GYG 15	GYG 16	GYG 17	GYG 18	GYG 19	GYG 20
1. Vegetated sea cliffs of the Atlantic and Baltic coasts			KH	KH	KH	KH	KH	KH	KH
2. Northern Atlantic wet heaths with <i>Erica tetralix</i>								KH	
3. European dry heaths	KH	KH		KH				KH	
7. Chough	KS	KS	KS	KS	KS	KS	KS	KS	KS
Coastal heath land				Sym	Sym	Sym	Sym	Sym	Sym
Dry heath	Sym			Sym				Sym	
Wet heath								Sym	
Maritime cliff & associated ledges & crevices			Sym	Sym	Sym	Sym	Sym		Sym
Golden Hair-lichen			Sym	Sym				Sym	
South Stack Fleawort			Sym	KS	KS	KS	KS	Sym	Sym
Ciliate Strap-lichen			Sym					Sym	
<i>Cladonia peziziformis</i>				Sym				Sym	
Dodder)				Sym	Sym		Sym	Sym	Sym
Chough	KS	KS	KS	KS	KS	KS	KS	KS	KS
Silver-studded Blue								KS	
Assemblage of RDB and/or Nationally Scarce vascular plants			Sym	Sym	Sym		Sym	Sym	Sym
Precambrian geology of England and Wales			Geo	Geo					

Management unit							
<i>Glannau Ynys Gybi SSSI</i>	GYG 21	GYG 22	GYG 23	GyG 3a	Tre Wilmot SSSI	TW1	TW2
<i>SAC Annex I habitats that are a primary reason for selection of this site</i>							
1. Vegetated sea cliffs of the Atlantic and Baltic coasts	KH	Sym	Sym				
2. Northern Atlantic wet heaths with <i>Erica tetralix</i>						KH	KH
3. European dry heaths		KH	KH	KH		Sym	Sym
<i>SPA Annex I species</i>							

7. Chough	KS	KS	KS	KS		KS	KS
<i>SSSI features</i>							
Coastal heath land		Sym	Sym				
Dry heath			Sym	Sym		Sym	Sym
Wet heath						KH	KH
Maritime cliff & associated ledges & crevices	Sym		Sym				
Spotted Rock-rose		KS					
Golden Hair-lichen		Sym					
South Stack Fleawort	Sym	Sym	Sym				
Juniper							
Dodder	Sym		Sym				
Three-lobed Crowfoot						Sym	
Pillwort						Sym	
Marsh Gentian						KS	Sym
Bog Bush Cricket)						KS	Sym
Chough	KS	KS	KS			KS	Sym
Silver-studded Blue		Sym	Sym			Sym	Sym
Assemblage of RDB and/or Nationally Scarce vascular plants	Sym	Sym	Sym			Sym	Sym

Management unit										
<i>Glannau Rhoscolyn SSSI</i>	GR1	GR2	GR3	GR4	GR5	GR6	GR7	GR8	GR8	GR 10
<i>SPA Annex 1 species</i>										
7 Chough	KS	KS	KS	KS	KS	Sym	Sym	KS	KS	KS
<i>SSSI features</i>										
Coastal heath land			Sym	Sym	Sym	Sym		Sym		
Coastal grassland										
Dry heath	KH	Sym	KH	KH	Sym	KH	KH	Sym		Sym
Wet heath			KH	KH						
Maritime cliff & associated ledges & crevices			Sym	Sym			Sym	Sym		Sym
Salt-marsh			Sym							
Spotted Rock-rose	Sym	Sym	Sym		KS	KS	KS			
Chough	KS	KS	KS	KS	KS	Sym	Sym	KS	KS	KS
Assemblage of RDB and/or Nationally Scarce vascular plants	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym
Precambrian geology of England and Wales								Geo	Geo	Geo

Management unit										
<i>Glannau Rhoscolyn SSSI</i>	GR 11	GR 12	GR 13	GR 14	GR 15	GR 16	GR 17	GR 18	GR 19	GR 20
<i>SPA Annex 1 species</i>										
7. Chough	KS	KS	KS				KS	KS	Sym	KS
<i>SSSI features</i>										
Coastal heath land	KH	KH					KH	KH		
Coastal grassland			KH	KH			Sym	KH		
Dry heath		Sym					Sym	Sym		KH
Wet heath							Sym			Sym
Maritime cliff & associated ledges & crevices	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym		
Fen -topogenous mires in valleys, basins and flood plains-							Sym			
Flush and spring - soligenous mire-							Sym	Sym		
Marshy grassland							Sym			
Intertidal									KH	
Ciliate Strap-lichen		Sym	Sym				Sym	Sym		
Chough	KS	KS	KS				KS	KS	Sym	KS
Assemblage of RDB and/or Nationally Scarce vascular plants	Sym	Sym	Sym	Sym			Sym	Sym	Sym	Sym
Marine Exposed rock					Sym	Sym			Sym	
Eel grass beds									KS	
Precambrian geology of England and Wales	Geo	Geo	Geo		Geo	Geo			Geo	

Management unit										
<i>Glannau Rhoscolyn SSSI</i>	GR 21									
<i>SPA Annex 1 species</i>										
7. Chough	KS									
<i>SSSI features</i>										
Dry heath	KH									
Chough	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 Monitoring¹.

