

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

**CORE MANAGEMENT PLAN
INCLUDING CONSERVATION OBJECTIVES**

**FOR
CLOGWYNI PEN LLŶN/ SEACLIFFS OF LLEYN SAC**

including part of MYNYDD CILAN, TRWYN Y WYLFA AC YNYSOEDD SANT
TUDWAL SPA and part of GLANNAU ABERDARON AND YNYS ENLLI
/ABERDARON COAST AND BARDSEY ISLAND SPA

(These sites are underpinned by GALLT Y BWLCH SSSI, PORTH DINLLAEN I
BORTH PISTYLL SSSI, GLANNAU ABERDARON SSSI, MYNYDD
PENARFYNYDD SSSI, PORTH CEIRIAD, PORTH NEIGWL AC YNYSOEDD
SANT TUDWAL SSSI and YNYS ENLLI SSSI)

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A Welsh version of all or part of this document can be made available on request.



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Vegetated sea cliffs of the Atlantic and Baltic coasts (H7 *Calluna vulgaris* – *Scilla verna* heath, H8d *Calluna vulgaris*-*Ulex galli* heath, *Scilla verna* sub-community, MC8 *Festuca rubra* – *Armeria maritima*, MC9 *Festuca rubra* – *Holcus lanatus* and MC10 *Festuca rubra* – *Plantago spp* maritime grassland communities, coastal grassland and maritime cliff and slope).
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 - 5.2 Conservation Status and Management Requirements of Feature 2 (a and b):**
(Both Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA (a) and Glannau Aberdaron and Ynys Enlli SPA (b)). Internationally important population (1% or more of the Great Britain population) of breeding and non-breeding season chough *Pyrhcorax pyrrhcorax*.
 - 5.3 Conservation Status and Management Requirements of Feature 3:** (Glannau Aberdaron and Ynys Enlli SPA) Internationally important population (1% or more of the Great Britain population) of breeding Manx shearwaters *Puffinus puffinus*.
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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.

This site encompasses an extensive stretch of the Llŷn Peninsula from near Llithfaen on the northern coast, around the tip of the Llŷn and to Bwlchtochyn on the headland of Trwyn y Wylfa on the southern coast, including the island of Bardsey (Ynys Enlli). This geologically important coast with numerous diverse rock exposures supports maritime and coastal heath, maritime and coastal grassland and scrub woodland habitats, which in turn support a range of important vascular and non-vascular plants.

There will be no decrease in the areas of heathland present, and we will encourage restoration of the heathland, in terms of its extent and condition, aiming towards re-establishing the areas of heathland that existed (according to mapped evidence) in the early 20th century. This could be achieved by managed rotational cutting and/or burning of the dry heath, grazing management and the control of bracken and European gorse. Maintaining an open structure and diverse age-structure will ensure that the heath is available as a feeding habitat for chough.

The maritime and coastal grassland and maritime cliff and slope communities should not decrease in extent or condition. The grassland habitats are maintained by moderate grazing and by the maritime influence on the cliff-top vegetation. Changes in climatic conditions can lead to increases or decreases in storminess and associated high, salt-laden winds, which may affect the relative distribution of maritime grassland and maritime heath, habitats that are very much interlinked. Maritime therophyte, cliff and ledge and rock crevice vegetation communities are largely inaccessible and self-maintaining.

The heath at Trwyn y Gwyddel is also very important as it supports one of only two UK locations for the spotted rockrose, *Tuburaria guttata*. This plant is hanging on at the edge of its range, and is susceptible to overgrazing and trampling pressures, and control of these factors is necessary to ensure its continued survival. Also present at this site, and more abundantly on the southwestern slopes of Mynydd Enlli, are two nationally rare heathland lichens, the ciliate strap lichen *Heterodermia leucomela* and the golden hair moss *Teloschistes flavicans*. Pen y Cil supports a

population of the prostate broom *Cytisus scoparius subsp. maritimus*, occurring here as a very isolated outlier at the north of its range. Other rare plant assemblages are present on the mainland and on Ynys Enlli, and lichen and bryophyte assemblages are present on Ynys Enlli. The sites should continue to support healthy populations of all these species.

The pools and associated wet heath on Mynydd Cilan, which support a rare plant assemblage, should be carefully managed and restored where appropriate. The pools would benefit from increased grazing with heavy stock and occasional excavation on rotation. The increased area of pool margins will provide additional opportunities for the colonisation for the rare plant species.

There will be no decrease in the extent of soft cliff habitat mapped in 2003. This habitat occurs between Porth Dinllaen and Borth Pistyll and at Porth Neigwl, and is particularly important for rich soft cliff invertebrate assemblages, and species which are important in their own right such as the mason bee, *Osmia xanthomelana*, the weevil *Sitona gemellatus*, the bog bush cricket *Metrioptera brachyptera* and the grey bush cricket *Platycleis albopunctata*. The extent of the soft cliffs is unlikely to alter in the short term unless engineering works are carried out on the cliffs themselves. There should be no artificial sea defences or modification of flushes.

The sand dune and dune grassland areas should retain their current extent and provide an abundance of flowering plants, especially bird's-foot trefoil, which is the principal pollen source for the mason bee, *Osmia xanthomelana*. The natural drainage from the land above the cliffs should be maintained to protect the seepage areas, which are crucial for part of its life cycle.

There is a rare example of wind-pruned oak woodland at Gallt y Bwlch on the northern coast, which is just under 10ha in extent. The size and quality of this woodland should not decrease, and there is potential for it to extend naturally into areas of bracken and grassland.

The site should in total continue to support a strong breeding population of chough with at least 23 nesting pairs, with 4 of these on Ynys Enlli with potentially a 20% increase in breeding pairs. The site should also continue to provide sufficient habitat of sufficient quality to support this breeding population, and the non-breeding flocks. Maintenance of grazing of the grassland and heath, bracken control and rotational repair of the traditional cloddiau should be undertaken to maximise available feeding habitat.

Ynys Enlli should continue to sustain a breeding population of at least 10,000 pairs of Manx shearwaters. Their nest sites in the earth banks (cloddiau) in the lowlands of the island and in old rabbit burrows on Mynydd Enlli, and access to them, will remain undisturbed human impacts, boundary maintenance and heath management.

2. SITE DESCRIPTION

2.1 Area and Designations Covered by this Plan

Grid references: SH345440, SH270410 to SH332436, SH167263 to SH167301, SH225265, SH325265 to SH235274 and SH120220.

Unitary authority: Cyngor Gwynedd

Area (hectares): 1048.40

Designations covered:

Clogwyni Penllŷn / Seacliffs of Llein Special Area of Conservation (SAC) is underpinned by six Sites of Special Scientific Interest (SSSIs): Gallt y Bwlch SSSI, Porth Dinllaen i Borth Pistyll SSSI, Glannau Aberdaron SSSI, Mynydd Penarfynydd SSSI, Porth Ceiriad, Porth Neigwl ac Ynsoedd

Sant Tudwal SSSI and Ynys Enlli SSSI. Parts of the SAC are also designated as Special Protection Areas for their ornithological interest, namely Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA and part of Glannau Aberdaron and Ynys Enlli /Aberdaron Coast and Bardsey Island SPA. Ynys Enlli/Bardsey Island is also a National Nature Reserve (NNR), and the entire site falls within the Llyn Area of Outstanding Natural Beauty (AONB). This coast is also designated a Heritage Coast.

Detailed maps of the designated sites are available through CCW's web site:
www.ccw.gov.uk/sites (address tbc)

2.2 Outline Description

The Clogwyni Pen Llŷn SAC site occupies a large section of the coast of the Llŷn Peninsula, bordered by the Irish Sea and exposed to the prevailing winds and weather systems. Its habitats are necessarily influenced by its location, geology and the climate, and the coastal area supports some of the best remaining examples of coastal and maritime heaths and grasslands on the Llŷn. The site has been designated as a SAC for the internationally important habitat 'Vegetated Sea Cliffs of the Atlantic and Baltic Coasts'. This feature covers a range of habitats many of which are represented on this site, including hard and soft cliffs, maritime and coastal heath, maritime grassland and maritime therophyte communities. Dry heath is not currently included as part of this SAC feature, but it is intended to include this habitat as a SAC feature in the future since dry heath makes up a large percentage of this site and it is a notified feature of the component SSSIs. Ynys Enlli SSSI supports the largest areas of maritime grassland and maritime heath within Clogwyni Pen Llŷn. There are good examples of dry and coastal heath on the mainland at Mynydd Mawr, Mynydd Anelog, Mynydd Cilan and Mynydd Penarfynydd. Parts of Clogwyni Pen Llŷn are also an SPA for chough and Manx shearwater. There are six component SSSIs some of which have rare plant, lichen and invertebrate features. A complex relationship exists between the habitat, invertebrate, bird and lichen interest on the site.

2.3 Outline of Past and Current Management

This site includes a long stretch of the Pen Llŷn coast including three areas of common land, Mynydd Anelog, Mynydd Bychestyn and Mynydd Cilan and three offshore islands, Ynys Enlli, Sant Tudwals East and Sant Tudwals West, and management of different areas has obviously differed over time. Grazing levels and stock type have varied historically, although it is likely that grazing levels were much heavier previously. Areas of heath on the Llŷn have suffered severe decline since the war (Rees 1929) because of overgrazing and agricultural improvements, and that which remains is only a remnant of what once existed. More common problems these days relate to undergrazing and neglect leading to rank heath and bracken areas, and uncontrolled and too frequent burning, although there is still localised overgrazing. Continued sheep overgrazing is particularly a concern at Trwyn y Gwyddel where the last mainland UK site for spotted rockrose, *Tuburaria guttata* is clinging on. The overgrazing problem here is compounded by trampling problems due to walkers accessing the site.

The structure and composition of the heathland habitats vary across the site. Some good quality coastal heath is to be found, particularly on Ynys Enlli (where maritime heath is well represented), Mynydd Mawr (Trwyn y Gwyddel and Braich y Pwll), Mynydd Cilan and Mynydd Anelog, but in places the heath has become invaded by bracken. Bracken used to be cut and used for bedding historically, but this practice has not been carried through to the modern day. Large areas, particularly at Mynydd Anelog, north of Mynydd Cilan, Mynydd y Graig north of Mynydd Penarfynydd and along the coast from Porth y Pistyll northwards (where sections are not grazed at all due to fear of losing stock on open cliff slopes), are now dominated by bracken, which limits the areas available for chough to feed and for heathland vegetation to develop. The National Trust has

been active in controlling bracken at its holding at Muriau, and work has been carried out recently at Pen y Cil and on Ynys Enlli, but plenty remains to be managed. In some places, for instance at Mynydd Bychestyn, western gorse dominates, possibly due to climatic change since it is susceptible to frosts which occur less frequently nowadays, but almost certainly due to past overburning, and sheep grazing patterns which have an emphasis towards heavier grazing in the autumn and winter. Young gorse used to be milled locally, and used as nutritious feed, but this practice has died out. There would be a great advantage in introducing heavy stock at Bychestyn, and many other sections of this site, and cattle and/or pony grazing could be appropriate all year round at low levels. Trampling will help control bracken and open up new areas for heath colonisation. Cattle grazing has recently been reintroduced to Mynydd Enlli following gorse control and it is hoped this will help prevent gorse regeneration and bracken growth. Sheep grazing on these sites should be heaviest in the spring and early summer (April-July) as this will encourage livestock to remove young palatable gorse and grasses whilst allowing ericoids to regenerate. Sheep stocking levels should be much reduced or removed in autumn and winter (September-March) in heathland areas as this is the period when they do most damage to ericoids. Burning favours bracken and western gorse, so this should not be used as a management tool where these species are likely to invade. Cutting may be more appropriate, dependant on terrain, until vegetation has sufficiently recovered to allow a rotational burning management.

