Cyfoeth Naturiol Cymru
Natural Resources Wales

CORE MANAGEMENT PLAN
INCLUDING CONSERVATION OBJECTIVES

FOR

DROSTRE BANK SPECIAL AREA OF CONSERVATION (SAC)

Cyfoeth Naturiol Cymru
Natural Resources Wales

NATURA 2000

Ramsar

Noddir gan Lywodraeth Cymru
Sponsored by Welsh Government

Version	Date	Summary of changes made	Approved by
Version 3	9th May 2014	Conversion to new format, incl. updates to Vision, Conservation Objectives and Performance Indicators	Gareth O'Shea
Version 2	Mar 2013	Updates to Maps, Vision, PIs, Conservation Status & Action Plan	David Mitchell
Version 1	2008	N/A	David Mitchell

Contents

PREFACE

This document provides the main elements of Natural Resources Wales' management plan for the site named. It sets out what needs to be achieved on the site, and advice on the action required. This document is made available through Natural Resources Wales' 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 Natural Resources Wales' web site.

One of the key functions of this document is to provide Natural Resources Wales' statement of the Conservation Objectives for the relevant Natura 2000 site. This is required to implement the Conservation of Habitats and Species Regulations 2010, as amended. As a matter of Welsh Government Policy, the provisions of those regulations are also to be applied to Ramsar sites in Wales.

1. VISION FOR THE SITE

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

The purpose of the designation of Natura 2000 sites is to help secure the maintenance or restoration of habitats and species to favourable conservation status *for the foreseeable future*. Given that we foresee a changing climate, despite the uncertainty of the nature, degree and timing of those changes, we must address the need to ensure the resilience of each site to that changing environment. This will be achieved in the first instance by ensuring favourable condition of the important features, since a healthy feature is likely to be more resilient to the effects of climate change than one which is already stressed. Secondly, consideration must be given to those structures, functions and processes which maintain or boost the resilience of ecosystems to climate stress, including the avoidance, reduction or mitigation of other stress factors such as invasive species, nutrient enrichment, habitat and population fragmentation.

This site forms part of a wider network, and is ecologically connected with its surroundings and with other designated sites in the region. Although the focus of this document is on the individual site, the conservation objectives and management requirements need to be considered in the wider context. A connected network of sites is more robust than sites in isolation, and more resilient to pressures such as climate change.

The following is a description of how we would like to see the features at Drostre Bank:

At least a quarter of the site supports marshy grassland, dominated by Purple Moor-grass *Molinia caerulea* and rushes *Juncus* spp., with a range of typical associated plants. The majority of this habitat is 'fen meadow', with plants including Meadow Thistle *Cirsium dissectum*, Quaking Grass *Briza media*, Tawny Sedge *Carex hostiana*, Flea Sedge *C. pulicaris*, Devil's-bit Scabious and Marsh Valerian *Valeriana dioica*. Some areas are particularly species-rich with uncommon plants, such as Early Marsh-orchid *Dactylorhiza incarnata* and Pepper-saxifrage *Silaum silaus*, also present. Purple Moor-grass and rushes are not overwhelmingly dominant in the sward. Plants indicating disturbance and nutrient enrichment, such as Creeping Buttercup *Ranunculus repens* and White Clover *Trifolium repens*, are uncommon, trees and shrubs are largely absent and bare ground does not exceed 10% within the fen meadow areas.

Along with the marshy grassland the field west of the road supports a small flush, dominated by small sedges *Carex* spp., Common Cottongrass *Eriophorum angustifolium* and 'brown' mosses, that is fed by a base-rich spring.

Around 65 % of the site is wooded, of which at least a quarter is wet woodland dominated by Alder *Alnus glutinosa*. Associated trees and shrubs in these areas include Ash *Fraxinus excelsior*, Downy Birch *Betula pubescens*, Rusty Willow *Salix cinerea* subsp. *oleifolia* and Hazel *Corylus avellana*. The ground flora includes a range of typical plants, such as Meadowsweet *Filipendula ulmaria*, Yellow Pimpernel *Lysimachia nemorum* and Remote Sedge *Carex remota*. Plants indicating nutrient enrichment and disturbance, such as Stinging Nettle *Urtica dioica* and Cleavers *Galium aparine*, are uncommon. The woodland contains glades and the extent of canopy cover fluctuates but there is sufficient regeneration from seed, or suckers, to maintain the canopy cover in the long term.

Woodland on the drier ground is dominated by oak *Quercus* spp. or Ash with a shrub layer and ground flora typical of these types of woodland.

A ‘buffer zone’ is maintained in places around the site boundary in order to prevent the run-off of nutrient-rich ground and surface water into the site from adjacent areas of agriculturally improved pasture.

2. SITE DESCRIPTION

2.1 Area and Designations Covered by this Plan

Grid reference: SO096312

Unitary authority:

- Powys (Brecknock)

Area (hectares): 12.7

Designations covered: Drostre Bank SAC and Drostre Bank SSSI which overlap entirely.

Detailed maps of the designated sites are available on the Natural Resources Wales web site.

2.2 Outline Description

The site includes a large area of species-rich fen meadow, in association with some rush pasture. There is also an important area of alluvial ash and alder woodland, with transitions to drier woodland dominated by Ash and Oak.

2.3 Outline of Past and Current Management

There is no stockproof boundary between the woodland and grassland at Lower Drostre Farm (management unit 1), so stock have access to both woodland and fen meadow areas. This unit receives light grazing along with adjacent fields outside the site boundary, and has been used as cattle pasture since at least 1971 and probably consistently for the last 60 years.

Stocking at Lower Drostre and other aspects of site management were subject to a Tir Gofal agreement which expired at the end of 2013. This agreement specified moderate cattle grazing during the summer months to maintain the vegetation types present, as well as scrub control and the maintenance of ditches. There was a further agreement between the Countryside Council for Wales and the landowner to restrict cultivation of the previously arable fields that slope down to the site on the east side but this expired in April 2012.

The land at Twyn-yr-odyn Farm (management unit 2) has also been grazed in conjunction with adjacent non SSSI/SAC fields. This area has a history of cattle grazing up until 2011, when a combination of sheep grazing and topping was introduced for an experimental period. This area became wetter and more nutrient-rich due to a blocked boundary ditch but this was cleaned out in 2011.

Both parts of the site have tended to be grazed rather too lightly on occasions in the past due to stock preferentially grazing the adjacent improved pastures.