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 Web link: <http://www.jncc.gov.uk/page-2199>

4.1 Conservation Objective for Feature 1: Vegetated sea cliffs of the Atlantic and Baltic coasts (including cliff & crevice vegetation, maritime grassland and maritime heath).-including:

Feature 9: Golden hair lichen *Teloschistes flavicans*

Feature 10: South Stack fleawort *Tephrosia integrifolia* ssp *maritima*

Feature 11: Ciliate strap lichen *Heterodermia leucomelos*

Feature 12: *Cladonia peziziformis*

Vision for feature 1

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

- Cliff and crevice vegetation, maritime grassland and maritime heath occurs throughout the site in appropriate areas and their relative extent and zonation are determined by topography, exposure, grazing and natural stochastic events (e.g. storms).
- The cliff vegetation is composed of native plants such as sea spurrey *Spergularia rupicola* Sea lavenders (*Limonium britannicum*, *L. procerum*, *L. binervosum*) and sea samphire *Crithmum maritimum*.
- Non-native plants, such as Hottentot fig *Carpobrotus edulis* or purple dew-plant *Disphyma crassifolium* are preferably absent or at least not spreading from their 2000 extent.
- Maritime Grassland occupies higher ledges on the coastal cliffs and the cliff-top.
- The following plants are common in the maritime grassland: red fescue *Festuca rubra*, thrift *Armeria maritima*; spring squill *Scilla verna* and sea plantain *Plantago maritima*
- Maritime Heathland occupies areas inland of the maritime grassland.
- The following plants are common in the maritime heathland: heather *Calluna vulgaris*; bell heather *Erica cinerea* Western gorse *Ulex gallii*, thrift *Armeria maritima*, sea plantain *Plantago maritima*, buck's horn plantain *Plantago coronopus* or spring squill *Scilla verna*.
- Competitive species indicative of under-grazing, particularly bracken *Pteridium aquilinum* and gorse *Ulex europaeus* and grass species indicative of improvement including creeping bent *Agrostis stolonifera*, cock's foot *Dactylus glomerata*, perennial rye-grass *Lolium perenne* and Yorkshire fog *Holcus lanatus* are largely absent from the heath.
- Sustainable populations of the plants which make up the Atlantic sea cliff rare plant assemblage will be present, notably, South Stack fleawort *Tephrosia integrifolia*, Sea lavenders (*Limonium britannicum*, *L. procerum*, *L. binervosum*) Golden hair lichen *Teloschistes flavicans* and Ciliate strap lichen *Heterodermia leucomelos*.
- All factors affecting the achievement of these conditions, including grazing intensity and burning, 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.

<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 Vegetated sea cliffs of the Atlantic and Baltic coasts (including cliff & crevice vegetation, maritime grassland and maritime heath).	<p>The zonation of seacliff vegetation, maritime grassland and heath is determined by topography, exposure, grazing and stochastic events. Storm periods lead to salt-burning of heather and grass and sometimes dramatic changes in vegetation for periods of years.</p> <p>There will be no anthropogenic activity that could alter the extent of features.</p> <p>There will be no measurable decline in the mapped extent of the feature at Penrhyn Mawr or Holyhead Mountain.</p>	<p><i>Upper limit:</i> As limited by other habitats, but not set.</p> <p><i>Lower limit:</i></p>
A2. Condition of the Vegetated sea cliffs of the Atlantic and Baltic coasts (including cliff & crevice vegetation, maritime grassland and maritime heath).	<p>Condition of the sea cliffs will be assessed by simple observation and absence of negative indicators (invasive alien species)</p> <p>Holyhead Mountain and Penrhyn Mawr: The maritime heath and maritime grassland will be monitored by rapid condition assessment. Plots locations will be chosen to confirm the quality of polygons judged to be ‘good quality’ and to give a detailed assessment of a representative set of polygon conditions. A habitat will be in favourable condition if at least 50% of plot points are ‘good quality’ examples.</p> <p>Condition of the two areas (Holyhead Mountain, Penrhyn Mawr) will be reported separately. An area will be in good condition if all habitat types present have overall ‘good quality’.</p>	<p><i>Upper limit:</i> presence of invasive alien species <i>Lower limit:</i> not set.</p> <p><i>Upper limit:</i> Not required <i>Lower limit:</i> 50% of sample plot points are ‘good quality’ examples.</p> <p>Criteria for good quality maritime heath: Within a 1m radius of each sampling point:</p> <ol style="list-style-type: none"> 1. Dwarf shrub cover is between 25 and 90%, and <i>Ulex gallii</i> forms no more than 50% cover. 2. At least one maritime species (<i>Armeria maritima</i>, <i>Plantago coronopus</i>, <i>P. maritima</i>, <i>Scilla verna</i>) and one other positive indicator species (<i>Danthonia decumbens</i>, <i>Euphrasia</i> spp., <i>Festuca</i> spp., <i>Hypochoeris</i> / <i>Leontodon</i> spp., <i>Lotus corniculatus</i>, <i>Potentilla erecta</i>, <i>Thymus polytrichus</i>)