In 2005, a Management Schedule was drawn up for four sections of the site, Mynydd Anelog, Mynydd Penarfynydd, Mynydd Cilan, Mynydd Mawr, Mynydd Bychestyn and Pen y Cil, involving partners including NT, RSPB, Cyngor Gwynedd and CYMAD. Some of the work was implemented under the Cadw'r Lliw yn Llŷn project and the Natur Gwynedd grant, and further work will be implemented as part of the Llŷn Heaths Project which has just gained Heritage Lottery funding. Sympathetic grazing regimes with heavy stock, the establishment of cutting and burning of heath blocks on long rotation, and control of gorse and bracken form the backbone of these plans.

Mynydd Cilan common, an important area for dry heath, and for areas of wet heath and pools that support a suite of rare species, is grazed by sheep and a few ponies. The ponies tend to concentrate their grazing in the area around the pools where they do a good job in maintaining the wet heath and associated vegetation. Much botanical and invertebrate interest is found in and around these pools which are found primarily on the eastern edge of the site. The pools which, are probably man-made, vary in size from 0.06 ha to 0.4 ha. A programme of restoration management targeting those pools which have become in-filled with silt and vegetation and a phased programme of pool clearance has started to be implemented with work carried out in September 2007. This will open up new areas for colonisation by the rare species. Three-lobed water-crow's-foot *Ranunculus tripartitus* tends to prefer disturbed damp areas such as poached tracks and would benefit from grazing by heavy stock and more disturbance around the pools. Chamomile *Chamaemelum nobile* is found the largest pool in a short lawn; continued pony grazing is required to maintain the species.

The open fixed-dune grasslands above the cliffs of Porth Neigwl were more heavily grazed in the past, and it may be worth considering a Management Agreement to reintroduce heavier grazing, ideally with mixed stock. The marram grass has become denser over time, and we have resorted to mechanical and manual clearance of south-facing dune cliffs to provide potential nesting locations for the mason bee *Osmia xanthomelana*. The enclosed short maritime and dune grassland in the fields backing the dunes have been sheep grazed at appropriate levels for many years, allowing the *Lotus corniculatus* to flower to abundantly providing a nectar source for the bees. However, just last year, the grazing levels appeared far greater here preventing flowering, and the landowner stated that this was to benefit the chough who need close cropped grassland to forage for invertebrates. We need to ensure, possibly again as part of a management agreement, that this does not happen again since the previous levels were ideal for the chough and allowed flowering for the bees.

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, but these have been sub-divided where a species feature has over-riding importance which must inform land management requirements, such as Units 91 and 110 for mason bee *Osmia xanthomelana*, Unit 100 and 101 for rare vascular plant species associated with the pool and wet heath on Mynydd Cilan and Unit 46 for the spotted rockrose, *Tuberaria guttata*. The National Trust is a major landowner on this section of the coast and an important partner in managing the sites. None of the land within this site belongs to CCW.

A map showing the management units referred to in this plan is shown in Annex 1.

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

Unit No.	SAC	SSSI	SPA Glannau Aberdaron and Ynys Enlli	SPA Mynydd Cilan, Trywn y Wylfa ac Ynysoedd Sant Tudwal	NNR
Gallt y Bwlch SSSI					
1	✓	✓			
Porth Dinllaen i Borth Pistyll SSSI					
2	✓	✓			
3	✓	✓			
4	✓	✓			
5	✓	✓			
6	✓	✓			
7	✓	✓			
8	✓	✓			
9	✓	✓			
10	✓	✓			
11	✓	✓			
12	✓	✓			
13	✓	✓			
14	✓	✓			
15	✓	✓			
16	✓	✓			
17	✓	✓			
18	✓	✓			
19	✓	✓			
20	✓	✓			
21	✓	✓			
22	✓	✓			
23	✓	✓			
24	✓	✓			
25	✓	✓			
26	✓	✓			
27	✓	✓			
28	✓	✓			
Glannau Aberdaron SSSI					
29	✓	✓	✓		
30	✓	✓	✓		

31	✓	✓	✓		
32	✓	✓	✓		
33	✓	✓	✓		
34	✓	✓	✓		
35	✓	✓	✓		
36	✓	✓	✓		
37	✓	✓	✓		
38	✓	✓	✓		
39	✓	✓	✓		
40	✓	✓	✓		
41	✓	✓	✓		
42	✓	✓	✓		
43	✓	✓	✓		
44	✓	✓	✓		
45	✓	✓	✓		
46	✓	✓	✓		
47	✓	✓	✓		
48	✓	✓	✓		
49	✓	✓	✓		
50	✓	✓	✓		
51	✓	✓	✓		
52	✓	✓	✓		
53	✓	✓	✓		
54	✓	✓	✓		
55	✓	✓	✓		
56	✓	✓	✓		
57	✓	✓	✓		
58	✓	✓	✓		
59	✓	✓	✓		
60	✓	✓	✓		
61	✓	✓	✓		
62	✓	✓	✓		
63	✓	✓	✓		
Ynys Enlli SSSI					
64	✓	✓	✓		✓
65	✓	✓	✓		✓
66	✓	✓	✓		✓
Mynydd Penarfynydd SSSI					
67	✓	✓			
68	✓	✓			
69	✓	✓			
70	✓	✓			
71	✓	✓			
72	✓	✓			
73	✓	✓			
Porth Ceiriad, Porth Neigwl ac Ynysoedd Sant Tudwal SSSI					
74	✓	✓			
75	✓	✓			
76	✓	✓			
77	✓	✓			
78	✓	✓			
79	✓	✓			
80	✓	✓			

81	✓	✓			
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86	✓	✓			
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88	✓	✓		✓	
89	✓	✓			
90	✓	✓		✓	
91	✓	✓		✓	
92	✓	✓			
93	✓	✓		✓	
94	✓	✓		✓	
95	✓	✓		✓	
96	✓	✓		✓	
97	✓	✓		✓	
98	✓	✓		✓	
99	✓	✓		✓	
100	✓	✓		✓	
101	✓	✓		✓	
102	✓	✓		✓	
103	✓	✓		✓	
104	✓	✓		✓	
105	✓	✓		✓	
106	✓	✓		✓	
107	✓	✓		✓	
108	✓	✓		✓	
109	✓	✓		✓	
110	✓	✓		✓	
111	✓	✓		✓	
112	✓	✓		✓	
113	✓	✓		✓	
114	✓	✓		✓	
115	✓	✓		✓	
116	✓	✓			
117	✓	✓		✓	

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 features</i>		
<i>Annex 1 habitats that are a primary reason for selection of Clogwyni Pen Llŷn SAC:</i> 1. Vegetated sea cliffs of the Atlantic and Baltic coast, for which this is considered to be one of the best areas in the United Kingdom (EU Habitat code: 1230)	(MC8 <i>Festuca rubra</i> – <i>Armeria maritima</i>, MC9 <i>Festuca rubra</i> – <i>Holcus lanatus</i> and MC10 <i>Festuca rubra</i> – <i>Plantago spp</i> maritime grassland communities, coastal grassland and maritime cliff and slope) Atlantic sea cliff is also taken to include coastal heath (dry and maritime), and this feature covers the H8 <i>Calluna vulgaris</i>–<i>Ulex gallii</i> lowland heathland SSSI feature	Conservation Objective 1
<i>SPA features</i>		

<i>Annex 1 species that are a primary reason for selection of</i> <i>Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA</i> 2a The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain population of a species listed on Annex 1, in the breeding and non-breeding season: Chough <i>Pyrrhocorax pyrrhocorax</i> <table><tr><td>9^p breeding</td><td>2.6% GB</td></tr><tr><td>18ⁱ wintering</td><td>2.6% GB</td></tr></table> p = pairs i = individuals Data source: RSPB 2000	9 ^p breeding	2.6% GB	18 ⁱ wintering	2.6% GB	Chough utilise both the mainland and offshore islands for breeding and feeding.	Refer to Conservation Objective 1 in Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA Core Management Plan.
9 ^p breeding	2.6% GB					
18 ⁱ wintering	2.6% GB					
<i>Annex 1 species that are a primary reason for selection</i> <i>Glannau Aberdaron and Ynys Enlli/ Aberdaron Coast and Bardsey Island SPA</i> 2b. The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain population of a species listed on Annex 1, in the breeding and non-breeding season: Chough <i>Pyrrhocorax pyrrhocorax</i> <table><tr><td>14^p breeding</td><td>5% GB</td></tr><tr><td>28ⁱ wintering</td><td>5% GB</td></tr></table> p = pairs i = individuals Data source: RSPB 2000	14 ^p breeding	5% GB	28 ⁱ wintering	5% GB	Chough utilise both the mainland and offshore islands for breeding and feeding.	Refer to Conservation Objective 1 in Glannau Aberdaron and Bardsey Island SPA Core Management Plan.
14 ^p breeding	5% GB					
28 ⁱ wintering	5% GB					
<i>Annex 1 species that are a primary reason for selection of</i> <i>Glannau Aberdaron and Ynys Enlli/ Aberdaron Coast and Bardsey Island SPA</i> 3. The site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is used	Manx shearwaters breed on Ynys Enlli.	Refer to Conservation Objective 2 in Glannau Aberdaron and Bardsey Island SPA Core Management Plan.				

regularly by 1% or more of the Great Britain population of a species listed on Annex 1, in the breeding season: Manx shearwater <i>Puffinus puffinus</i> Data submitted Natura 2000: 6930 pairs (count as at late 1990s, 3.5% of the British population) Bird data submitted at time of classification (updated citation April 1992): About 4,300 pairs (2% of the British breeding population)		
SSSI features		
4. Coastal heath and grassland communities, including seacliff slope vegetation	Occuring on the mainland coast and on the islands.	Conservation Objective 1.
5. Nationally important flowering plants, including the vulnerable spotted rockrose, <i>Tuburaria guttata</i> and prostrate broom <i>Cytisus scoparius</i> subsp, <i>maritimus</i> .	Spotted rockrose occurs on Trwyn y Gwyddel on the mainland. Prostrate broom occurs on cliffs above Paradwys on the mainland.	Conservation Objective 1.
6. Two nationally rare heath lichens: Ciliate strap-lichen <i>Heterodermia leucomelos</i> and golden hair lichen <i>Teloschistes flavicans</i>	Occurring at Trwyn y Gwyddel on the mainland and on the south western slopes of Mynydd Enlli	Conservation Objective 1.
7. Assemblages of nationally important lichens, characteristic of different habitats: • An assemblage of lichens found growing on trees and other plants. • An assemblage of lichens of natural rock habitats. • An assemblage of lichens found on man-made structures.	Occuring on Ynys Enlli.	
8. A population of chough, an internationally protected bird species.	Also SPA feature. Birds use both the mainland and islands.	Conservation Objective 1. Refer also to Conservation Objective 1 in Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA Core Management Plan, and Conservation Objective 1 in Glannau Aberdaron and Bardsey