2.4 Management Units

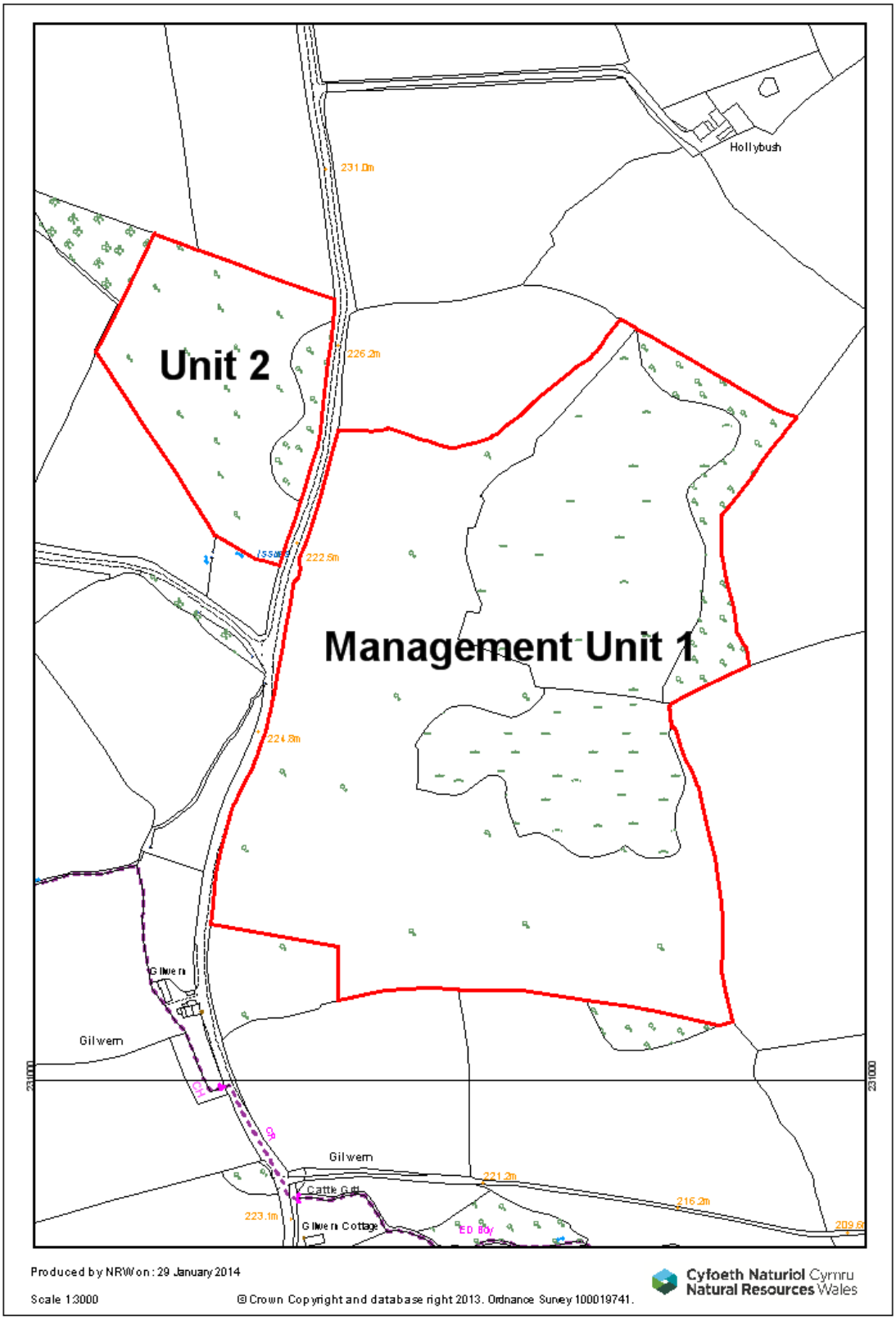
The area covered by this plan has been divided into two management units to enable practical communication about features, objectives, and management. This will also allow us to differentiate between the different designations where necessary. In this plan the management units have been based on land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

Map 1 below shows the management units referred to in this plan.

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

Unit reference	Unique unit number	SAC	SSSI	Natural Resources Wales owned/managed	Other
Drostre Bank					
1	000437	✔	✔		
2	000438	✔	✔		

Map 1. Management Units at Drostre Bank



2.5 Position within an ecological network

Although remnant patches of marshy grassland are still quite widespread in parts of lowland Wales, sizable areas of species-rich fen meadow vegetation are now rare, particularly in East Wales, mainly as a result of land drainage and agricultural improvement. They now tend to occur in small isolated fields, as is the case with Drostre Bank. There is no clear habitat connectivity between Drostre Bank and other fen meadow sites. The nearest sites with comparable vegetation are more than 10 km distant, for example Rhos Garth-fawr in Radnorshire. The possibility of re-creating similar areas of fen meadow habitat in the vicinity of Drostre Bank is probably very limited, although pockets of other marshy grassland are present within one or two kilometres of the site and it may be possible to restore or extend some of these.

Wet woodland is still relatively common in this part of Brecknock and there are quite large areas of ‘alluvial forest’ within Afon Llynfi SSSI, 4.5 km to the north-east, Llyn Syfaddan SSSI, 5.5 km to the south-east, and River Usk (Upper Usk) SSSI, 6.5 km to the south, plus several other small patches within 2km of Drostre Bank that could form an ‘ecological network’ for more mobile woodland animals and birds, including Lesser Horseshoe Bats. There is also an extensive hedgerow network in the area which locally enhances woodland continuity. However, at a larger scale, the site does not fall within any major woodland network as mapped by NRW.

The site is not currently believed to be at high risk from the effects of climate change, so long as annual rainfall remains relatively high. The habitats present are fairly resilient and examples can still be found much further south in Britain and Europe where average temperatures are generally higher.