		<p>are present.</p> <p>3. At least one 10cm x 10cm (or roughly “fist-sized”) area of bare ground present.</p>
		<p>Criteria for good quality maritime grassland: Within a 1m radius of each sampling point:</p> <ol style="list-style-type: none"> 1. At least one 10cm x 10cm (or roughly ‘fist-sized’) area of bare ground present. 2. Terricolous lichens are present. 3. At least two of the following positive indicator species are present Anthyllis vulneraria, Armeria maritima, Hypochoeris / Leontodon spp, Lotus corniculatus, Plantago coronopus, P. maritima, Potentilla erecta, Radiola linoides, Scilla verna, Thymus polytrichus

<i>Performance indicators for factors affecting the feature</i>		
Factor	Factor rationale and other comments	Operational Limits
F1. Grazing	<p>Maritime heath and some maritime grasslands require light grazing to maintain a good open structure and to prevent the heath becoming dominated by scrub, bracken and gorse, (which can in turn become a fire hazard). Cattle and ponies are preferable to sheep as they are less- selective grazers.</p> <p>The maintenance of short sward and open structure and the presence of dung fauna help to meet objectives for (feature 6) Chough.</p>	<p>Upper limit: Grazing levels must not lead to excessive poaching damage or reduction of dwarf-shrub cover to below 25% on maritime heath.</p> <p>Lower limit: The site will be lightly grazed by livestock for at least 3 months each year.</p>
F2. Burning	<p>Maritime heath is maintained by exposure to wind and salt and, in some cases light grazing. Burning is inappropriate in most cases.</p>	<p>Upper limit: none</p> <p>Lower limit: n/a</p>

4.2 Conservation Objective for Feature 2. Northern Atlantic wet heaths with *Erica tetralix* including Pillwort *Pilularia globulifera* , Three lobed water crowfoot *Ranunculus trilobata*, Marsh gentian *Gentiana pneumonanthe*, Bog bush cricket *Metrioptera brachyptera*.

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:

- Wet heath covers no less than the present mapped extent (*to be determined*)
- The following plants are common in the wet heath: heather *Calluna vulgaris*; cross-leaved heath *Erica tetralix*, bog moss *Sphagnum* spp. devil’s bit scabious *Succisa pratensis* and *Narthecium ossifragum*.
- Competitive species indicative of under-grazing, particularly bracken *Pteridium aquilinum*, purple moor-grass *Molinia caerulea* and western gorse *Ulex gallii* are kept in check.
- 70% of wet heath will be “good condition” wet heath.
- The wet heath supports sustainable (flowering) populations of marsh gentian, three-lobed water crowfoot, and pillwort.
- The wet heath supports a viable population of bog bush cricket.
- The wet heath contributes potential support of a meta-population of marsh fritillary.
- All factors affecting the achievement of these conditions are under control.

Performance indicators for Wet Heath

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 Wet Heath	Lower limit based on the habitat extent as defined by Phase II heathland Survey (Rose 199?).	<i>Upper limit:</i> none set <i>Lower limit:</i> tba
A2. Condition of Wet Heath	A rapid condition assessment of the best areas of European wet heath will decide whether at least 50% of the area would be expected to show ‘good quality’. More detailed sampling will be restricted to areas judged to be passing. Plots will be used to assess the largest areas of wet heath. The wet heath will be in favourable condition if at least 50% of points are ‘good quality’ examples.	<i>Upper limit:</i> Not required <i>Lower limit:</i> 50% of the Wet Heath vegetation is in good condition, characterised by vegetation where at each sample point: 1. Dwarf shrub cover is between 25 and 90%, and <i>Ulex gallii</i> and <i>Calluna vulgaris</i> total no more than 50% cover. 2. Ericoids >25%.