		Island SPA Core Management Plan.
9. Important geological exposures: • Porth Oer: Rocky raised shore platform and sediment sequences associated with glacial events about 20,000 years ago. • Braich y Pwll – Parwyd: Remarkably varied sequence of Precambrian rocks (over 670 million years old) overlain by younger Ordovician sediments (about 500 million years old). • Layered Ordovician intrusions at Mynydd Penarfynydd. • Penrhyn Nefyn: Precambrian rocks exposed on the foreshore • Penrhyn Bodeilas: exposures of an igneous intrusion recording volcanic activity on Llŷn during the Ordovician period • Outstanding sequence of glacial deposits from the last Ice Age exposed in the soft coastal cliffs of Porth Ceiriad and Porth Neigwl • Important Cambrian and Ordovician formations exposed along the coastal cliffs in Porth Ceiriad, Trwyn Llech-y-doll and Trwyn Carreg-y-tir. • Coastal geomorphological landforms and the processes controlling beach development and cliff erosion in Porth Neigwl.	Occuring on the mainland.	
10. Nationally important flowering plants, including the rare rock sea-lavender, <i>Limonium britannicum</i> subsp. <i>pharense</i>, nationally scarce small adder's tongue, <i>Ophioglossum azoricum</i>, western clover, <i>Trifolium</i>	Occuring on Ynys Enlli in therophyte and maritime grassland and cliffs.	Conservation Objective 1

<i>occidentale</i> and sharp rush <i>Juncus acutus</i>		
11. An assemblage of moss and liverwort species with restricted European distributions, including a number of rare and scarce species	Occuring on Ynys Enlli.	
12. Breeding population of the seabird Manx shearwater of European importance	Glannau Aberdaron and Ynys Enlli SPA feature. Occuring on Ynys Enlli.	Refer to Conservation Objective 2 in Glannau Aberdaron and Bardsey Island SPA Core Management Plan.
13. Wind-pruned oak woodland	Occuring at Gallt y Bwlch	
14. A population of the endangered mason bee <i>Osmia xanthomelana</i>	Occuring at Porth Neigwl and Porth Ceiriad.	Refer to Conservation Objective 4 in Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA Core Management Plan
15. A rare invertebrate assemblage associated with soft cliffs.	Occuring both at Porth Dinllaen i Borth Pistyll, and Porth Ceiriad and Porth Neigwl.	
16. The grey bush cricket, <i>Platycleis albopunctata</i>	Occuring at Porth Ceiriad and Porth Neigwl.	
17. The bog bush cricket, <i>Metrioptera brachyptera</i>	Occuring at Porth Ceiriad and Porth Neigwl.	
18. The endangered weevil, <i>Sitona gemellatus</i>	Occuring at Porth Dinllaen i Borth Pistyll	
19. An important area of M15 <i>Scirpus cespitosus</i> - <i>Erica tetralix</i> and M16 <i>Erica tetralix</i> - <i>Sphagnum compactum</i> wet heath with pools and associated rare plant assemblage comprising bog hair grass <i>Deschampsia setacea</i> , chamomile <i>Chamaemelum nobile</i> , pillwort <i>Pilularia globulifera</i> , three-lobed water- crowfoot <i>Ranunculus tripartitus</i> and pale dog-violet, <i>Viola lactea</i> .	This feature includes the pools rare plant assemblage which is an SSSI individually qualifying feature in its own right, but their management is so integral to that of the habitat that they are covered by the same conservation objective.	Refer to Conservation Objective 2 in Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA Core Management Plan.
20. A cliff vascular plant assemblage including dotted sedge <i>Carex punctata</i> , lanceolate spleenwort <i>Asplenium obovatum</i> , ivy broomrape <i>Orobancha hederaceae</i> , <i>Hypericum linarifolium x humifusum</i> , and Southern polypody, <i>Polypodium cambricum</i>	This feature is covered as part of the Atlantic sea cliff SAC habitat. The management of the cliffs rare plant assemblage is integral to that of the habitat, so they are covered by the same conservation objective.	Refer to Conservation Objective 1 in Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA Core Management Plan

21. An important area of sand dunes, dune grassland and dune heath	The population of the endangered mason bee <i>Osmia xanthomelana</i> is dependant on this habitat, and they are covered under the same conservation objective.	
22. A variety of high-quality shore types which represent the range and variation present on wave-exposed rocky shores in Cardigan Bay.	Most of the intertidal is included in Penllyn a'r Sarnau SAC which has its own Management Plan, but some sections are included in Clogwyni Penllyn, including Porth Oer and the coast around Mynydd Penarfynydd	

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:

- they are present in the unit but may be of less conservation importance than the key feature; and/or
- 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
- 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 sets out the relationship between the special features and management units identified in this plan:

Gallt y Bwlch SSSI	Management unit
	1
Clogwyni Pen Llyn SAC	✓
Glannau Aberdaron and Ynys Enlli SPA	
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA	
SSSI	✓
NNR	
SAC features	
1.Dry heath (Atlantic Sea Cliff)	KH
SSSI features	
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH
8. A population of chough, an internationally protected bird species.	Sym
13. Wind-pruned oak woodland	Sym

Porth Dinllaen i Borth Pistyll SSSI	Management unit								
	2	3	4	5	6	7	8	9	10
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA									
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA									
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH	KH	KH
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH	KH	KH
8. A population of chough, an internationally protected bird species.	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym
11. Important geological exposures at Penrhyn Nefyn and Penrhyn Bodeilas.	x	x	x	x	x	Sym	Sym	x	x
18. The endangered weevil, <i>Sitona gemellatus</i>	Sym	Sym	Sym	Sym	Sym	x	x	Sym	Sym

Porth Dinllaen i Borth Pistyll SSSI	Management unit								
	11	12	13	14	15	16	17	18	19
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA									
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA									
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH	KH	KH
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH	KH	KH
8. A population of chough, an internationally protected bird species.	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym
11. Important geological exposures at Penrhyn Nefyn and Penrhyn Bodeilas.	x	x	x	x	x	Sym	Sym	x	x
18. The endangered weevil, <i>Sitona gemellatus</i>	Sym	Sym	Sym	Sym	Sym	x	x	Sym	Sym

Porth Dinllaen i Borth Pistyll SSSI	Management unit								
	20	21	22	23	24	25	26	27	28
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA									
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA									
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH	KH	KH
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH	KH	KH
8. A population of chough, an internationally protected bird species.	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym
11. Important geological exposures at Penrhyn Nefyn and Penrhyn Bodeilas.	x	x	x	x	x	x	x	x	x
18. The endangered weevil, <i>Sitona gemellatus</i>	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	x

Glannau Aberdaron SSSI	Management unit								
	29	30	31	32	33	34	35	36	37
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mynydd Cilan, Twyn y Wylfa ac Ynysoedd Sant Tudwal SPA									
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	x	KH	KH	KH	KH	KH	KH	KH	KH
SPA features									
2. Chough	Sym	KS	KS	KS	KS	KS	KS	KS	KS
3. Manx shearwaters	x	x	x	x	x	x	x	x	x
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	x	KH	KH	KH	KH	KH	KH	KH	KH
5. Nationally important flowering plants, including the vulnerable spotted rockrose and prostrate broom	x	x	x	x	x	x	x	x	x
6. Two nationally rare heath lichens: ciliate strap-lichen and golden hair lichen.	x	x	x	x	x	x	x	x	x
8. A population of chough, an internationally protected bird species.	Sym	KS	KS	KS	KS	KS	KS	KS	KS
9. Important geological exposures: Porth Oer.	Sym	x	x	x	x	x	x	x	x
22. A variety of high-quality shore types which represent the range and variation present on wave-exposed rocky shores in Cardigan Bay.	Sym	x	x	x	x	x	x	x	x

Glannau Aberdaron SSSI continued	Management unit								
	38	39	40	41	42	43	44	45	46
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA									
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH	KH	KH
SPA features									
2. Chough	KS	KS	KS	KS	KS	KS	KS	KS	KS
3. Manx shearwaters	x	x	x	x	x	x	x	x	x
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH	KH	KH
5. Nationally important flowering plants, including the vulnerable spotted rockrose and prostrate broom	x	x	x	x	x	x	x	x	KS
6. Two nationally rare heath lichens: ciliate strap-lichen and golden hair lichen.	x	x	x	x	x	x	Sym	x	Sym
8. A population of chough, an internationally protected bird species.	KS	KS	KS	KS	KS	KS	KS	KS	KS
9. Important geological exposures: Braich y Pwll – Parwyd.	x	x	x	x	x	x	Sym	Sym	Sym

Glannau Aberdaron SSSI continued	Management unit								
	47	48	49	50	51	52	53	54	56
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA									
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH	KH	KH
SPA features									
2. Chough	KS	KS	KS	KS	KS	KS	KS	KS	KS
3. Manx shearwaters	x	x	x	x	x	x	x	x	x
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH	KH	KH
5. Nationally important flowering plants, including the vulnerable spotted rockrose and prostrate broom	x	x	x	x	x	Sym	x	x	x
6. Two nationally rare heath lichens: ciliate strap-lichen and golden hair lichen.	x	x	x	x	x	x	x	x	x
8. A population of chough, an internationally protected bird species.	KS	KS	KS	KS	KS	KS	KS	KS	KS
9. Important geological exposures: Braich y Pwll – Parwyd.	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	x

Glannau Aberdaron SSSI continued	Management unit						
	57	58	59	60	61	62	63
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA	✓	✓	✓	✓	✓	✓	✓
Mynydd Cilan, Twyn y Wylfa ac Ynysoedd Sant Tudwal SPA							
SSSI	✓	✓	✓	✓	✓	✓	✓
NNR							
SAC features							
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH
SPA features							
2. Chough	KS	KS	KS	KS	KS	KS	KS
3. Manx shearwaters	x	x	x	x	x	x	x
SSSI features							
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH
8. A population of chough, an internationally protected bird species.	KS	KS	KS	KS	KS	KS	KS

Ynys Enlli SSSI	Management unit		
	64	65	66
Clogwyni Pen Llyn SAC	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA	✓	✓	✓
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA			
SSSI	✓	✓	✓
NNR	✓	✓	✓
SAC features			
1. Dry heath (Atlantic Sea Cliff)	KH	KH	KH
SPA features			
2. Chough	KS	KS	KS
3. Manx shearwaters	KS	KS	KS
SSSI features			
4. Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH
6. Two nationally rare heath lichens: ciliate strap-lichen and golden hair lichen.	x	x	Sym
7. Assemblages of nationally important lichens, characteristic of different habitats: ● An assemblage of lichens found growing on trees and other plants. ● An assemblage of lichens of natural rock habitats. ● An assemblage of lichens found growing on man-made structures.	Sym	Sym	Sym
8. A population of chough, an internationally protected bird species.	KS	KS	KS
10. Nationally important flowering plants, including the rare rock sea-lavender, <i>Limonium britannicum</i> subsp. <i>pharense</i> , nationally scarce small adder's tongue, <i>Ophioglossum azoricum</i> , western clover, <i>Trifolium occidentale</i> and sharp rush <i>Juncus acutus</i> .	x	x	Sym
11. An assemblage of moss and liverwort species with restricted European distributions, including a number of rare and scarce species.	x	Sym	Sym
12. Breeding population of the seabird Manx shearwater of European importance.	KS	KS	KS