3. THE FEATURES

3.1 Confirmation of Features

Designated feature	Relationships, nomenclature etc	Conservation Objective in part 4
SAC features		
Annex I habitats that are a primary reason for selection of this site: 1. *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) (EU Habitat Code: 6410), with associated mineral-rich flush vegetation.	Fen meadow with Purple Moor-grass, Meadow Thistle and a variety of other plants (National Vegetation Classification type M24) Generally referred to as 'fen meadow' throughout this document.	1
Annex I habitat present as a qualifying feature, but not a primary reason for selection of this site: 2. Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incarnae, Salicion albae*) (EU Habitat Code: 91EO)	Wet woodland dominated by Alder, Birch and Willow (NVC type W7). The ground flora consists of a variety of swamp and fen plants including Meadowsweet, Yellow Pimpernel, and Remote Sedge. Generally referred to as 'wet woodland' throughout this document.	2
SPA features		
Not applicable		
Ramsar features		
Not applicable		
SSSI features		
3. Marshy Grassland	Includes the fen meadow described above, which is the main reason for SSSI selection, and rush and purple moor-grass pasture (NVC types M23 & M25). There are small areas of associated shorter flush (M10) vegetation.	3
4. Semi-natural Broadleaved Woodland	Includes the wet woodland described above, which is the main reason for SSSI selection, with associated dry woodland (NVC types W8	4

	and W10).	
5. An important population of Pepper Saxifrage *Silaum silaus.*	This locally rare plant has a restricted range in South Wales.	5

3.2 Features and Management Units

This section sets out the relationship between the designated 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 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' (sympathetic) features because:
(a) they are present in the unit but may be of less conservation importance than the key feature; and/or
(b) they are present in the unit but in small areas/numbers, with the bulk of the feature in other units of the site; and/or
(c) their requirements are broader than and compatible with the management needs of the key feature(s), e.g. a mobile species that uses large parts of the site and surrounding areas: and/or
(d) key features (KH, KS) are closely associated with these features, and the conservation of key features depends on them being managed appropriately.

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.

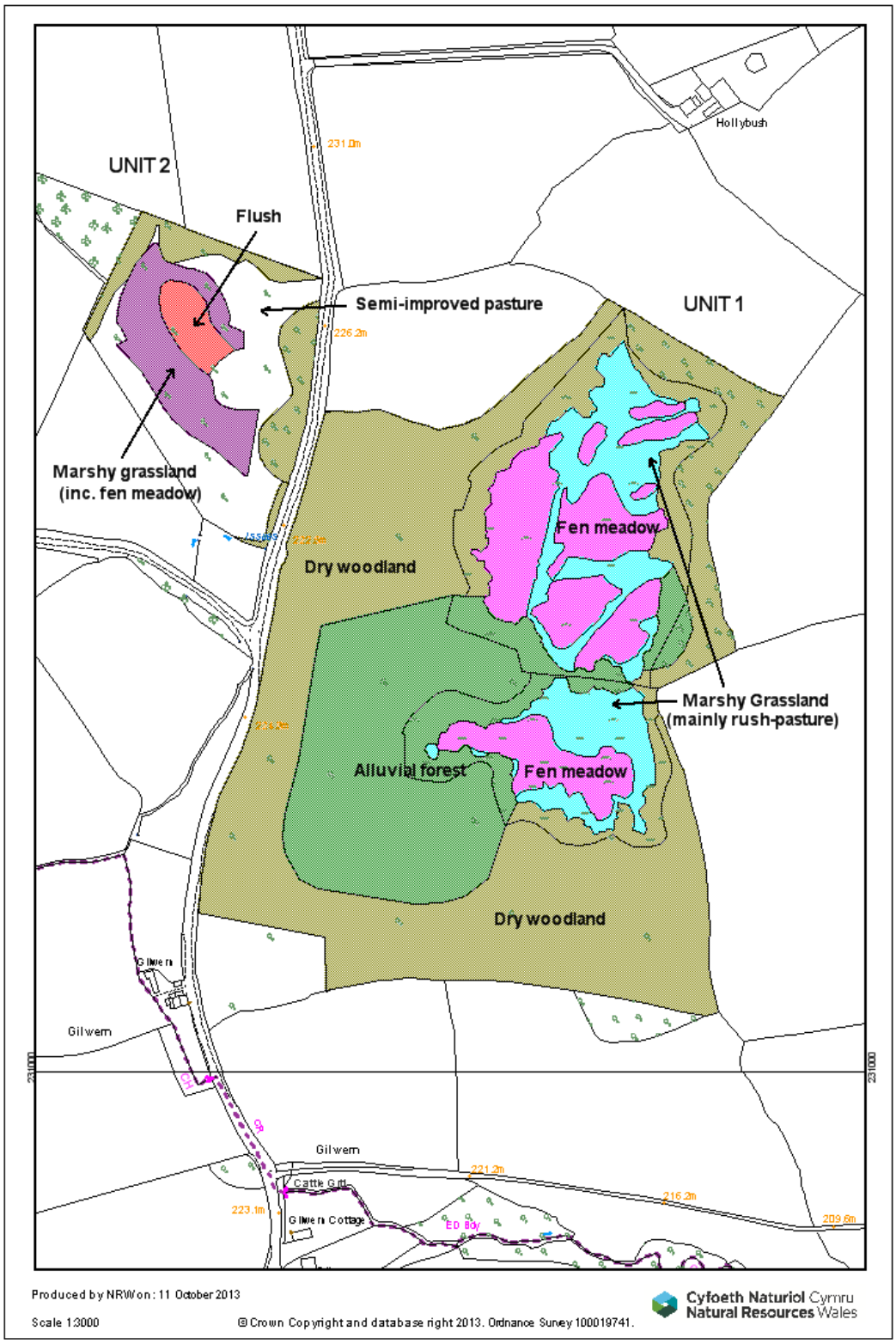
x – Features not known to be present in the management unit.

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

Drostre Bank	Management Unit	
Unique unit number	**000437**	**000438**
Unit reference (SAC)	1	2
Unit name	Lower Drostre	Twynrodyn
SAC features		
1. Fen meadow	KH	KH
2. Wet woodland	KH	x
SSSI features		
3. Marshy Grassland	Sym	Sym
4. Semi-natural Broadleaved Woodland	Sym	Sym
5. Pepper Saxifrage	KS	x

The map below shows the distribution of different habitat features within the site:

Map 2: Habitats at Drostre Bank (based on surveys in 1997, 1998 & 2010



4. CONSERVATION OBJECTIVES

Background to Conservation Objectives:

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

Conservation objectives for individual SACs and SPAs are required by the 1992 'Habitats' Directive (92/43/EEC). The aim of the Habitats Directive is the maintenance, or where appropriate the restoration, of the 'favourable conservation status' (FCS) of habitats and species listed in the Annexes to the Directive (see Box). Therefore FCS provides the overarching framework for defining the conservation objectives for individual SACs.

Favourable conservation 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."