		<p>3. At least one of the following positive indicator species is present; <i>Anagallis tenella</i>, <i>Carex panicea</i>, <i>Gentiana pneumonthe</i>, <i>Hydrocotyle vulgaris</i>, <i>Pedicularis sylvatica</i>, <i>Potentilla erecta</i>, <i>Narthecium ossifragum</i>, <i>Sphagnum spp</i>, <i>Succisa pratensis</i>, <i>Trichophorum cespitosum</i>.</p> <p>4. <i>Molinia caerulea</i> < 50%</p> <p>5. <i>Pteridium aquilinum</i> and <i>Ulex europeaus</i> are absent.</p>
A3. Distribution of Wet Heath	<p>Lower limit based on management units where wet heath has been selected as a Key Habitat.</p> <p>Inc Tre Wilmot, Rhoscolyn (Porth y Garan), also found Penrhosfeilw common, Holyhead Mnt, Silver bay...</p>	<p><i>Upper limit:</i> not set</p> <p><i>Lower limit:</i> Good condition wet heath should be present in management units for which this is a key habitat as shown in table.</p>
Performance indicators for factors affecting the feature		
Factor	Factor rationale and other comments	Operational Limits
F1. Livestock grazing	<p>The wet heath vegetation has been maintained by traditional grazing practices. Without an appropriate grazing regime, the wet heath would become rank and eventually turn to scrub and woodland. Light grazing by animals - ideally cattle from April – November and ponies throughout year - is essential for maintaining the wet heath.</p> <p><i>Muddy patches from livestock poaching encourages three-lobed water crowfoot and pillwort.</i></p>	<p><i>Upper limit:</i> The grazing pressure must not be so high as to break down the vegetation structure and cause significant bare areas to appear.</p> <p><i>Lower limit:</i> The wet heath must be subject to sufficient grazing to prevent the growth of purple moor-grass tussocks and western gorse clumps from smothering the growth of small sedges, mosses and flowering plants.</p>
F2. Burning	<p>Burning can damage the bryophyte layer and encourages a vigorous re-growth of more competitive, fire-resistant species like purple moor-grass. However, marsh gentian thrives in bare peat after fire or appropriate grazing. Any necessary burning must be followed by grazing.</p>	<p><i>Upper limit:</i> 20% of wet heath burnt in any six year period</p> <p><i>Lower limit:</i> none set</p>
F3. Water Quality	<p>The wet heath is kept moist by precipitation and seepages. It is not subject to run-off from agricultural activities such as fertiliser application. It could still be affected by airborne pollutants such as lime drift from adjoining farmland or nitrous oxides from hydrocarbon combustion.</p>	<p><i>Upper limit:</i> levels of pollutants must not exceed critical thresholds for vegetation types according to JNCC guidance</p> <p><i>Lower limit:</i> none set</p>

4.3 Conservation Objective for Feature 3: European dry heaths inc Feature 8 Spotted rock rose *Tuberaria guttata*, Feature 12 the lichen *cladonia peziziformis*, Feature 13 Juniper *Juniperus communis*, Feature 14 Dodder *Cuscuta epithymum* and Feature 15 silver studded blue butterfly *Plebejus argus*.

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

- Dry heath covers no less than the present mapped extent (*to be determined*)
- The following plants are common in the dry heath: heather *Calluna vulgaris*; bell heather *Erica cinerea*, western gorse *Ulex gallii*.
- Competitive species indicative of under-grazing, particularly bracken *Pteridium aquilinum*, purple moor-grass *Molinia caerulea* and western gorse *Ulex gallii* are kept in check.
- 70% of dry heath will be “good condition” dry heath.
- The dry heath provides abundant and accessible food for breeding chough.
- The dry heath supports sustainable (flowering) populations of dodder.
- Spotted rock rose occurs in at least 5 distinct loci (presently South Stack, Porth Dafarch north, Porth y Garan, Pany yr Hyman path, Pant yr Hyman heath) of at least 200 plants each.
- Juniper occurs in at least 3 locations totalling 50 plants.
- The dry heath supports a viable population of silver studded blue.
- All factors affecting the achievement of these conditions are under control.

Performance indicators for feature condition		
Attribute	Attribute rationale and other comments	Specified limits
A1. Extent of dry Heath	Lower limit based on the habitat extent as defined by Phase II heathland Survey (Rose 1994).	<i>Upper limit:</i> none set <i>Lower limit:</i> tba
A2. Condition of dry heath	A rapid condition assessment of the best areas of European dry heath will decide whether at least 50% of the area would be expected to show ‘good quality’. More detailed sampling will be restricted to areas judged to be passing. Plots will be used to assess the largest areas of wet heath. The wet heath will be in favourable condition if at least 50% of points are ‘good quality’ examples.	<i>Upper limit:</i> Not required <i>Lower limit:</i> 50% of the dry Heath vegetation is in good condition, characterised by vegetation where Within a 1m radius of each sampling point: <ol style="list-style-type: none"> 1. Dwarf shrub cover is between 25 and 90%, and <i>Ulex gallii</i> forms no more than 50% cover. 2. Two species of ericoids are present. 3. At least one of the following positive indicator species is present; <i>Carex</i> spp., <i>Danthonia decumbens</i>, <i>Galium saxatile</i>,