Mynydd Penarfynydd SSSI	Management unit						
	67	68	69	70	71	72	73
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA							
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA							
SSSI	✓	✓	✓	✓	✓	✓	✓
NNR							
SAC features							
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH
SSSI features							
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH
8. A population of chough, an internationally protected bird species.	Sym	Sym	Sym	Sym	Sym	Sym	Sym
9. Important geological exposures: Mynydd Penarfynydd	Sym	Sym	Sym	Sym	Sym	Sym	Sym
23. A variety of high-quality shore types which represent the range and variation present on wave-exposed rocky shores in Cardigan Bay.	Sym	x	x	x	x	x	x

Porth Ceiriad, Porth Neigwl ac Ynysoedd Sant Tudwal SSSI	Management unit								
	74	75	76	77	78	79	80	81	82
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA									
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA									
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH	KH	KH
SPA features									
2. Chough	x	x	x	x	x	x	x	x	x
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH	KH	KH
8. A population of chough, an internationally protected bird species.	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym
9. Important geological exposures: soft coastal cliffs of Porth Ceiriad and Porth Neigwl and geomorphological landforms at Porth Neigwl.	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym
15. A rare invertebrate assemblage associated with soft cliffs.	x	x	x	Sym	Sym	Sym	Sym	Sym	Sym
21. An important area of sand dunes, dune grassland and dune heath.	x	x	x	x	Sym	Sym	Sym	Sym	Sym

Porth Ceiriad, Porth Neigwl ac Ynsoedd Sant Tudwal SSSI	Management unit								
	83	84	85	86	87	88	89	90	91
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA									
Mynydd Cilan, Trwyn y Wylfa ac Ynsoedd Sant Tudwal SPA					✓	✓		✓	✓
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH	KH	KH
SPA features									
2. Chough	x	x	x	x	KS	KS	x	KS	Sym
3. Manx shearwaters	x	x	x	x	x	x	x	x	x
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH	KH	KH
5. Nationally important flowering plants, including the vulnerable spotted rockrose and prostrate broom	x	x	x	x	x	x	x	x	x
6. Two nationally rare heath lichens: ciliate strap-lichen and golden hair lichen.	x	x	x	x	x	x	x	x	x
8. A population of chough, an internationally protected bird species.	Sym	Sym	Sym	Sym	KS	KS	Sym	KS	Sym
9. Important geological exposures: Soft coastal cliffs of Porth Ceiriad and Porth Neigwl and geomorphological landforms at Porth Neigwl.	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym
14. A population of the endangered mason bee <i>Osmia xanthomelana</i>	x	x	x	x	x	x	x	x	KS
15. A rare invertebrate assemblage associated with soft cliffs.	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym
21. An important area of sand dunes, dune grassland and dune heath.	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym	Sym

Porth Ceiriad, Porth Neigwl ac Ynysoedd Sant Tudwal SSSI	Management unit								
	92	93	94	95	96	97	98	99	100
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA									
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA		✓	✓	✓	✓	✓	✓	✓	✓
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH	KH	KH
SPA features									
2. Chough	Sym	KS	KS	KS	KS	KS	KS	KS	Sym
3. Manx shearwaters	x	x	x	x	x	x	x	x	x
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH	KH	KH
8. A population of chough, an internationally protected bird species.	Sym	KS	KS	KS	KS	KS	KS	KS	Sym
19. An important area of M15 <i>Scirpus cespitosus</i> - <i>Erica tetralix</i> and M16 <i>Erica tetralix</i> - <i>Sphagnum compactum</i> wet heath with pools and associated rare plant assemblage comprising bog hair grass <i>Deschampsia setacea</i> , chamomile <i>Chamaemelum nobile</i> , pillwort <i>Pilularia globulifera</i> , three-lobed water- crowfoot <i>Ranunculus tripartitus</i> and pale dog-violet, <i>Viola lactea</i> .	x	x	x	x	x	x	x	x	KH KS

Porth Ceiriad, Porth Neigwl ac Ynysoedd Sant Tudwal SSSI	Management unit								
	101	102	55	103	104	105	106	107	108
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA									
Mynydd Cilan, Twyn y Wylfa ac Ynysoedd Sant Tudwal SPA	✓	✓	✓	✓	✓	✓	✓	✓	✓
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH	KH	KH
SPA features									
2. Chough	Sym	KS	KS	KS	KS	KS	KS	KS	KS
3. Manx shearwaters	x	x	x	x	x	x	x	x	x
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH	KH	KH
8. A population of chough, an internationally protected bird species.	Sym	KS	KS	KS	KS	KS	KS	KS	KS
9. Important geological exposures: Cambrian and Ordovician formations at Trwyn Llech-y-doll	x	Sym	Sym	x	x	x	x	x	x
Trwyn Carreg-y-tir.	x	Sym	x	x	x	x	x	x	x
Porth Ceiriad	x	x	x	x	Sym	Sym	Sym	Sym	Sym
15. A rare invertebrate assemblage associated with soft cliffs.	x	x	x	x	Sym	Sym	Sym	Sym	Sym
16.The grey bush cricket, <i>Platycleis albopunctata</i>	x	x	x	x	Sym	Sym	Sym	Sym	Sym
17. The bog bush cricket, <i>Metrioptera brachyptera</i>	x	x	x	x	Sym	Sym	Sym	Sym	Sym
19. An important area of M15 <i>Scirpus cespitosus</i> - <i>Erica tetralix</i> and M16 <i>Erica tetralix</i> - <i>Sphagnum compactum</i> wet heath with pools and associated rare plant assemblage comprising bog hair grass <i>Deschampsia setacea</i> , chamomile <i>Chamaemelum nobile</i> , pillwort <i>Pilularia globulifera</i> , three-lobed water- crowfoot <i>Ranunculus tripartitus</i> and pale dog-violet, <i>Viola lactea</i> .	KH KS	x	x	x	x	x	x	x	x
20. A cliff vascular plant assemblage including dotted sedge <i>Carex punctata</i> , lanceolate spleenwort <i>Asplenium obovatum</i> , ivy broomrape <i>Orobancha hederarum</i> , <i>Hypericum linarifolium x humifusum</i> , and Southern polypody, <i>Polypodium cambricum</i> .	x	Sym	x	x	x	x	x	x	Sym

Porth Ceiriad, Porth Neigwl ac Ynysoedd Sant Tudwal SSSI	Management unit								
	109	110	111	112	113	114	115	116	117
Clogwyni Pen Llyn SAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glannau Aberdaron and Ynys Enlli SPA									
Mynydd Cilan, Twyn y Wylfa ac Ynysoedd Sant Tudwal SPA	✓	✓	✓	✓	✓	✓	✓	✓	✓
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
NNR									
SAC features									
1.Dry heath (Atlantic Sea Cliff)	KH	KH	KH	KH	KH	KH	KH	KH	KH
SPA features									
2. Chough	KS	Sym	KS	KS	KS	KS	KS	KS	KS
3. Manx shearwaters	x	x	x	x	x	x	x	x	x
SSSI features									
4.Coastal heath and grassland communities, including seacliff slope vegetation.	KH	KH	KH	KH	KH	KH	KH	KH	KH
8. A population of chough, an internationally protected bird species.	KS	Sym	KS	KS	KS	KS	KS	KS	KS
9. Important geological exposures: Cambrian and Ordovician formations at Porth Ceiriad.	Sym	Sym	x	x	x	x	x	x	x
14. A population of the endangered mason bee <i>Osmia xanthomelana</i>	Sym	KS	x	x	x	x	x	x	x
15. A rare invertebrate assemblage associated with soft cliffs.	Sym	Sym	x	x	x	x	x	x	x
16.The grey bush cricket, <i>Platycleis albopunctata</i>	Sym	Sym	x	x	x	x	x	x	x
17. The bog bush cricket, <i>Metrioptera brachyptera</i>	Sym	Sym	x	x	x	x	x	x	x
21. An important area of sand dunes, dune grassland and dune heath.	Sym	Sym	x	x	x	x	x	x	x

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: Conservation Objective for Feature 1:

Vegetated sea cliffs of the Atlantic and Baltic coasts (H7 *Calluna vulgaris*–*Scilla verna* heath, H8d *Calluna vulgaris*–*Ulex galli* heath, *Scilla verna* sub-community, MC8 *Festuca rubra*–*Armeria maritima*, MC9 *Festuca rubra*–*Holcus lanatus* and MC10 *Festuca rubra*–*Plantago spp* maritime grassland communities, coastal grassland and maritime cliff and slope).

Vision for Feature 1:

Coastal heath/Dry and maritime heath/Atlantic Sea Cliff.

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

- Extent of coastal or maritime heath is stable or increasing.
- At least 2 different coastal or maritime heath NVC community types are present and support a range of characteristic plant species.
- Areas of heath form a mosaic with maritime grassland with patches of bare ground – no blanket heath cover.
- Pioneer heath plants are present.
- Grazing occurs annually at a level which prevents a long sward developing but does not suppress heather growth or flowering. A low sward height in grassland habitats and an open, varied structure in heath will be maintained within the cliff top habitats for feeding chough, without causing a decline in the extent or quality of the grassland and heathland.
- The coastal heath will comprise vegetation with *Ulex gallii* present and at least 30% ericoid cover, usually *Calluna vulgaris*, with at least one maritime indicator present such as *Armeria maritima*, *Plantago maritima*, *Plantago coronopus* or *Scilla verna*.
- Healthy populations of the rare vascular plants (including spotted rockrose, *Tuburaria guttata*, prostrate broom *Cytisus scoparius* subsp. *maritimus*, rock sea-lavender *Limonium britannicum* subsp. *pharense*, small adder's tongue, *Ophioglossum azoricum*, western clover, *Trifolium occidentale* and sharp rush *Juncus acutus*) will be present.
- Healthy populations of rare non-vascular plant species, including moss and liverwort species with restricted European distributions, and the soil-living lichens, ciliate strap-lichen *Heterodermia leucomela* and golden hair lichen *Teloschistes flavicans* will be present.
- Species indicative of rank or unmanaged conditions including European gorse, *Ulex europeaus*, bracken *Pteridium aquilinum*, foxglove *Digitalis purpurea*, ragwort species *Senecio sp*, dock *Rumex obtusifolius* and nettle *Urtica dioica* should be largely absent.
- 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* should be largely absent.
- Associated important species such as feeding chough (on the mainland and Ynys Enlli) and nesting Manx shearwater (on Ynys Enlli) are recorded in coastal or maritime heath areas.
- All factors affecting the achievement of these conditions, including grazing intensity and burning, will be under control.