Although neither the Birds Directive nor the Ramsar Convention refer to FCS, Natural Resources Wales considers that the overall aim of both those legal instruments is sufficiently similar to FCS to make it practical and proportionate to use the same guiding principle when establishing the conservation objectives for SPAs and Ramsar sites, as well as SACs. Therefore the Habitats Directive definition of FCS is considered to provide the overarching framework for conservation objectives for all SACs, SPAs and Ramsar sites in Wales.

The achievement of FCS is not an objective that applies at the level of the individual sites. Rather it is a wider objective to which each individual site contributes. Therefore the conservation objectives for an individual site are intended to express what is considered to be that site's appropriate contribution to achieving FCS. Since SACs are the most important mechanism in the Habitats Directive for achieving FCS, and the sites represent the most important areas for conservation of the Annex I habitat types and Annex II species, the objectives for each individual SAC should seek to ensure that the site makes a substantial contribution which properly reflects its importance in a local, national and European context and the particular reasons why the site was selected for inclusion in the network. A similar approach is taken to setting conservation objectives for SPAs and Ramsar sites.

Achieving the conservation objectives of individual sites requires appropriate management and the control of factors which are influencing, or may influence the features.

The conservation objectives have a number of specific roles:

- Communication
  The conservation objectives should help convey to stakeholders what are the reasons for the designation and what it is intended to achieve.

- Site planning and management
  The conservation objectives guide management of sites, to maintain or restore the designated habitats and species. They provide the basis for identifying what management is required both within the site boundary, and outside it, where achieving the objectives requires action to be taken outside the site.

- River Basin Management Planning
  Conservation Objectives for aquatic and water dependent Natura 2000 features are also used as the "standards and objectives" referred to in Article 4 (1c) of the Water Framework Directive (WFD) (2000/60/EC). In 2009, Welsh Ministers decided that where Natura 2000 conservation objectives are more stringent than 'Good Ecological Status' (GES) as defined in the WFD, they (and the standards they contain) are the objectives referred to in Article 4(1c) of the WFD.

- Assessing plans and projects
  Article 6(3) of the 'Habitats' Directive requires the assessment of proposed plans and projects in view of 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. There are similar requirements for the review of existing decisions and consents.

- Monitoring and reporting
  In addition to foregoing purposes, conservation objectives provide the basis for defining the evidence that will be used for assessing the condition of a feature and the status of factors that affect it. That evidence is contained in

a separate but closely related set of 'performance indicators' which provide the basis for monitoring and reporting. To avoid confusion between the conservation objectives and the measures specified in performance indicators, the performance indicators are set out in an Appendix to this document.

The conservation objectives in this document reflect Natural Resources Wales' 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 Natural Resources Wales in the light of new knowledge.

b. Format of the conservation objectives

Each conservation objective is a composite statement defining a site-specific aspiration for each designated feature. This composite statement contains clauses that correspond to all the elements of FCS, namely:

For habitat features:

- Extent should be stable in the long term, or where appropriate increasing;
- Quality (including in terms of ecological structure and function) should be being maintained, or where appropriate improving;
- Populations of the habitat's typical species must be being maintained or where appropriate increasing;
- Factors affecting the extent and quality of the habitat and its typical species (and thus affecting the habitat's future prospects) should be under appropriate control.

For species features:

- The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term;
- The distribution of the population should be being maintained;
- There should be sufficient habitat, of sufficient quality, to support the population in the long term;
- Factors affecting the population or its habitat should be under appropriate control.

The elements above constitute a generic checklist or guide to the elements that should normally be included in the conservation objectives, in order to ensure that the site makes an effective and appropriate contribution to achieving favourable conservation status for the habitats and species for which it is designated.

There is one conservation objective for each designated feature listed in part 3. In some cases, where there are distinct areas or forms of a designated habitat or separate populations of a designated species within a site, the conservation objective is sub-divided into different sections to enable different aspirations to be expressed for different occurrences of the features within the site.

As well as describing the aspirations for the condition of the feature, each conservation objective contains a statement that the factors which significantly affect the feature are under appropriate control.

4.1.1 Conservation Objective for Features 1: Fen meadow comprising *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) (EU Habitat Code: 6410)

Extent should be stable in the long term, or where appropriate increasing.	• **Fen meadow occurs in both management units, as shown in map 2 above, and the proportion of this vegetation within habitat mosaics is stable or increasing.**
Quality (including in terms of ecological structure and function) should be being maintained, or where appropriate improving.	The fen meadow is of high quality throughout and composed of typical, native species, with non-natives, scrub or indicators of drying out, water-logging or eutrophication and areas of disturbance largely absent. The majority (at least 70%) of the fen meadow is 'species-rich', where: • The following plants are frequent: Meadow Thistle, Devil's-bit Scabious, Tawny Sedge, Flea Sedge Quaking Grass, Marsh Valerian and Marsh Orchids *Dactylorhiza* spp. • Purple Moor-grass and rushes are not completely dominant and there is no significant accumulation of dead vegetation from year to year. • Plants that indicate high levels of nutrients are not prominent in the sward. • Trees and shrubs are absent.
Populations of the habitat's typical species must be being maintained or where appropriate increasing.	The fen meadow should also support species that are naturally associated with high quality examples of the habitat, including all its components from the soil, through the ground layer to the herb/grass layer and the micro-habitats and structural variations that occur within them. This includes soil flora and fauna, lower plants, vascular plants, fungi, invertebrates, mammals and birds.
Factors affecting the extent and quality of the habitat and its typical	• There is no significant input of nutrient-rich water from ditches and surrounding land.

species (and thus affecting the habitat's future prospects) should be under appropriate control.	• Existing ditches are maintained but not over-deepened and there are no significant areas of water-logging as result of blocked ditches. • Moderate grazing by cattle and/or ponies between spring and autumn each year is essential in maintaining the marshy grassland communities. • Some bare ground is present in the marshy grassland but cattle poached areas should not be extensive.