		<p><i>Genista anglica</i>, <i>Hypochoeris</i> /<i>Leontodon</i> spp., <i>Lotus corniculatus</i>, <i>Polygala serpyllifolia</i>, <i>Potentilla erecta</i>, <i>Rumex acetosella</i>, <i>Scilla verna</i>, <i>Thymus polytrichus</i></p> <p>4. <i>Pteridium aquilinum</i>, <i>Rubus fruticosus</i> agg. and <i>Ulex europeaus</i> are absent.</p>
A3. Distribution of dry Heath	<p>Lower limit based on management units where dry heath has been selected as a Key Habitat.</p> <p>Inc Tre Wilmot, Breakwater coast, Holyhead Mountain, Elins Tower, Rhoscolyn (Porth y Garan), also found Penrhosfeilw common, Holyhead Mountain, Silver Bay,</p>	<p><i>Upper limit:</i> not set</p> <p><i>Lower limit:</i> Good condition dry heath should be present in management units for which this is a key habitat (see table 3.2)</p>
<i>Performance indicators for factors affecting the feature</i>		
<i>Factor</i>	<i>Factor rationale and other comments</i>	<i>Operational Limits</i>
F1. Livestock grazing	<p>The dry heath vegetation was created by traditional grazing practices. Without an appropriate grazing regime, the dry heath becomes dense and impenetrable, with low species diversity and a thick litter layer – a fire hazard. Light grazing by livestock is essential for maintaining the dry heath in an open condition.</p> <p>Localised bare patches from livestock poaching provides access for feeding chough and maintains open conditions for silver studded blue.</p>	<p><i>Upper limit:</i> The grazing pressure must not be so high as to break down the vegetation structure and cause significant bare areas to appear.</p> <p><i>Lower limit:</i> The wet heath must be subject to sufficient grazing to prevent the growth of purple moor-grass tussocks and western gorse clumps from smothering the growth of small sedges, mosses and flowering plants.</p>
F2. Burning	<p>Burning can encourage profuse growth of western gorse at the expense of other components. However, it also creates early successional stages conducive to silver studded blue. Burning of dry heath must be accompanied by grazing.</p> <p>One twelfth of the area should be managed by burning or cutting each year. Therefore, all areas should be treated on a 12-year rotation</p> <p>Achieve dwarf shrub cover where ¼ of the vegetation has been cut or burnt within the last three years and is in early pioneer stage.</p>	<p><i>Upper limit:</i> ¼ of the vegetation has been cut or burnt within the last three years and is in early pioneer stage.</p> <p><i>Lower limit:</i> ¼ of the vegetation has been cut or burnt within the last three years and is in early pioneer stage.</p>

4.4 Conservation Objective for Feature 4: Reefs (including rockpools and underboulder communities, Atlantic grey seal, and the sponge *Stryphus ponderosus*)

TBA

4.5 Conservation Objective for Feature 5: Submerged or partially submerged sea caves (inc intertidal caves and underhang communities and Feature 6: Atlantic grey seal.

TBA

4.6 Conservation Objective for Feature 7: Chough

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

- The breeding population of Chough within the SPA is at least 18 pairs, of which at least 12 should be within the Glannau Ynys Gybi / Tre Wilmot SSSI and at least 6 should be within the Glannau Rhoscolyn SSSI.
- The non-breeding population of Chough is at least 18 individuals or 2.5 % of the GB wintering population.
- Sufficient suitable habitat (including Atlantic sea cliffs, maritime grassland, maritime heath, wet heath and dry heath) is present and in appropriate condition to support the breeding populations.
- All factors affecting the achievement of these conditions are under control.

<i>Performance indicators for feature condition</i>		
<i>Attribute</i>	<i>Attribute rationale and other comments</i>	<i>Specified limits</i>
A1. Breeding population	Based on performance indicators and targets as set out in the JNCC SPA review site account.	<p><i>Upper limit:</i> None set <i>Lower limit:</i> To contribute towards maintaining the Chough population in a favourable condition where, in 3 out of 5 consecutive years:</p> <ul style="list-style-type: none"> • The SPA breeding population is at least 18 pairs • The SPA breeding population represents at least 5% of the GB breeding populations
A2. Wintering population	Based on performance indicators and targets as set out in the JNCC SPA review site account.	<p><i>Upper limit:</i> None set <i>Lower limit:</i> To contribute towards maintaining the Chough population in a favourable condition where, in 3 out of 5 consecutive years:</p> <ul style="list-style-type: none"> • The SPA wintering population is at least 18 individuals.

		<ul style="list-style-type: none"> The SPA wintering population represents at least 2.5% of the GB wintering population.
A.2. Foraging habitat condition	The foraging habitat for chough will need to be in favourable condition for chough to be favourable. Sea cliff and dry heath are key habitats and should have available and accessible invertebrate prey – see Feature 1 & 3. Additional foraging habitat, e.g. grassland, may be required but only when the notified habitat is performing its function.	<i>Upper limit:</i> None set <i>Lower limit:</i> sea cliff and dry heath habitats are in favourable condition
Performance indicators for factors affecting the feature		
Factor	Factor rationale and other comments	Operational Limits
F1. Disturbance	Although chough are fairly accommodating to human presence, nest disturbance can be an issue. Recreational pressures need to be assessed for possible impact	<i>Upper limit:</i> no breeding attempts to be known to fail because of impact of human disturbance <i>Lower limit:</i> None set
F2. Food supply	Invertebrate populations. Dung invertebrates and leatherjackets in grassland are especially important. Limit use of Avermectin products in livestock prevents its use by dung invertebrates	<i>Upper limit:</i> none set <i>Lower limit:</i> no widespread use of Avermectin products (as evidenced by undecomposed cattle dung).
F3. Food availability	Invertebrates must be accessible to birds. Maintain short sward or broken tussocky structure and patches of bare ground that enables birds to probe food resources.	<i>Upper limit:</i> none set <i>Lower limit:</i> regular sightings of feeding chough in all units for which it is Key Species.

4.7 Conservation Objective for Feature 17: Vascular plant assemblage

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

- All component species are present.
- All factors affecting the achievement of these conditions are under control.