**Performance indicators for Feature 1:
Coastal heath /Dry and maritime heath/ Atlantic Sea Cliff**

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

Performance indicators for feature condition		
Attribute	Attribute rationale and other comments	Specified limits
A1. Extent of the coastal heath (dry and maritime)	Lower limit is based on the component SSSI recorded coastal heath extent (mainland) and 1996 survey of Ynys Enlli. <i>Note: coastal/maritime grassland accounts for a further 237.2ha, and maritime cliff and slope a further 153.3ha</i>	Upper limit: As limited by other habitats, but not set. Lower limit: 208.5ha Recording should initially target those Management Units where dry heath is a Key Habitat (KH). These are all units except Unit 29 (Porth Oer) and Units 100 and 101 where wet heath and associated species are key (see separate Conservation Objective for these two units below).
A2. Condition of the coastal heath (dry and maritime)	At least 75% of coastal heath should be good quality open heath • Dwarf-shrubs should make up between 25-75% cover • <i>Ulex gallii</i> cover should be <50% of the dwarf-shrub cover • A quarter of the heathland vegetation will be in early pioneer stage (0-3 years old) at any time (ie. $\frac{1}{12}$ vegetation managed in each year giving a total of $\frac{1}{4}$ in 3 years. Three year old heather is taken to be less than 5cm high). • There should be less than 5% of unbroken stands of bracken, European gorse and other scrub. • There should be no more than 5 fronds bracken or European gorse >50cm tall within a 2m radius in 75% of the habitat. • There should be less than 5% of the following grasses and weedy species indicative of improvement within a 1m radius over 75% of the site: <i>Agrostis stolonifera</i>, <i>Dactylus glomerata</i>, <i>Lolium perenne</i>, <i>Holcus lanatus</i>, <i>Urtica dioica</i> and <i>Cirsium spp.</i> • In maritime heath one of the	Upper limit: Not required Lower limit: At least 75% of coastal heath should be good quality open heath Recording should initially target those management units where dry heath is a Key Habitat (KH). These are all units except Unit 29 (Porth Oer) and Units 100 and 101 where wet heath and associated species are key (see separate Conservation Objective for these two units below). The specified limits also meet the requirements for maritime grassland, chough and lichen interests.

	following should be present: <i>Scilla verna</i> , <i>Armeria maritime</i> or <i>Plantago maritima</i> .	
A3. Associated significant features	This habitat needs to meet the requirements for other habitats and species associated with coastal or maritime heath, including maritime grassland, chough, lichens (ciliate strap-lichen <i>Heterodermia leucomela</i> and golden hair lichen <i>Teloschistes flavicans</i>) and rare vascular plants (particularly spotted rockrose, <i>Tuberaria guttata</i>).	Upper limit: Same as lower limit. Lower limit: Chough should be recorded using all areas of maritime heath for feeding. Nationally significant lichen species should be present. Healthy populations of all nationally rare vascular plants should be present.
Site-specific habitat definitions		
Open coastal heath	Dwarf-shrub vegetation where $\frac{1}{4}$ of the vegetation has been cut or burnt within the last 3 years and is in early pioneer stage. To maintain open heathland the dwarf-shrub vegetation will be managed by burning or cutting on a 12 year rotation so that $\frac{1}{12}$ of the habitat will be managed each year. On <i>Ulex gallii</i> dominated heath the minimum rotation recommended is 12 years to help break <i>Ulex</i> dominance. On sites with no particular species interest a longer rotation is recommended, however where chough are present there is a need to maintain open vegetation so the minimum 12 year rotation is considered most appropriate. Rapid <i>Ulex</i> re-growth will be controlled by appropriate grazing.	

Performance indicators for factors affecting the feature		
Factor	Factor rationale and other comments	Operational Limits
F1.Grazing	Coastal heath and grasslands require grazing to maintain a good open structure and to prevent the heath becoming dominated by scrub, bracken and gorse. Ideally, cattle and ponies are preferable to sheep as they are less-selective grazers. Graziers must be encouraged to appropriately graze the blocks of common in this site: Mynydd Anelog, Mynydd Bychestyn and Mynydd Cilan. The number of active graziers has been falling in recent years. At present, only two graziers are associated with Mynydd Bychestyn, three graziers are associated with Mynydd Cilan, and the exact graziers of Mynydd Anelog are unknown.	Upper limit: Grazing levels will not lead to excessive poaching damage or reduction of dwarf-shrub cover to below 25%. Lower limit: The site will be lightly grazed by a mixture of stock during the spring and summer.
F2 Burning	Burning is likely to favour bracken and western gorse, so this should not be used as a management tool where these species are likely to invade. Cutting may be more appropriate in these areas. Some cutting or burning management is necessary to maintain a diverse age structure. This should occur as long-term small-patch burning on a 12-year rotation. Burning should not occur unless followed up by grazing.	Upper limit: To maintain open heathland the dwarf-shrub vegetation will be managed by burning or cutting on a 12 year rotation so that $\frac{1}{12}$ of the habitat will be managed each year. Lower limit: A quarter of the heathland vegetation will be in early pioneer stage (0-3 years old) at any time.
F3 Bracken	Bracken does dominate large areas of the cliffs and has spread up into the heath in places. This has happened due to decreased grazing pressure and a shift away from cattle grazing. Heavy stock control bracken by damaging the rhizomes and crushing new growth.	Upper limit: There should be no more than 5 fronds bracken within a 2m radius in 75% of the habitat. Lower limit: There should no more than 5% of unbroken stands of bracken.

**Vision for component of Feature 1:
(Wet heath and plant assemblage0:**

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

- Wet heath communities and pools will occupy 95% (12ha) of Management Units 100 and 101 as mapped in 2003.
- The following plants will be common in the wet heath: cross-leaved heath *Erica tetralix*, purple moor-grass *Molinia caerulea*, deer grass, *Scirpus cespitosus* carnation sedge *Carex panicea*, Devil's bit scabious *Succisa pratensis* and tormentil *Potentilla erecta*.
- Healthy populations of the rare species associated with the wet heath and pool communities, comprising bog hair grass *Deschampsia setacea*, chamomile *Chamaemelum nobile*, pillwort *Pilularia*

globulifera, three-lobed water- crowfoot *Ranunculus tripartitus* and pale dog-violet, *Viola lactea*, will be present.

- Rushes and species indicative of agricultural modification, such as perennial rye grass *Lolium perenne* and white clover *Trifolium repens* will be largely absent from the wet heath.
- Scrub species such as willow *Salix* and birch *Betula* will also be largely absent from the wet heath.
- All factors affecting the achievement of these conditions are under control.

Performance indicators for component of Feature 1: (Wet heath and plant assemblage)

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

Performance indicators for feature condition		
Attribute	Attribute rationale and other comments	Specified limits
A1. Extent of wet heath.	Lower limit is based on 2003 mapped extent.	<i>Upper limit:</i> As limited by other habitats. <i>Lower limit:</i> 95% (12ha) of Management Units 100 and 101 will support wet heath and pool communities
A2. Quality of the wet heath communities.	• Dwarf-shrubs should make up between 25-75% cover • Healthy populations of <i>Deschampsia setacea</i>, which is identified as the Key Species (KS) for the wet heath habitat, will be present. • Other rare species associated with the wet heath will also be present if the KS is in favourable condition.	<i>Upper limit:</i> Not required <i>Lower limit:</i> • <i>Deschampsia setacea</i> populations will be present in at least 3 discrete locations (ie separated by at least 100m). • Two of the three populations must have a minimum of 100 flowering spikes
A3. Quality of pool communities	• Healthy populations of <i>Pilularia globulifera</i> which is identified as the Key Species (KS) for the pools habitat, will be present. • Other rare species associated with the wet heath will also be present if the KS is in favourable condition • No non-native species will be present in the pools	<i>Upper limit:</i> Not required <i>Lower limit:</i> • <i>Pilularia globulifera</i> will be found in a minimum of 5 localities (ditches/pools) separated by at least 100m • <i>Pilularia</i> cover/abundance at these locations will be >2m squared, and will be present within a 2m radius within a 2 x 2m grid
Performance indicators for factors affecting the feature		
Factor	Factor rationale and other comments	Operational Limits
F1: Grazing	The ponies do tend to graze open pool areas, but there need to be more heavy stock grazing in this habitat, since disturbance creates opportunities for colonisation of many of the desirable species.	<i>Upper limit:</i> Grazing levels will not lead to a reduction of dwarf-shrub cover to below 25%. <i>Lower limit:</i> The habitat will be grazed by heavy stock during the

		spring and summer, with sufficient poaching by stock to create colonisation opportunities.
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F2: Hydrological regime	The wet heath and pools and their species composition are maintained by a high water table.	No upper limit set. Lower limit: Accepting seasonal variations dependent on the weather, there should be no reduction in the quantity or quality of the water that maintains these communities.
F3: Succession	The open nature of the pools needs to be maintained. These are generally quite shallow and are therefore prone to siltation and infilling. If grazing levels are insufficient to prevent successional change, restoration management will be carried out to target those pools which have become in-filled with silt and vegetation and a phased programme of pool clearance will be implemented.	No upper limit set. Lower limit: A minimum of 5 pools will be maintained in an open condition where less than 25% of the pool area is encroached by tall marshy vegetation such as soft rush.

4.2: Conservation Objective for Feature 2 (a and b)

(Both Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA (a) and Glannau Aberdaron and Ynys Enlli SPA (b)).

Internationally important population (1% or more of the Great Britain population) of breeding and non-breeding season chough *Pyrhocorax pyrrhocorax*.

Vision and Performance Indicators for Feature 2 (a and b): Chough.

- a) Refer to Section 4.1 in the Core Management Plan for Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA.
- b) Refer to Section 4.1 in the Core Management Plan for Glannau Aberdaron and Ynys Enlli SPA.

4.3: Conservation Objective for Feature Conservation Objectives for Feature 3: (Glannau Aberdaron and Ynys Enlli SPA) Internationally important population (1% or more of the Great Britain population) of breeding Manx shearwaters *Puffinus puffinus*

Vision and Performance Indicators for Feature 3: Manx shearwater.

Refer to Section 4.2 in the Core Management Plan for Glannau Aberdaron and Ynys Enlli SPA.

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 (H7 *Calluna vulgaris* – *Scilla verna* heath, H8d *Calluna vulgaris*-*Ulex galli* heath, *Scilla verna* sub-community, MC8 *Festuca rubra* – *Armeria maritima*, MC9 *Festuca rubra* – *Holcus lanatus* and MC10 *Festuca rubra* – *Plantago spp* maritime grassland communities, coastal grassland and maritime cliff and slope).

**Conservation Status of Feature 1:
[Coastal heath /Dry and maritime heath/Atlantic Sea Cliff].**

The overall condition at January 2008 is **Unfavourable, Recovering**.

The condition of the feature was assessed by using sample plots placed in key areas of maritime grassland and maritime or coastal heath (SAC Monitoring Report 09/01/04). Overall, the vegetated sea cliffs were recorded to be in an unfavourable condition, although separate monitoring of the coastal or maritime heath on Ynys Enlli in 2003 found that it was Favourable, Recovering.

On Ynys Enlli, areas of coastal heath that were historically overgrazed have recovered considerably since the 1980's and early 90's. In all grazing compartments heather cover is at an acceptable level and pioneer and mature plants are present along with characteristic species. There is no immediate risk of loss or sudden decline. Choughs are known to feed in all areas and associated soil lichens and notable vascular plants are present in healthy populations. All compartments are grazed annually and are not at risk of agricultural improvement or other development. Bracken, gorse and other negative species are within specified limits. Erosion is restricted to a few narrow paths. However, some areas are currently under-grazed where sward height exceeds specified limits. Future adjustments to the grazing regime should address this issue; hence the condition of coastal or maritime heath is considered 'favourable recovering'.