4.2 Conservation objective for Feature 2: Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incarnae, Salicion albae*) (EU Habitat Code: 91EO)

Extent should be stable in the long term, or where appropriate increasing.	• **Wet woodland occurs in management unit 1, approximately as show on map 2, and there is no reduction in the overall extent of this habitat.**
Quality (including in terms of ecological structure and function) should be being maintained, or where appropriate improving.	The wet woodland is of high quality where: • The woodland canopy cover is maintained at greater than 50%. • Non-natives are largely absent from the canopy, shrub layer and ground flora. • The wet woodland tree canopy is dominated by Alder, Ash, Birch and Willow. • Young trees/saplings and/or vegetative re-growth of the above trees and shrubs are present in the wet woodland. • The ground flora of the wet woodland consists of a variety of wetland plants, including Meadowsweet, Yellow Pimpernel, and Remote Sedge. • Plants indicating nutrient enrichment or disturbance, such as Stinging Nettle, Cleavers, and Rosebay Willowherb *Chamaenerion angustifolium,* are not extensively dominant in the wet woodland. • Some bare ground is present but it is not extensive.
Populations of the habitat's typical species must be being maintained or where	The wet woodland should also support species that are naturally associated with a high quality wet woodland ecosystem, including all its components from the soil, through ground flora

appropriate increasing.	and shrub layer to the canopy, and the micro-habitats and structural variations that occur within them. This includes soil flora and fauna, deadwood fauna, epiphytic lower plants, breeding birds and higher plants as listed above.
Factors affecting the extent and quality of the habitat and its typical species (and thus affecting the habitat's future prospects) should be under appropriate control.	• There is no significant input of nutrient-rich water from ditches and surrounding land. • No drainage works are undertaken within the wet woodland areas but existing ditches channelling surface water into the woodland are maintained.

5. ASSESSMENT OF STATUS AND MANAGEMENT REQUIREMENTS

This section provides:

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

5.1 Status and Management Requirements of Feature 1: *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) (EU Habitat Code: 6410)

Status of Feature 1:

The condition of this feature within the site is considered to be **Unfavourable** (2010).

The results of plot monitoring carried out in June 2010 (Wilkinson, 2010a) show that the proportion of samples in both plots within management unit 1 conforming to fen meadow habitat was below the target included in the performance indicators (see appendix 1.1). The habitat quality was also below that required, and hence the fen meadow unit 1 as a whole, is considered to be unfavourable. Although the fen meadow habitat in unit 2 was not sampled, the plots in unit 1 include the largest stands of fen meadow habitat, they contain a large proportion of the feature and the condition of the vegetation within them is representative of the fen meadow habitat outside of the plots and across the site in general. We can therefore deduce that the condition of the fen meadow feature overall is unfavourable.

A significant decline in habitat extent and quality in sampling plots since 2006 has been identified and, as a result, the condition of the feature overall is determined as being in **unfavourable, declining** condition.

As of the end of 2013, the future management of the majority of the fen meadow habitat is uncertain, due to the expiry of the Tir Gofal agreement in management unit 1, expiry of an agreement to limit fertiliser application on adjoining land and a change in tenant at Lower Drostre. Therefore, the conservation status of this feature within the site is considered to be **unfavourable.**

Management Requirements of Feature 1:

Grazing

In the open areas, grazing in spring, summer and autumn prevents domination by rushes and Purple Moor-grass, maintains the diversity of plant species and largely prevents the spread of scrub. Heavier grazing is likely to eliminate sensitive species and could cause localized physical damage to the sward leading to invasion by “weedy” species.

Past usage as cattle pasture has been important in maintaining the habitat and the current regime of cattle grazing in unit 1 should be continued. It would also be desirable to re-instate cattle or pony grazing in unit 2. Cattle are heavy enough to break down leaf litter and young scrub, and their feeding action results in a variable sward height. In marshy grassland, sheep concentrate their grazing on more palatable vegetation, avoiding tussocky Purple Moor-grass and rushes, often leading to overgrazing of some areas and under-grazing of others. Therefore, grazing with sheep alone is not ideal. Stocking densities should be aimed towards achieving a varied sward height where about 80% of the habitat (excluding tall rushes) is between 10 and 30 cm.

Drainage
The fen meadow habitat occurs in areas of impeded drainage or around natural springs. Existing old ditches in these areas require careful maintenance to prevent the fen meadow becoming too wet, but they should not be deepened, and no new drainage should be installed.

Soil Fertility
The open habitat is influenced by ground water that is moderately mineral-rich but not excessively so. The application of agricultural fertilisers or manure on site will upset the natural nutrient balance and have a detrimental effect on the vegetation.

Surface water entering the site from the surrounding fields or road drains is likely to have much higher concentrations of nitrates and phosphates, arising from agricultural fertiliser application. Such water should be diverted away from the site. A restriction in arable operations on the sloping fields above the site reduces the potential for nutrient-rich water and soil washing down. A 'buffer strip' in this area against the site boundary is desirable. This was achieved through a management agreement in the past which could be renewed, or low input management regime might be implemented in these fields under the Glastir agri-environment scheme.

Stock feeding on the grassland would lead to damage from localised nutrient enrichment and poaching and should be avoided.

5.2 Status and Management Requirements of Feature 2: Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incarnae, Salicion albae*) (EU Habitat Code: 91EO)

Status of Feature 2:

The condition of this feature within the site is considered to be **favourable** (2010).

Monitoring carried out in 2010 (Wilkinson, 2010b), using the performance indicators shown in appendix 1.2, concluded that the condition of the feature was **favourable, maintained.**

Management Requirements of Feature 2:

Grazing
In the wet woodland areas, light grazing maintains the diversity of plant species and preserves the open glades. Increased grazing would eliminate the more sensitive woodland species and prevent tree and shrub regeneration. The grazing practice and woodland regeneration will be kept under continued review.

If appropriate grazing levels are maintained, natural regeneration of trees and shrubs should be sufficient to preserve the woodland cover whilst retaining some open glades.

Woodland management
With the current grazing in place, woodland management is not desirable, other than to remove saplings of any non-native species, which may have a detrimental effect on the native flora. Standing and fallen dead timber provides important habitat for beetles and fungi and should be retained.

Drainage
The wet woodland occupies an area of impeded drainage in the eastern part of the site. The water comes from old ditches originating in the fen meadow. These ditches, and the outfall stream within the woodland, may be maintained, but they should not be deepened or new drainage installed.

Nutrient enrichment
The woodland soil is richer than that of the fen meadow because nutrients accumulate here as a result of down-slope water movement and leaf-fall. However, further enrichment from agricultural run-off or stock feeding would promote dominance by weed species, such as nettles.

Surface water from the surrounding fields or road drains should be diverted away from the site whilst a restriction on the arable operations in the sloping fields above the site reduces the potential for nutrient-rich water and soil washing down.