Performance indicators for feature condition		
Attribute	Attribute rationale and other comments	Specified limits
A1. Presence of component vascular plant species	The assemblage of rare vascular plants is an indicator of the general biodiversity of the site, reflecting the continuing presence of specific microhabitats, e.g. shallow pools (pillwort), mud (water crowfoot), thin soil crust (rock-rose) exposed seacliff (fleawort).	<i>Upper limit:</i> none set <i>Lower limit:</i> All species Present
A2. Condition of		<i>Upper limit:</i> Not required

Wet Heath		<i>Lower limit:</i>
A3. Distribution vascular plant assemblage components	Rare species should occur in more than one management unit in order to spread the risk of chance events or management failures leading to extinction Juniper, pillwort, 3-lobed water crowfoot, may all fail this test at present.	<i>Upper limit:</i> not set <i>Lower limit:</i> <ul style="list-style-type: none"> • Spotted rock rose occurs in at least 5 distinct loci (presently South Stack, Porth Dafarch north, Porth y Garan, Pany yr Hyman path, Pant yr Hyman heath) of at least 200 plants each. • Juniper occurs in at least 3 loci totalling 50 plants • South Stack fleawort: 5 year average >4000 plants • Other spp TBA
Performance indicators for factors affecting the feature		
Factor	Factor rationale and other comments	Operational Limits
F1. Livestock grazing	Appropriate grazing for habitat quality should also consider impact on assemblage species. Choice of livestock or timing of grazing can be crucial to permit flowering and seeding: T guttata: no summer sheep. T. integrifolius: limit sheep grazing R tripartitus. Heavy stock trampling required Juniper: avoid goats or high sheep stocking.	<i>Upper limit:</i> not set <i>Lower limit:</i> species dependent:
F2. Burning	Appropriate burning for habitat quality should also consider impact on assemblage species. Juniper: not fire resistant	<i>Upper limit:</i> <i>Lower limit:</i> none set

4.8 Conservation Objective for Feature 22: Precambrian geological structures

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

- The described geological features are visible for research or study.
- The geological features are accessible (within the limitations of natural terrain) for research or study.
- All factors affecting the achievement of these conditions are under control.

<i>Performance indicators for feature condition</i>		
<i>Attribute</i>	<i>Attribute rationale and other comments</i>	<i>Specified limits</i>
Presence of feature		<i>Upper limit: none set Lower limit: tba</i>
<i>Performance indicators for factors affecting the feature</i>		
<i>Factor</i>	<i>Factor rationale and other comments</i>	<i>Operational Limits</i>
A1. Visibility of feature	Development (car parks, slipways, ramps, sea defence structures etc) have the capacity to destroy or cover geological features and should be assessed accordingly	<i>Upper limit: no significant loss. Lower limit: n/a</i>
A2. Accessibility of feature	Access on foot for research & study is essential.	<i>Upper limit: no significant loss. Lower limit: none set</i>

5. ASSESSMENT OF CONSERVATION STATUS AND MANAGEMENT REQUIREMENTS

This part of the document provides:

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

5.1 Conservation Status and Management Requirements of Feature 1: Vegetated sea cliffs of the Atlantic and Baltic coasts

Conservation Status of Feature 1

The “vegetated sea cliffs of the Atlantic and Baltic coasts” feature is considered to be in unfavourable condition on this site (SAC) . The management of the steep cliffs (supporting cliff and crevice communities) is largely dependent upon natural processes (indeed in many instances is probably one of the few truly “natural” environments left in Britain) and only subject to domestic grazing livestock at the periphery. However the clifftop grassland and maritime heath component of this feature would normally be expected to support light levels of grazing which helps retain the open sward favourable to feeding chough (feature 7) and to the suite of rare and uncommon vascular plants and lower plants noted in this zone (features 8, 9, 10, 11, 12, 13, 14, 17,)

The 2007 feature monitoring report for Glannau Ynys Gybi SAC (*Creer and Pybus, in prep.*) finds the maritime grassland and maritime heath to be in unfavourable condition due to the dense grass thatch over many areas and lack of bare patches due to absence of grazing animals.

This unfavourable assessment holds true for much of the SSSI feature along the Glannau Ynys Gybi SSSI, except in locations where severe natural exposure (e.g. Breakwater Coast). In the Glannau Rhoscolyn SSSI, there are substantial areas of the maritime grassland and maritime heath features subject to light grazing pressure. However, two major sections, at Ravenscroft and Silver Bay, lack any recent grazing of the clifftop maritime grassland resulting, particularly in the latter case in a very dense grass thatch. There are also patches of *Disphyma crassifolium* smothering parts of the cliff and therefore that the overall condition assessment is unfavourable.

Management Requirements of Feature 1

- Where practical, light grazing should be restored to cliff-top grasslands. Preferably this should be with cattle or ponies which are less selective graziers than sheep – though it is notable that winter sheep grazing has been successfully implemented for many years on the headland “east of Rhoscolyn beach”. This action is particularly required on:
 - Holyhead Mountain
 - Penrhosfeilw common
 - Gof Du
 - Porth Dafarch E & W
 - Silver BayAnd needs to be maintained elsewhere.
- Monitor area of *Disphyma crassifolium* on cliffs and eradicate if practicable, notably on unitGR4, GR7.
- Avoid recreational activities that significantly erode sea-cliff vegetation, e.g. “cleaning” of new climbing routes.