(Note caution regarding the definition of dry heath. This is not officially a feature of Clogwyni Pen Llŷn SAC. Considering that dry heath makes up a large percentage of this site and it is a notified feature of the component SSSIs it makes little sense that it has not been designated as a SAC feature, and it is intended to rectify this situation).

(The populations of rare vascular plants on the mainland, particularly spotted rockrose, *Tuberaria guttata* and prostrate broom *Cytisus scoparius* subsp. *maritimus*, and the mainland soil-lichens, ciliate strap-lichen *Heterodermia leucomela* and golden hair lichen *Teloschistes flavicans*, are all considered to be Unfavourable, Declining, although these lichens are Favourable Maintained on Enlli.)

**Management Requirements of Feature 1:
(Coastal heath /Dry and maritime heath/Atlantic Sea Cliff).**

Rare vascular and non-vascular plants:

Mynydd Mawr is an extremely important site for spotted rockrose *Tuberaria guttata*, which is found on the summit and slopes of Mynydd y Gwyddal. This is the only site for the species on mainland Wales. The

population has been closely monitored and shows fluctuations in size and extent, although the ephemeral life cycle of this species means that such counts may not give a complete picture. The plants are much smaller and less luxuriant than plants at a comparable location on Anglesey. Sheep grazing is thought to reduce the vigour of the population and is therefore threatening its long-term survival. There are proposals to reduce sheep grazing in favour of ponies, which should help halt the decline of this species in particular. Prostrate broom *Cytisus scoparius* subsp. *maritimus* occurs on the cliff above the important geological exposure at Parwyd. The cliff top is fenced off from the heavily grazed improved fields behind, although the fence doesn't quite meet the cliff edge and the sheep can get around the fence at the edges and obviously do graze occasionally. A 1993 survey found plants occurring on both the actual cliff and on the cliff top fenced off section. Growth on the cliff was recorded as more luxuriant than the stunted, grazed plants on the cliff top, and repair of the fencing would prevent grazing and allow further recovery of this species.

The two rare soil lichen species, golden hair lichen *Teloschistes flavicans* and ciliate strap lichen *Heterodermia leucomela*, are present on the Mynydd Mawr. The former is found on rocky outcrops and short turf the latter is found primarily at the heathland/coastal grassland transition. Again, they are both less luxuriant than at their Ynys Enlli locations. Both species of lichen and the spotted rockrose are very sensitive to burning and every effort should be made to prevent burning where they occur.

The assemblage of vascular plants supported by this habitat can be considered to be in favourable condition, as they occur on the exposed cliffs and are not impacted by the grazing management.

The assemblage of vascular plants on Ynys Enlli associated with the maritime grassland and therophyte grassland including the rock sea-lavender, *Limonium britannicum* subsp. *pharense*, nationally scarce small adder's tongue, *Ophioglossum azoricum*, western clover, *Trifolium occidentale* and sharp rush *Juncus acutus* can also be considered to be in favourable condition.

Grazing:

The 2004 assessment of condition was based on the fact that habitat was under-grazed in parts and overgrazed in parts. Some good quality western gorse heath is found on the National Trust land but in places this has become invaded by bracken due to undergrazing. Bracken encroachment is also a serious problem in some sections of the site. There has been a more active management of sections of the heath since this assessment, including bracken control and rotational cutting of some areas, hence the current qualifier that it is recovering. The NT has been active in controlling bracken at its holding at Muriau, and work has been carried out recently at Pen y Cil and on Ynys Enlli.

In 2005, a Management Schedule was drawn up for six sections of the site: Mynydd Penarfynydd, Mynydd Cilan, Mynydd Anelog, Mynydd Mawr, Mynydd Bychestyn and Pen y Cil, involving partners including NT, RSPB, Cyngor Gwynedd and CYMAD. Some of the work was implemented under the Cadw'r Lliw yn Llŷn project, and further work will be implemented as part of the Llŷn Heaths Project which has just gained Heritage lottery funding. Sympathetic grazing regimes with heavy stock, the establishment of cutting and burning of heath blocks on long rotation, and control of gorse and bracken form the backbone of these plans.

In the long-term favourable condition of the vegetation will only be achieved with appropriate grazing. Grazing should remove excess grass growth preventing the build-up of litter and a dense thatch. Grazing should also remove young western gorse and a small proportion of ericoid (heather) growth. Heavy grazing in the autumn can result in excessive removal of ericoids resulting in their gradual replacement by western gorse. Grazing is best focused early in the season when grasses and young gorse are most palatable. Heavy livestock such as cattle or ponies are better than sheep at controlling both gorse and bracken regeneration.

Burning/Cutting

Management will promote the development of more diverse heathland vegetation with an increase in the cover and abundance of ericoids (bell heather *Erica cinerea* and common heather *Calluna vulgaris*) and a concurrent decrease in the dominance of western gorse *Ulex gallii*. Structural diversity will be improved by rotational management to provide areas of short open heath with all the intermediate stages through to tall mature heath. A rotation of 12 years or more is recommended to break the dominance of western gorse. Burning tends to encourage the spread and dominance of western gorse and bracken therefore burning of

heathland will be discouraged during the restoration phase but may be reintroduced at a later date for maintenance management. Restoration management will be carried out by patch cutting with patches measuring approximately 0.5-1ha.

Conservation Status and Management Requirements of an important area of Wet heath M15 *Scirpus cespitosus*- *Erica tetralix* and M16 *Erica tetralix*-*Sphagnum compactum* wet heath with pools and associated rare plant assemblage comprising bog hair grass *Deschampsia setacea*, chamomile *Chamaemelum nobile*, pillwort *Pilularia globulifera*, three-lobed water- crowfoot *Ranunculus tripartitus* and pale dog-violet, *Viola lactea*

(Part of Feature 1: Vegetated sea cliffs of the Atlantic and Baltic coasts (H7 *Calluna vulgaris* –*Scilla verna* heath, H8d *Calluna vulgaris*-*Ulex galli* heath, *Scilla verna* sub-community, MC8 *Festuca rubra* – *Armeria maritima*, MC9 *Festuca rubra* – *Holcus lanatus* and MC10 *Festuca rubra* – *Plantago* spp maritime grassland communities, coastal grassland and maritime cliff and slope)).

Conservation Status of the Wet heath and associated rare plant assemblage:

The condition of the wet heath and plant assemblage at January 2008 is Favourable, Unclassified.

Management Requirements of the Wet heath and associated rare plant assemblage:

Mynydd Cilan is already managed by a mixed grazing regime of ponies, sheep and occasional cattle, and although the vegetation would benefit from a reduction in sheep grazing particularly at the end of the summer/autumn and an increase in cattle, the ponies tend to concentrate their grazing in the area around the pools where they do a good job in maintaining the wet heath and associated vegetation. Much of the botanical interest is found in and around the pools. *Deschampsia setacea* is identified as the key species here. Grazing with heavy stock causes local poaching which provides the plants that specialise in this habitat with new opportunities for colonisation. Some plants prefer disturbed damp areas such as the poached or eroded tracks, and *Ranunculus tripartitus* is identified as the key species in this respect. Again, these species would benefit from grazing by heavy stock and more disturbance around the pools.

The open nature of the pools need to be maintained. They are generally quite shallow and are therefore prone to siltation and infilling. If grazing levels are insufficient to prevent successional change, restoration management will be carried out to target those pools which have become in-filled with silt and vegetation and a phased programme of pool clearance will be implemented. Part of a programme of maintenance occurred in September 2007.

5.2 Conservation Status and Management Requirements of Feature 2 (a and b):

(Both Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA (a) and Glannau Aberdaron and Ynys Enlli SPA (b)).

Internationally important population (1% or more of the Great Britain population) of breeding and non-breeding season chough *Pyrhocorax pyrrhocorax*.

Conservation Status of Feature 2 (a and b): Chough.

The condition of the chough population at January 2008 is **Favourable, Maintained.**

The past two or three decades have seen the UK chough population as a whole stabilising while populations around the Welsh coast appear to be making a recovery in numbers. At a local level the breeding population has been stable over the last 10 years and there is no evidence that the area included within the SPA boundary as a whole has ever supported significantly higher numbers of breeding birds.

However, it is important to note that recent grazing regimes on Ynys Enlli have led to decline in some areas of chough feeding habitat and that non-breeding summer flocks have declined in recent years. The non-breeding flock may have been lost to nearby areas on the mainland where chough feeding habitat may have increased in quality and extent. It cannot be assumed that breeding and non-breeding populations on Ynys Enlli will be secure in the medium or long term. Suitable alterations in habitat management,

particularly grazing regimes have the potential to improve the quality and extent of chough feeding areas on the island and reverse the recent decline in some areas.

a) Refer to Section 5.1 in the Core Management Plan for Mynydd Cilan, Trwyn y Wylfa ac Ynysoddedd Sant Tudwal SPA for specific discussion on the Conservation Status and Management Requirements for chough

b) Refer to Section 5.1 in the Core Management Plan for Glannau Aberdaron and Ynys Enlli SPA for specific discussion on the Conservation Status and Management Requirements for chough

5.3 Conservation Status and Management Requirements of Feature 3: Internationally important population (1% or more of the Great Britain population) of breeding Manx shearwaters *Puffinus puffinus*.

Conservation Status of Feature 3: Manx shearwaters.

The condition of the Manx shearwater population at January 2008 is **Favourable, Maintained.**

Data is not currently available for all the performance indicators listed, however the increase in population figures over a long period combined with sustained reproductive success indicates that the feature can be considered 'favourable maintained'.

Refer to Section 5.2 in the Core Management Plan for Glannau Aberdaron and Ynys Enlli SPA for specific discussion on the Conservation Status and Management Requirements for Manx shearwaters

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?
087	001099	Towyn (1)	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach. Needs pony or cattle grazing.	Yes
088	001100	Ty'n Don (1)	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach. Needs pony or cattle grazing.	Yes
090	001101	Ty'n Don (2)	This field is open to Unit 91, where grazing levels have been maintaining a good flower-rich sward, with abundant bird's foot trefoil, which is crucial for the survival of the mason bee. Recent concerns however that grazing levels have been increased, with less flowers available.	Yes
095	001104	Cilan Fawr (2)	Part of the Carreg y Haul Management Agreement. No outstanding issues	No
093	001105	Cilan Fawr (1)	Carreg Haul. Land within a current Management Agreement. Bracken was controlled and pony grazing introduced. No issues outstanding.	No
096	001106	Castell Cottage	Small outlier unit. No known issues.	No
097	001107	Castell Bach	Small unit associated with properties. No known management issues.	No
094	001108	National Trust (1)	National Trust land. Unit has improved in recent years, and although condition varies, overall, it is very good. The whole of Mynydd Cilan grazed as one unit with ponies and sheep. Ideally, there should be more pony grazing, and control of bracken.	Yes
099	001110	Cilan Fawr (4)	The land in this unit is part of a larger management agreement primarily focussed on chough - particularly cloddiau restoration and pony grazing. This area of heath is pony grazed, with occasion very small patch burning. The condition of the heath is quite good, although heavier pony grazing the whole site would be desirable in the long-term. No major issues	No
098	001111	Cilan Fawr (3)	Coastal heath pony grazed and in quite good condition - no major issues. More pony grazing would be desirable long-term.	Yes
117	001112	Pen y Mynydd	Area of heath managed by cutting on rotation and grazing. Good management. No issues.	No
102	001113	Common (2)	Common land. Condition of the heath and maritime grassland variable over this large open unit, and mostly quite good. Some areas need bracken control, but over all it would benefit from grazing with more heavy stock. Graziers - three active - have sheep, and ponies also graze from adjoining open units.	Yes
055	001116	Penllan (1)	No known issues.	No