6. ACTION PLAN: SUMMARY

This section takes the management requirements outlined in Section 5 a stage further, assessing the specific management interventions required on each management unit. This information is presented in two parts:

- A summary of the information held in Natural Resources Wales' Actions Database for sites
- A summary of ongoing management which is not recorded in Natural Resources Wales' actions database

6.1 Actions in Natural Resources Wales' actions database

Site Name(s): Drostre Bank (SSSI)

Unit reference	Unique Unit Number	Unit Name	Summary of Conservation Management Issues	Action needed ?
1	000437	Lower Drostre	Site has received insufficient cattle grazing due to recent wet summers, which is likely to have led into the decline in quality of the fen meadow habitat. SAC monitoring in 2010 concluded that the condition is unfavourable declining. The current tenant left at the end of April 2013. It is not clear if the management needed to comply with the Tir Gofal agreement on the SSSI will continue until end 2013, or who is going to manage the land in the future. The main priorities are to ensure site retains suitable grazing regime and is protected from nutrient enrichment of surrounding land by maintaining a 'buffer zone' on edge of adjacent arable fields. Some scrub clearance from the marshy grassland may also be needed.	Yes
2	000438	Twyn-yr-rodyn	The ditches along the eastern and southern boundary have been cleared, which allows potentially nutrient rich water from outside the site to drain past the site and not wash over the marshy grassland/flush	Yes

			vegetation. This unit was not grazed in 2012 as the owner wished to complete some fencing before putting stock in. The current (2013) grazing situation needs checking.	

6.2 Ongoing management

Unit 1 was subject to a Tir Gofal agreement that expired at the end of 2013. The land within the site was managed under habitat prescriptions for marshy grassland and woodland with light grazing.

The details of grazing management of unit 2 in 2013 are unclear.

Under the Terms of a management agreement between the CCW and previous tenant of unit 1, a 25 metre buffer strip was maintained against the eastern side to benefit the SSSI by reducing run off of soil and nutrients into the SSSI from adjoining land. This agreement expired in April 2012 and it is unclear if any nutrients have been applied to this area since then.

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 Natural Resources Wales and the UK nature conservation agencies.

Action	A recognisable and individually described act, undertaking or project of any kind, specified in section 5 or 6 of a Core Management Plan or Management Plan, as being required for protecting, managing or enhancing one or more of the features for which a site is designated.
Attribute	A quantifiable and monitorable characteristic of a feature that, in combination with other such attributes, describes its condition.
Common standards	See JNCC common standards.
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 is considered favourable when all the conservation objectives are being met.
Conservation management	Acts or undertaking of all kinds, including but not necessarily limited to actions, taken with the aim of achieving the conservation objectives of a site. Conservation management includes the taking of statutory and non-statutory measures, it can include the acts of any party and it may take place outside site boundaries as well as within sites. Conservation management may also be embedded within other

	frameworks for land/sea management carried out for purposes other than achieving the conservation objectives.
Conservation objective	The expression of the desired state of a feature, expressed as a composite statement defining the condition that we wish the feature to be in. Each feature has one conservation objective.
Core Management Plan	A Natural Resources Wales 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 management of the site can also be considered as factors.
Favourable condition	See condition.
Favourable conservation status	The Habitats Directive definition of Favourable Conservation Status (FCS) is given in full in section 4.
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.
JNCC common standards	A set of principles developed jointly by the UK nature 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.

Key Feature	The habitat or species population within a management unit that is the primary focus of 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 site 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 monitoring of sites designated for habitat and species conservation, 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 factors together with their associated target values (or ranges of values) 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.
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	This is defined in Welsh Government policy as 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 Natural Resources Wales' 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 limits	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 Statement	The statement conveying an impression of the whole site in the state that is intended

to be the product of its conservation management. A ‘pen portrait’ outlining the conditions that should prevail when all the conservation objectives are met. A description of the site as it would be when all the features are in favourable condition.

8. REFERENCES

Castle, G. (1997) Woodland NVC Survey Report (Ecotech), Site DB1, CCW Site files, Drostre Bank 32WQF/Scientific.

Drewett, D R (1999) Revised NVC Habitat Map: SSSI Extension, CCW Site files, Drostre Bank 32WQF/Scientific.

Woodman J. (2010) Revised NVC Habitat Map: Unit 1, Lower Drostre, Electronic document.

Wilkinson K. (2010a) Drostre Bank SAC *Molinia* meadows Monitoring report, Electronic document, DCT-10-149282.

Wilkinson K. (2010b) Drostre Bank SAC Alluvial forest Monitoring report, Electronic document, DCT-11-008443.

9. APPENDIX 1: PERFORMANCE INDICATORS

These performance indicators describe the evidence, including in particular evidence to be obtained from monitoring of sites and features, that will be used to inform judgements about whether or not the conservation objectives (in section 4 of the Core management plans) are being met.

These performance indicators should NOT be used as a substitute for the conservation objectives, including in particular for the purposes of assessing plans and projects. The assessment of plans and projects should be made in view of the conservation objectives set out in section 4.

9.1 Appendix 1.1
Performance indicators for Feature 1: *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) (EU Habitat Code: 6410)