5.2 Conservation Status and Management Requirements of Feature 2: Northern Atlantic wet heaths with *Erica tetralix*.

Conservation Status of Feature 2:

The condition of the wet heath feature within the SAC is “unfavourable declining”. This is largely due to the low / absent grazing pressure on the key wet heath areas on Tre Wilmot. The result is increasing levels of scrub, the decline of marsh gentian, pillwort and three-lobed water crowfoot. (*Creer and Pybus, in prep.*)

Management Requirements of Feature 2

- Restore adequate grazing management at Tre Wilmot & Silver Bay, units
- Establish controlled burning regime comprising long-rotation small burns bring wet heath into condition for grazing

5.3 Conservation Status and Management Requirements of Feature 3: European Dry Heaths.

Conservation Status of feature 3

The condition of the dry heath feature within the SAC is “unfavourable declining”. This is largely due to the low / absent grazing pressure on the key dry heath areas on Tre-Wilmot, Holyhead Mountain and Penrhosfeilw Common (The Range) and on Porth Dafarch E & W and Silver Bay, and in part to over-intensive fires on Holyhead Mountain. The result is increasing levels of western gorse *Ulex europaeus* in some areas, a dense, low diversity growth of heather and gorse, devoid of other heathland species in others, the development of a thatch of fescue grasses and a lack of early successional stages

with plenty of open spaces to provide for feeding chough, silver-studded blue etc. (*Creer and Pybus, in prep.*)

Management Requirements of Feature 3

- Restore adequate grazing management at, Tre-Wilmot, Holyhead Mountain and Penrhosfeilw Common (The Range) and on Porth Dafarch E & W and Silver Bay units
- Establish controlled burning regime comprising small burns to bring dry heath into condition for grazing, to reduce the fuel for wildfires and enable firebreaks to be established, both naturally by the action of livestock and artificially if necessary.

5.6 Conservation Status and Management Requirements of Feature 7: Chough

Conservation Status of feature 7

The condition of Chough within the SPA is considered to be “unfavourable declining”. This is because, despite the steady increase in breeding numbers over the past 30years, the utilisation of land within the SPA – notably heathland areas – by feeding birds appears to have diminished. Thus the SPA does not provide the support necessary to the breeding population and birds fly to adjacent farmland to feed. The condition of the vegetated sea cliffs of the Atlantic and Baltic coasts, wet heath and dry heath (features 1,2,3) reflect this diminished feeding potential (*Creer and Pybus, in prep.*). Specific factors include the scarcity of bare-ground, development of grass mat, absence of animal dung and associated invertebrate fauna and the use of anti-helminthic veterinary preparations which prevent the development of dung fauna.

Management Requirements of Feature 7

- Restore adequate grazing management, especially at Tre-Wilmot, Holyhead Mountain and Penrhosfeilw Common (The Range) and on Porth Dafarch E & W and Silver Bay units
- Establish controlled burning regime comprising small burns to bring wet and dry heath into condition for grazing, to reduce the fuel for wildfires and enable firebreaks to be established, both naturally by the action of livestock and artificially if necessary.
- Avoid disturbance to breeding caves and ledges
- Ensure that grazing stock are not regularly dosed with anti-helminthic veterinary products which prevent dung fauna (the prey of chough) from utilising the dung.

5.8 Conservation Status and Management Requirements of Feature 22: Precambrian Geological Structures

Conservation Status of feature 22

The condition of the Precambrian Geological Structures is considered to be Favourable.

Management Requirements of Feature 22

- Avoid activities (e.g. construction of sea defences and other structures) which cover the visible rock surface
- Maintain access for visiting students and researchers.

6. ACTION PLAN: SUMMARY

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

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
gyg1	001383	Intertidal	Current management favourable	No
gyg2	001384	Breakwater Park - coastal strip	Dense grass thatch in places due to absence of grazing reduces value for chough. Dog walking may discourage domestic stock access. High quality maritime heath must not be burnt.	Yes
gyg 3	001385	Breakwater country park	Current management favourable. Cliffs used for roosting chough. Maintain low disturbance levels. Permit grazing if achieved elsewhere on Holyhead Mountain.	No
gyg 4	001386	Holyhead mountain	Lack of grazing leads to build-up of heather / fuel and catastrophic fires leading to impoverishment of flora and fauna. Lack of short turf and dung invertebrates reduces value to feeding chough. Creation of firebreaks, animal tracks, short turf, long rotation controlled burns and regeneration patches required. Erosion from off-road vehicles is an increasing problem	Yes
gyg 5	001387	Ynys arw/North Stack	Current management favourable.	No
gyg 6	001391	North Stack House	Current management favourable.	No
gyg 7	001393	The Quillets	Lack of grazing (in parts) leads to build-up of heather / fuel and catastrophic fires leading to impoverishment of flora and fauna. Lack of short turf and dung invertebrates reduces value to feeding chough. Creation of firebreaks, animal tracks, short turf, long rotation controlled burns and regeneration patches required. Erosion from off-road vehicles is an increasing problem. Invasive species (Japanese knotweed, montbretia etc) pose threat to native vegetation.	Yes
gyg 8	001535	Twr Quarry	Lack of grazing (in parts) leads to build-up of heather / fuel and catastrophic fires leading to impoverishment of flora and fauna. Lack of short turf and dung invertebrates reduces value to feeding chough. Creation of firebreaks, animal tracks, short turf, long rotation controlled burns and regeneration patches required. Erosion from off-road vehicles is an increasing problem. Invasive species (Japanese knotweed, montbretia etc) pose threat to native vegetation.	Yes
gyg 9	001536	Masts and aerals	Lack of grazing leads to occasional catastrophic heath fires and impoverishment of flora and fauna. Presence of exotic varieties of heather in "landscaping" of BT aerals should be investigated with a view to replacement with local strains. Cooperation with wider grazing scheme required.	Yes