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
103	001117	National Trust (2)	Traditionally a stronghold for chough, now becoming a bit scrubby and needs clearance in places and paths opening up to allow stock grazing. RSPB may be willing to contribute funding to allow NT to do this work?	Yes
104	001119	Cae Glas (1)	Undergrazing also an issue here? Scrub invasion? Needs investigation.	Yes
105	001122	Bwlch y Clawdd (1)	Undergrazing also an issue here? Scrub invasion? Needs investigation.	Yes
106	001123	Bodlondeb (1)	Undergrazing also an issue here? Scrub invasion? Needs investigation.	Yes
107	001125	Ceiriad	Undergrazing also an issue here? Scrub invasion? Needs investigation.	Yes
108	001127	Nant y Big (1)	Undergrazing also an issue here? Scrub invasion? Needs investigation.	Yes
109	001130	National Trust (3)	NT has records that the earth banks supported the mason bee 1996. Not recorded recently. Unmanaged - dense heath with rank gorse and bracken. Needs management - cut paths to allow stock to graze.	Yes
110	001131	Cim Farm (1)	Unit separated due to importance of mason bee as a priority species. Previous enforcement work here due to damage to perched dunes by owner during rabbit control. Regular monitoring by specialists from Liverpool University on contract to HQ. Condition favourable at present.	No
113	001133	Penrhyn Bach	Small unit includes land that has been contaminated by mine spoil from previous workings. Not core to the features, although sparse vegetation may mean feeding opportunities for chough. Management needs unknown.	Yes
112	001134	Cornish Row	Includes land that has been contaminated by mine spoil from previous workings. Some areas of heath? Parts not core to the features, although sparse vegetation may mean feeding opportunities for chough. Management needs not known.	Yes
115	001135	St Tudwals East	Management issues unknown.	Yes
114	001136	St Tudwals West	Management issues unknown.	Yes
091	001137	Ty'n Don (4)	Grazing levels have been maintaining a good flower-rich sward in this field, with abundant bird's foot trefoil which is crucial for the survival of the mason bee. In recent years, however, there have been concerns that the grazing levels have increased to the detriment of the flowering species, and the knock-on effects for the bees.	Yes
101	001138	Common (1)	This unit was identified as an area important for the wet heath communities and pools that support an assemblage of rare plants, and management should be tailored for these. Recent management to open up a proportion of the pools and provide colonisation opportunities was very successful. Grazing levels are about right, as the ponies tend to congregate about the pools. No outstanding issues.	No
030	001684	Unit 2a Porth Oer	Overgrazing with sheep an issue here - needs to be lighter, possibly the timing adjusted to allow for heavier grazing in the spring. Ideally heavier stock is needed - cattle or ponies. The coastal path is a constraint for cattle grazing - long-term aim to open up the coastal corridor a field back to allow freer stock movement or incorporate 'break-outs' along the path.	Yes

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
031	001685	Unit 2b Porth Oer	Overgrazing with sheep an issue here - needs to be lighter, possibly the timing adjusted to allow for heavier grazing in the spring. Ideally heavier stock is needed - cattle or ponies. The coastal path is a constraint for cattle grazing - long-term aim to open up the coastal corridor a field back to allow freer stock movement or incorporate 'break-outs' along the path.	Yes
032	001686	Unit 3a Carreg Farm	Overgrazing with sheep an issue here - needs to be lighter, possibly the timing adjusted to allow for heavier grazing in the spring. Ideally heavier stock is needed - cattle or ponies. The coastal path is a constraint for cattle grazing - long-term aim to open up the coastal corridor a field back to allow freer stock movement or incorporate 'break-outs' along the path.	Yes
033	001687	Unit 3b Carreg Farm	Undergrazing is possibly a problem here - need to negotiate increased grazing levels and appropriate stock management - again heavier stock would be desirable.	Yes
034	001689	Unit 3c Carreg Farm	Units 34 and 35 run together. Land tends to be grazed in winter, with nothing in spring. Emphasis of grazing pattern needs to change to spring grazing. NT tenant here owns unit 35, but considering selling to NT.	Yes
035	001690	Unit 4a Mynydd Anelog	Units 34 and 35 run together. Land tends to be grazed in winter, with nothing in spring. Emphasis of grazing pattern needs to change to spring grazing. Previous issues with illegal spreading of slurry on heath and cutting. Shetland ponies recently introduced.	Yes
036	001701	Unit 4b Mynydd Anelog	Common land, open to Unit 37. However ownership of the common unclear, and grazing levels are unmanaged. Heath used to be overgrazed, now probably undergrazed, but good quality.	Yes
037	001702	Unit 4c Mynydd Anelog	Common land belonging to the National Trust. Used to be heavily overgrazed, but stocking levels have dramatically dropped in recent years, and now undergrazed. Only active grazier is at Anelog Farm. The common is open to Unit 36. Bracken control is needed. Heavy stock grazing, ideally ponies, would be desirable here.	Yes
038	001703	Unit 4d Mynydd Anelog	Very small unit. Management unknown.	Yes
039	001704	Unit 4e Mynydd Anelog	Very small unit. Management unknown.	Yes
040	001707	Unit 5a Porth Llanllawen	Historically deliberately heavily grazed for chough. Now managed along with land under S15 Management Agreement and heath in good condition. Gorse control under the agreement, and bracken controlled 2007 by NT.	Yes
041	001711	Unit 5b Porth Llanllawen	Historically deliberately heavily grazed for chough. Now managed along with land under S15 Management Agreement and heath in good condition. Gorse control under the agreement, and bracken controlled 2007 by NT.	Yes
042	001713	Unit 6 Llanllawen Fawr	Historically deliberately heavily grazed for chough. Now managed along with land under S15 Management Agreement and heath in good condition. Gorse control under the agreement, and bracken controlled 2007 by NT.	Yes
043	001714	Unit 7a Braich y Pwll	Historically deliberately heavily grazed for chough. Now managed along with land under S15 Management Agreement and heath in good condition. Gorse control under the agreement, and bracken controlled 2007 by NT.	Yes

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
044	001716	Unit 7b Braich y Pwll	Generally overgrazed, with most serious effects in Unit 46, which is open to adjoining units. <i>Tuberaria guttata</i> occurs here at its only mainland site and is suffering from the effects of sheep grazing. To protect this species, the grazing needs to be modified to lighter pony grazing, with possibly a complete break from grazing for a period to allow the population to recover. Impacts also on soil lichens <i>Heterodermia</i> and <i>Teloschistes</i> , which also occur here. Burning at this site inappropriate at this stage due to areas over-burned in the past, and cutting favoured instead, along with bracken and gorse control. RSPB involvement necessary due to importance of area for chough, but the mosaic habitat that should develop will support both heath and associated vascular and non-vascular species and chough. TG agreement being negotiated.	Yes
045	001721	Unit 7c Braich y Pwll	Generally overgrazed, with most serious effects in Unit 46, which is open to adjoining units. <i>Tuberaria guttata</i> occurs here at its only mainland site and is suffering from the effects of sheep grazing. To protect this species, the grazing needs to be modified to lighter pony grazing, with possibly a complete break from grazing for a period to allow the population to recover. Impacts also on soil lichens <i>Heterodermia</i> and <i>Teloschistes</i> which also occur here. Burning at this site inappropriate at this stage due to areas over-burned in the past, and cutting favoured instead, along with bracken and gorse control. RSPB involvement necessary due to importance of area for chough, but the mosaic habitat that should develop will support both heath and associated vascular and non-vascular species and chough. TG agreement being negotiated.	Yes
047	001722	Unit 8 Porth Felen	Possible issues with grazing type and timing. Narrow strip above cliffs with improved pasture behind.	Yes
048	001724	Unit 9	This section has become quite rank in recent years, and the timing of grazing is probably the problem. NT tenancy renewed recently with conservation clause for variation of grazing regime as necessary. Stocking will be 50 sheep in Spring then remove half for the rest of the grazing season. Cattle will be run in the field adjoining with access to the coastal strip. Gorse control by NT.	Yes
049	001728	Unit 10a Mynydd Bychestyn	Common dominated by western gorse with very little heather. Currently sheep grazed autumn/winter, but stock absent in spring, so grazing regime issues need to be resolved. Studies have revealed an absence of heather seed in the soil seed bank, almost certainly due to past frequent over-burning. Seedbank needs to be restored artificially, by cutting patches and putting on heather brash harvested by brush-cutter from adjoining land in Sept/Oct, or burning heather brash on scarified land to stimulate seed. Subsequently, cattle grazing could be introduced, through management agreement with CCW.	Yes

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
050	001729	Unit 10b Mynydd Bychestyn	Common dominated by western gorse with very little heather. Currently sheep grazed autumn/winter, but stock absent in spring, so grazing regime issues need to be resolved. Studies have revealed an absence of heather seed in the soil seed bank, almost certainly due to past frequent over-burning. Seedbank needs to be restored artificially, by cutting patches and putting on heather brash harvested by brush-cutter from adjoining land in Sept/Oct, or burning heather brash on scarified land to stimulate seed. Subsequently, cattle grazing could be introduced, through management agreement with CCW.	Yes
051	001730	Unit 10c Mynydd Bychestyn	Common dominated by western gorse with very little heather. Currently sheep grazed autumn/winter, but stock absent in spring, so grazing regime issues need to be resolved. Studies have revealed an absence of heather seed in the soil seed bank, almost certainly due to past frequent over-burning. Seedbank needs to be restored artificially, by cutting patches and putting on heather brash harvested by brush-cutter from adjoining land in Sept/Oct, or burning heather brash on scarified land to stimulate seed. Subsequently, cattle grazing could be introduced, through management agreement with CCW.	Yes
052	001732	Unit 11 Parwyd	Prostrate broom occurs here on the cliffs of Parwyd. Fenced off section at the top of the cliff is not fully stockproof, allowing some sheep access, and the broom may be being constrained to the inaccessible cliff because of this. Improved land above heavily grazed, but on thin soils and very exposed to salt-laden wind so potential for restoration/expansion of maritime grassland area. Possible management agreement or Llyn Partnership project.	Yes
053	001734	Unit 12a Pen y Cil	Moderate to heavy sheep grazing, with areas that are grassy with agricultural weeds due to previous stock feeding. Some nice areas of maritime grassland. Heavier stock would help break up the land and create opportunities for heath colonisation/expansion. Burning plan needs to be developed - burning on the coastal slopes with dense gorse has been consented previously to allow stock access.	Yes
054	001736	Unit 12b Pen y Cil	Moderate to heavy sheep grazing, with areas that are grassy with agricultural weeds due to previous stock feeding. Some nice areas of maritime grassland. Heavier stock would help break up the land and create opportunities for heath colonisation/expansion. Burning plan needs to be developed - burning on the coastal slopes with dense gorse has been consented previously to allow stock access.	Yes
056	001738	Unit 12c Pen y Cil	Small unit. No known issues.	No
057	001742	Unit 13a Porth y Pistyll	No known issues.	No
058	001743	Unit 13b Porth y Pistyll	No known issues.	No
060	001745	Unit 15 Cwrt (inc Porth Meudwy)	Large unit owned by NT and tenanted by Cwrt includes coast from Porth y Pistyll to Porth Simdde. Issues with accessibility to stock, leading to areas dominated by bracken and scrub. Water supply also an issue if grazing to be encouraged.	Yes