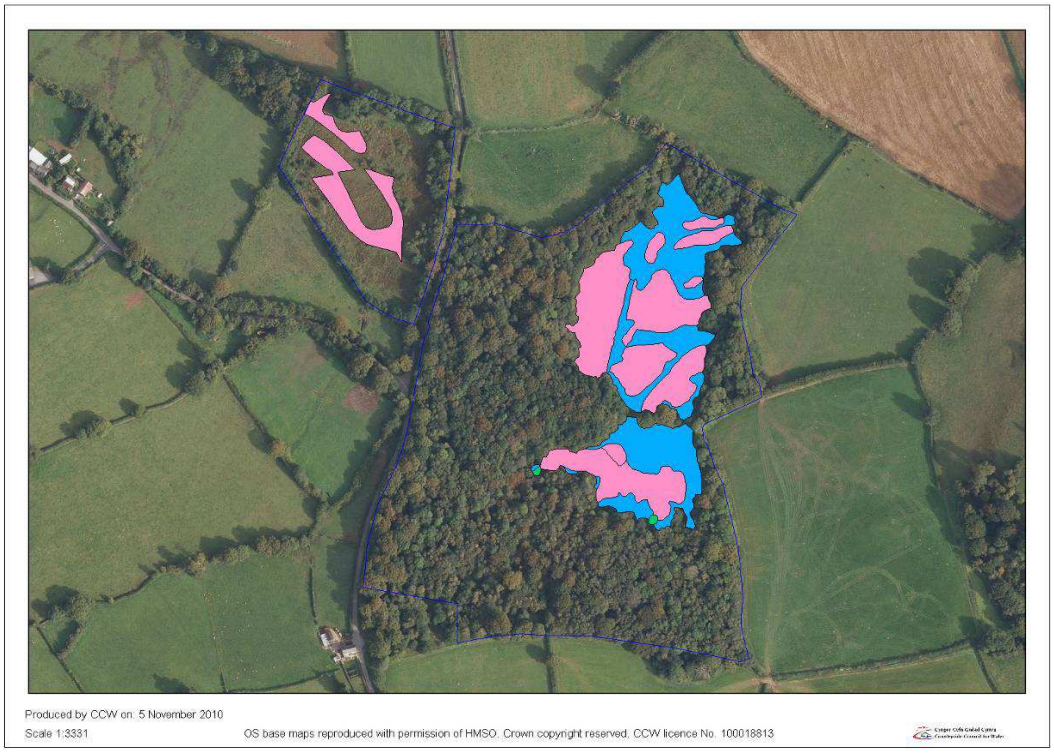
Performance indicators		The fen meadow habitat at Drostre Bank will be in favourable condition when:
Extent	Upper limit	None set.
	Lower limit	Fen meadow areas are broadly as mapped by Woodman in 2010 for management unit 1 and Stevens & Jackson, 1990 for management unit 2. and There are no large stands (>5 x 5 m or equivalent) of scrub or bare ground within the area mapped as the broader marshy grassland habitat. and In sample plot 1 at least 50% of samples are referable to fen meadow habitat. and In sample plot 2 at least 75% of samples are referable to fen

		meadow habitat.
Quality	Upper limit	None set.
	Lower limit	In sample plot 1 at least 35% of samples are referable to species rich fen meadow. and In sample plot 2 at least 50% of samples are referable to species rich fen meadow.
Site specific Definitions		
Fen meadow		Grassland where, within 1m of any point, *Molinia caerulea* is present along with at least 1 of the following: *Cirsium dissectum*, *Carex pulicaris* or *Carex hostiana*.
Species rich fen meadow		*Molinia meadows* habitat where, within any 50cm radius: • At least four of the following species are present: *Briza media*, *Carex hostiana*, *Carex pulicaris, Cirsium dissectum, Succisa pratensis* and *Valeriana dioica*. • The cover of *Molinia caerulea* is <75% • None of the following are present at >10% or in combination >20%: *Holcus lanatus*, *Poa trivialis*, *Ranunculus repens* and *Trifolium repens* • The cover of Juncus spp. does not exceed 30% • Scrub/woody species are absent, although seedlings up to 10cm tall will be tolerated

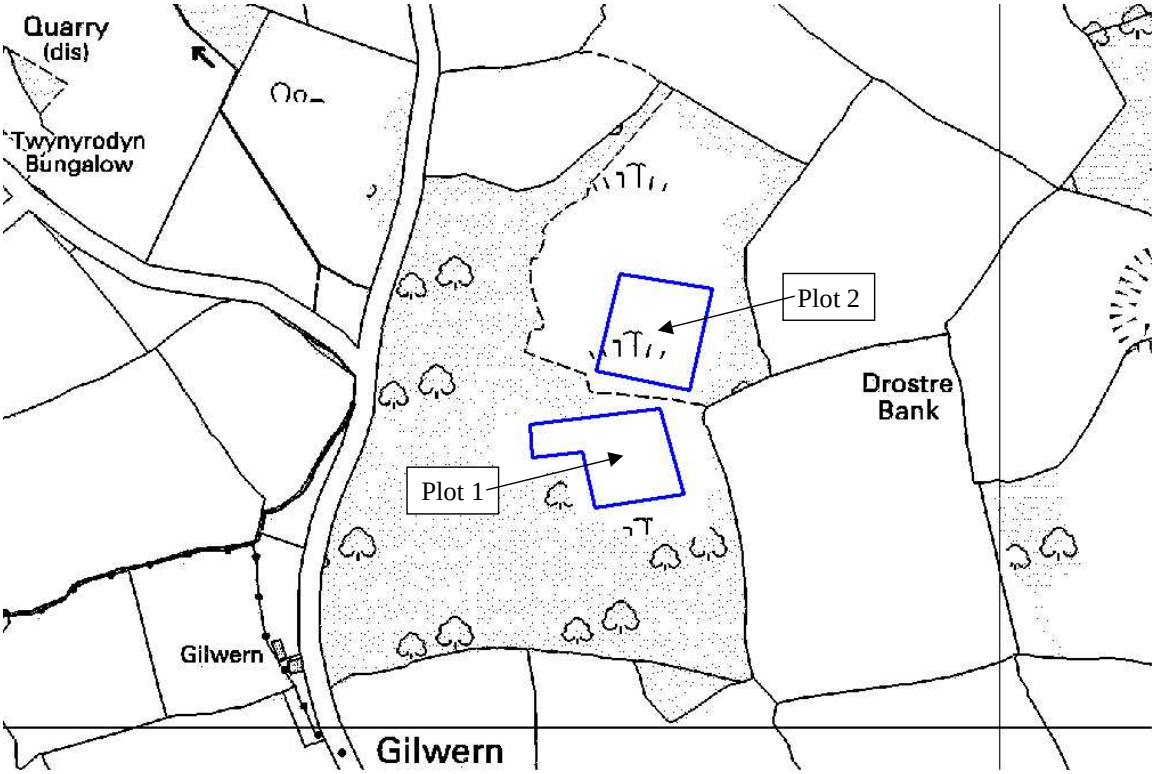
Rationale for performance indicator selection

See monitoring report (Wilkinson, 2010a).

Map 3. Showing the current extent of marshy grassland habitat (Woodman, 2010 and Stevens & Jackson, 1990). Note: only the habitat in management unit 1 (the eastern block) was re-mapped by Woodman in 2010. Survey data presented for management unit 2 (the western block) is from the original Phase II survey by Stevens & Jackson. Fen meadow habitat is shown in pink and other marshy grassland in blue (M23) and green (M25).



Map 4. Showing the locations of the fen meadow sample plots.