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
gyg 10	001537	Goferydd	Generally favourable management. Maintain.	No
gyg 12	001539	North of Haul y Gwynt	Lack of grazing leads to scrub and increasing fire / arson risk. Work with adjacent land and NW Fire Service to ensure firebreaks and controlled burning to reduce fuel load and permit grazing if possible.	Yes
gyg13	001540	South of Haul y Gwynt	Dense scrub, but as on periphery of site, is probably satisfactory at this level. Management acceptable.	No
gyg 14	001541	Ynys Lawd/South Stack	Lack of grazing leads to thick grass mat and lack of dung fauna, reducing value to feeding chough. Investigate possible use of sheep (such as soay) to address requirement.	Yes
gyg 15	001542	Ellins Tower heathland	Lack of grazing leads to dense heath and scrub, possible fire / arson danger and limits value to feeding chough. Requires firebreaks and controlled burns with light grazing. However, heavy recreational use of this compartment may limit burning and grazing operations.	Yes
gyg 16	001543	Tyn Nant	Generally favourable management. Steep cliffs with little grazing potential.	No
gyg 17	001544	Henborth	Some incursion of garden species onto cliff.	Yes
gyg18	001545	Gors Goch	Cliff. Current management favourable.	No
gyg19	001546	Penrhosfeilw Common/The Range	Lack of grazing for 25 years leads to occasional catastrophic burns. Dense undergrowth suppresses diversity of flora & fauna and, along with lack of dung fauna, reduces capacity for feeding chough. Requires fire breaks, long rotation controlled burns, removal of litter layer and reintroduction of light grazing.	Yes
gyg 20	001547	Gof Du	Lack of adequate grazing leading to thick grass mat, scrub invasion and absence of dung fauna reduces value to feeding chough. Recreational dog walking discourages traditional grazing practice. Information to dog walkers of long term impact of dogs on livestock, flora & fauna required to achieve temporary voluntary restraint.	Yes
gyg 21	001548	Copper Mine Creek	Minor unit on steep cliff face. Generally in favourable management.	No
gyg 22	001549	Porth Dafarch North	Inadequate grazing leading to thick grass mat, smothering rock-rose colonies and lack of dung fauna reduces value to feeding chough. Recreational dog walking on open access land discourages traditional grazing practice. Requires possible controlled burning, grazing scheme and information to public on the consequences of dogs on livestock flora & fauna inc voluntary dog restrictions during grazing periods.	Yes
gyg 23	001550	Porth Dafarch South	Inadequate grazing leading to thick grass mat and lack of dung fauna reduces value to feeding chough. Recreational dog walking on open access land discourages traditional grazing practice. Requires grazing scheme and information to public on the consequences of dogs on livestock flora & fauna inc voluntary dog restrictions during grazing periods.	Yes

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
tw 1	001551	Tre Wilmot	Inadequate grazing leading to scrub and bracken invasion. Build-up of heath vegetation and gorse encourages catastrophic fires. Requires firebreaks, controlled burns and regular grazing.	Yes
tw 2	001552	Bodwarren Farm	Inadequate grazing leading to scrub and bracken invasion. Build-up of heath vegetation and gorse encourages catastrophic fires. Requires firebreaks, controlled burns and regular grazing.	Yes
gyg 3a	002455	Breakwater Country Park - western quarries	Current management favourable. Cliffs used for roosting chough. Maintain low disturbance levels. Permit grazing if achieved elsewhere on Holyhead Mountain.	No
tw1	002592	Tre Wilmot		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 : <p style="margin-left: 40px;">Favourable: maintained; Favourable: recovered; Favourable: un-classified Unfavourable: recovering; Unfavourable: no change; Unfavourable: declining; Unfavourable: un-classified Partially destroyed; Destroyed.</p>
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.

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

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.
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

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

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

Creer J. and Pybus R., (2008) SAC feature monitoring. CCW report (in preparation)

Rose, R. J., (1994) . Phase II NVC Survey of Lowland Heaths in West Gwynedd. Site Report for Tre-Wilmot. CCW report.