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
063	001748	Unit 16. Porth Simdde	No known issues. Scrub?	No
064	001749	Unit 17a Ynys Enlli	Interior land on Ynys Enlli; mainly agricultural land with the SAC features mainly confined to the coastal areas and Mountain in Unit 66. Land covered by Management Agreements with BITL, BBFO and new agreement being negotiated with RSPB and sub-tenant with project proposals identified annually. Lowland gorse burning on rotation, annual bracken cutting, drainage and boundary management issues in this area.	Yes
065	001750	Unit 17b Ynys Enlli	Lighthouse compound. Current issues relate to proposals for wind turbines and solar panels.	Yes
029	002054	Unit 1a Intertidal	Porth Oer. Not included in Pellyn a'r Sarnau SAC, but part of Clogwyni Penllyn SAC and Glannau Aberdaron SPA, underpinned by Glannau Aberdaron SSSI.	Yes
046	002055	Unit 7d Braich y Pwll	Generally overgrazed, with most serious effects in Unit 46, which is open to adjoining units. <i>Tuberaria guttata</i> occurs here at its only mainland site and is suffering from the effects of sheep grazing. To protect this species, the grazing needs to be modified to lighter pony grazing, with possibly a complete break from grazing for a period to allow the population to recover. Impacts also on soil lichens <i>Heterodermia</i> and <i>Teloschistes</i> , which also occur here. Burning at this site inappropriate at this stage due to areas over-burned in the past, and cutting favoured instead, along with bracken and gorse control. RSPB involvement necessary due to importance of area for chough, but the mosaic habitat that should develop will support both heath and associated vascular and non-vascular species and chough. TG agreement being negotiated.	Yes
066	002056	Unit 17c Ynys Enlli	Unit includes coastal land and mountain land that supports the majority of the SAC features. A management agreement exists with BBFO, BITL and a new agreement is being negotiated with RSPB as BITL tenant, and their sub-tenant. Management under this agreement already being implemented, including cattle grazing of the mountain and gorse burning on seven year rotation. The overall condition of the site features are favourable or unfavourable improving, and this will be maintained by this management.	Yes
001	002062	Gallt y Bwlch	The site is largely self-maintaining. Some concern about goat impacts, but monitoring has not shown this to be significant.	Yes
002	002064	Porth Pistyll (a)	Maritime and mesotrophic grassland with scrub, largely unmanaged.	Yes
003	002066	Porth Pistyll (b)	Scrub encroachment due to lack of grazing.	Yes
004	002068	Porth Pistyll (c)	Scrub and rank mesotrophic grassland, largely unmanaged.	Yes
005	002069	Porth Pistyll (d)	Unmanaged scrub.	Yes
006	002070	Porth Pistyll (e)	Unmanaged scrub and mesotrophic grassland.	Yes
007	002071	Penrhyn Bodeilias	Scrub, mesotrophic and maritime grassland, largely unmanaged.	Yes
008	002072	Porth Bodeilias	Maritime and mesotrophic grassland, largely unmanaged.	Yes
009	002073	Wern (a)	Maritime and mesotrophic grassland and scrub, largely unmanaged.	Yes

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
010	002074	Wern (b)	Natural vegetation developed with little or no grazing. Maritime grassland and scrub.	Yes
011	002075	Porth Nefyn (a)	Maritime grassland and scrub, largely unmanaged.	Yes
012	002076	Caravan Park	Unmanaged scrub	Yes
013	002077	Porth Nefyn (b)	Scrub and mesotrophic grassland, largely unmanaged	Yes
014	002078	Porth Nefyn (c)	Scrub and rank mesotrophic grassland and some maritime grassland, largely unmanaged	Yes
015	002079	Penrhyn Nefyn (a)	Scrub and bracken, unmanaged.	Yes
016	002080	Penrhyn Nefyn (b)	Maritime grassland and scrub, unmanaged	Yes
017	002081	Penrhyn Nefyn (c)	Maritime grassland and scrub, unmanaged	Yes
018	002082	Penrhyn Nefyn (d)	Scrub and bracken, unmanaged	Yes
019	002083	Cerrig Bwlch Glas (a)	Maritime grassland and scrub, largely unmanaged	Yes
020	002084	Cerrig Bwlch Glas (b)	Maritime and mesotrophic grassland with <i>Tussilago farfara</i> , largely unmanaged.	Yes
021	002085	Cerrig Bwlch Glas (c)	Mesotrophic grassland and scrub, largely unmanaged.	Yes
022	002086	Cerrig Gleision (a)	Scrub and willow herb, largely unmanaged	Yes
023	002087	Cerrig Gleision (b)	Unmanaged scrub	Yes
024	002088	Cerrig Gleision (c)	Unmanaged scrub	Yes
025	002089	Porthdinllaen (a)	Scrub with maritime and mesotrophic grassland and areas of foredune and semi-fixed dune, largely unmanaged.	Yes
026	002090	Porthdinllaen (b)	Unmanaged scrub	Yes
027	002091	Porthdinllaen (c)	Mixture of maritime and mesotrophic grassland with scrub and small areas of sand-dune communities, largely unmanaged.	Yes
028	002092	Golf Course	Nice areas of maritime heathland and grassland along the coast, artificially truncated inland where it meets the golf course. Marginal areas are mown by the golf club with consent; the remainder is unmanaged. Area of unusual perched saltmarsh to the western end of this unit.	Yes
067	002093	Mynydd Penarfynydd Intertidal	Intertidal land. No known issues.	No
068	002094	Mynydd Penarfynydd (a)	Previously heavily overgrazed, stock was withdrawn under management agreement to allow habitat recovery, and then reintroduced including ponies with an emphasis on heavier spring grazing to reduce grasses and benefit heath. Current management of this unit is delivering good habitat conditions and supporting good feeding habitat for cough.	No

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
069	002095	Mynydd Penarfynydd (b)	Previously heavily overgrazed, stock was withdrawn under management agreement to allow habitat recovery, and then reintroduced including ponies with an emphasis on heavier spring grazing to reduce grasses and benefit heath. Current management of this unit is delivering good habitat conditions and supporting good feeding habitat for chough.	No
070	002096	Mynydd Penarfynydd (c)	Mynydd y Graig Section. This unit is undergrazed and largely unmanaged due rank gorse scrub and bracken. NT carried out bracken control along the path only last year. Further work needed. Need to carry out gorse cutting to open up areas to possible grazing. Possible extension of the management agreement with Penarfynydd.	Yes
071	002097	Mynydd Penarfynydd (d)	Management unknown. No issues known	No
072	002098	Mynydd Penarfynydd (e)	Management unknown. No issues known	No
073	002099	Mynydd Penarfynydd (f)	Management unknown. No issues known. Possible scrub problems, similar to Unit 70? Extend existing agreement on Unit 68 and 69?	Yes
074	002100	Penarfynydd	Management unknown. No issues known. Possible scrub problems, similar to Unit 70? Extend existing agreement on Unit 68 and 69?	Yes
075	002101	Meillionydd	No known issues	No
076	002103	Neigwl Crown Estate	Intertidal only. No known issues	No
077	002104	Neigwl National Trust	Bryn Foulk. NT land. Undergrazed, with areas of slumping cliffs.	Yes
078	002106	Neigwl Nanhoron Estate	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach.	Yes
079	002108	Siop Penyrallt	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach.	Yes
080	002110	Nant (1)	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach.	Yes
081	002111	Ty Mawr	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach.	Yes
082	002112	Neigwl Ganol	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach.	Yes
083	002114	Neigwl Plas	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach.	Yes
084	002115	Trefollwyn Bach	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach.	Yes
085	002117	Dyffryn	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach.	Yes
086	002119	Towyn (2)	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach.	Yes
089	002130	Ty'n Don (3)	Undergrazing of coastal slope. Issues with landowners not wishing to put stock on land open to the cliffs and beach.	Yes
092	002141	Nant (2)	No known issues. Possible bracken control needed?	No

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
100	002178	Cilan Fawr (5)	This unit was identified as part as an area important for the wet heath communities and pools which support an assemblage of rare plants. Recent management to open up a proportion of the pools and provide colonisation opportunities was very successful. Grazing levels are about right, as the ponies tend to congregate about the pools. No outstanding issues.	No
111	002179	Cim Farm (2)	Condition unknown at present. Management previously offered following notification, but not taken up. Needs investigation.	Yes
116	002180	Tyn Don (5)	Dune heath and grassland needs grazing, but issues with stock access onto the beach. Adjoins unit 91, which is a priority unit for the mason bee, so management here important for providing new opportunities for suitable habitat. Possible management agreement.	Yes
118	002997	Nant y Big	Part of the site which seems to be only Clogwyni Penllyn and SSSI, and not part of the SPA. Review. Needs investigation.	Yes
119	002999	Porth Dinllaen	Management as per unit 27.	Yes
120	003000	Porth Dinllaen	Management issues as per Unit 28.	Yes

7. GLOSSARY

This glossary defines 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 assessment²: 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

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

management carried out for purposes other than achieving the conservation objectives.

Conservation objective The expression of the desired **conservation status** of a **feature**, expressed as a **vision for the feature** and a series of **performance indicators**. The conservation objective for a feature is thus a composite statement, and each feature has one conservation objective.

Conservation status A description of the state of a **feature** that comprises both its **condition** and the state of the **factors** affecting or likely to affect it. Conservation status is thus a characterisation of both the current state of a feature and its future prospects.

Conservation status assessment The process of characterising the **conservation status** of a **feature** with particular reference to whether the aspirations for it, as expressed in its **conservation objective**, are being met. The results of conservation status assessment can be summarised either as ‘favourable’ (i.e. conservation objectives are met) or unfavourable (i.e. conservation objectives are not met). However the value of conservation status assessment in terms of supporting decisions about **conservation management**, lies mainly in the details of the assessment of feature **condition**, **factors** and trend information derived from comparisons between current and previous conservation status assessments and condition assessments.

Core Management Plan A CCW document containing the conservation objectives for a site and a summary of other information contained in a full site **Management Plan**.

Factor Anything that has influenced, is influencing or may influence the **condition** of a **feature**. Factors can be natural processes, human activities or effects arising from natural process or human activities, They can be positive or negative in terms of their influence on features, and they can arise within a site or from outside the site. Physical, socio-economic or legal constraints on **conservation management** can also be considered as factors.

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

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

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

Integrity See **site integrity**

Key Feature The habitat or species population within a **management unit** that is the primary focus of **conservation management** and **monitoring** in that unit.

Management Plan The full expression of a designated site’s legal status, **vision**, **features**, **conservation objectives**, **performance indicators** and management requirements. A complete management plan may not reside in a single document, but may be contained in a number of documents (including in particular **the Core Management Plan**) and sets of electronically stored information.

Management Unit An area within a site, defined according to one or more of a range of criteria, such as topography, location of **features**, tenure, patterns of land/sea use. The key characteristic of management units is to reflect the spatial scale at which

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

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 .

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