Performance indicators for factors affecting the feature		
Factor	**Factor rationale and other comments**	**Operational Limits**
F1. Livestock grazing	Without an appropriate grazing regime, the grassland would become rank and eventually turn to scrub and woodland. Moderate grazing by cattle and/or ponies between April spring and autumn each year is essential in maintaining the marshy grassland communities. Limits apply to both units.	*Lower limits:* The fen meadow will be subject to moderate summer grazing by cattle and/or ponies at least 4 in every 5 years. *Upper limits:* No significant grazing outside the growing season or heavy grazing at any time during the summer. Moderate summer grazing is defined as - cattle and/or

		ponies at a rate of 0.4 LSU/ha/year for the period April to October. Heavy grazing is defined as greater than 1 LSU/ha/year (1 LSU is roughly equivalent to a cow/horse, plus calf/foal).
F2. Extent of litter layer	Litter will build up in the absence of grazing leading to a reduction in the diversity of the vegetation. However, some creatures shelter in dead vegetation. Limits should be met in at least 70% of the samples in both plots in unit 1.	*Upper limit:* No more than 25% cover. *Lower limit:* Some dead plant material present.
F3. Extent of bare ground	Stock poached areas should not be extensive. Limits should be met in at least 90% of the samples in both plots in unit 1.	*Upper limit:* No more that 10% bare ground within 100cm radius of a sample point. *Lower limit:* None.
F4. Drainage	Hydrology important for maintaining the *Eu Molinion* grassland. New drainage ditches could cause drying out of the site, which would be detrimental to this plant community. Also there should be no input of nutrient enriched water via existing ditches. Localised enrichment likely to favour undesirable/weedy species to the detriment of more sensitive plants.	*Upper limit:* No new drainage ditches to be installed within the open meadow areas of the site. *Lower limit:* No water 'backing-up' into *Eu Molinion* grassland as a result of blocked ditches.

9.2. Appendix 1.2
Performance indicators for Feature 2: Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incarnae, Salicion albae*) (EU Habitat Code: 91EO)

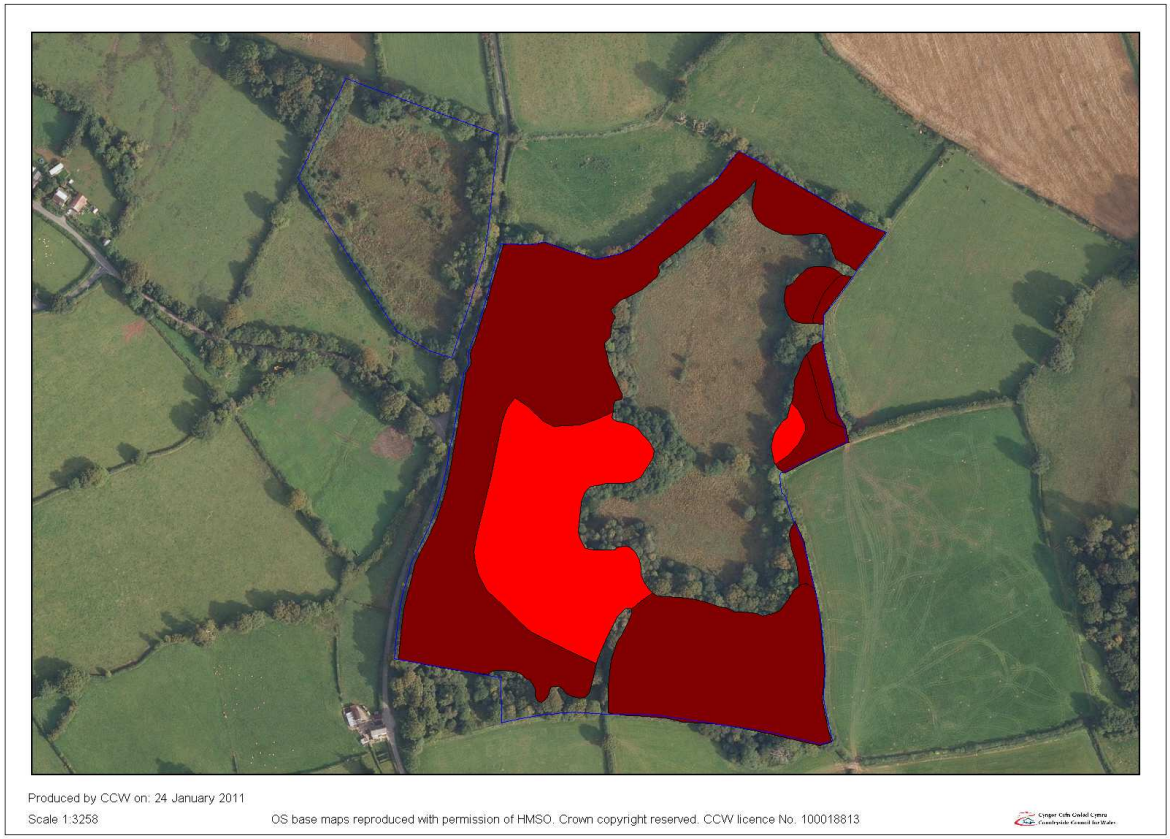
Performance indicators		The wet woodland of Drostre Bank will be in favourable condition when:
Extent	Upper Limit	No significant encroachment into open marshy grassland (see map 3).
	Lower Limit	Extent of this habitat in management unit 1 is at least 2.3 ha (see map 5 below).
Quality	Upper Limit	None set.
	Lower Limit	Within the area mapped as wet woodland: • The canopy cover is greater than 50%. • There are no (<5% of the total of each layer) non-natives in the canopy, shrub layer or ground flora. • The canopy is dominated (>50%) by *Alnus*, *Salix* or *Betula* either individually or in combination. • Re-generation is present. • There are no stands of bare ground, *Urtica dioica*, *Chamerion angustifolium*, *Galium aparine* or *Rubus fruticosus* agg. > 5m x 5m (or equivalent).
Site specific Definitions		
Wet woodland		Woodland where *Alnus glutinosa*, *Betula* sp. and *Salix* sp. are frequent in the canopy. Ground flora species associated with wet ground condition e.g. *Filipendula*

	ulmaria, *Carex remota* and *Lysimachia nemorum* are also occasional to frequent.
Non-native	Any tree, shrub species or ground flora species that is not native to Brecknockshire.
Bare ground	Areas of bare ground greater than 5 x 5m or equivalent created by poaching by livestock. Bare ground in runnels and streams, created by the movement of water, should not be included.
Regeneration	Native woody saplings or young coppice re-growth over 1.5m high.

Rationale for performance indicator selection

See monitoring report (Wilkinson, 2010b).

Map 5. Extent of the wet woodland (shown in red). Non-SAC woodland habitat (mapped in 1997) is shown in brown.



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