



*Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora*

*and*

*Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds*

**A PRIORITISED ACTION FRAMEWORK (PAF)  
FOR NATURA 2000**

**For the EU Multiannual Financing Period 2014-2020**

**WALES**

***December 2015***

# **A PRIORITISED ACTION FRAMEWORK (PAF) FOR NATURA 2000 IN WALES**

For the EU Multiannual Financing Period 2014-2020  
October 2015

## **EXECUTIVE SUMMARY**

### **Overall aim**

The aim for the Natura 2000 network in Wales is to have appropriate conservation measures in place to maintain or restore the designated habitats and species to favourable condition, contributing to Favourable Conservation Status.

### **Background to the Prioritised Action Framework**

The Prioritised Action Framework (PAF) is a planning tool which sets out how Member States of the European Union propose to manage their Natura 2000 sites, and how these management activities are to be funded.

The purpose of the PAF is to help Member States prioritise the actions needed and define the funding required. This approach will facilitate the integration of Members States' financing requirements into the various EU funding programmes, such as Structural Funds and Rural Development Programmes.

This document is the regional chapter of the UK PAF for Wales. Regional chapters also exist for Scotland, England and Northern Ireland, where they have their own priorities for restoration and habitat management. The first UK PAF and regional annexes were submitted to the European Commission in early 2013. [Link to Welsh Government Prioritised Action Framework for Natura 2000 sites.](#)

The PAF for Wales is prepared by Natural Resources Wales on behalf of the Welsh Government. The outcomes from the Natural Resources Wales (NRW) LIFE Natura 2000 Programme (LIFE11 NAT/UK/385) form the basis of the revised version.

### **Key messages from the PAF**

#### **Current situation of Natura 2000 in Wales**

Natura 2000 is a major factor affecting decision-making in Wales as the 92 Special Areas of Conservation (SACs) and 20 Special Protection Areas (SPAs) account for 7% of the land area of Wales and nearly 36% of Welsh territorial waters.

Wales has a robust existing legal and policy framework for ensuring the protection, management and restoration of Natura 2000, and new legislation is being enacted to ensure sustainable, integrated natural resources management in line with the ecosystem approach.

All Natura 2000 sites have management plans in place describing conservation objectives.

Wales has an active public, private and voluntary sector which is currently investing significant funds in Natura 2000 management and restoration as part of a wide variety of protected site and biodiversity projects, initiatives and routine work. Despite this, 58% of Natura 2000 features on sites are in unfavourable condition, due predominantly to a number of pressures and threats (issues and risks) which have impacts across the Natura 2000 network, and which act as barriers to progress towards favourable condition.

These are:

- Access and recreation management
- Air pollution
- Climate change
- Diffuse water pollution
- Flood and coastal erosion risk management
- Grazing and livestock management
- Habitat fragmentation
- Non-native invasive species and pathogens
- Man-made changes to hydraulic conditions
- Marine litter
- Marine fisheries
- Woodland management

### **Required actions/measures by 2020**

During 2014/15 we have prepared the Natura 2000 Programme for Wales, which is comprised of Prioritised Improvement Plans (PIPs) for all Natura 2000 sites and Thematic Action Plans to address the major issues and risks described above. These action plans include detailed, costed and prioritised actions. The highest priority actions are listed in Section G of the PAF.

For Natura 2000 sites, 3,600 actions have been identified.

Some of the key mechanisms for addressing these issues and risks are:

- Direct management
- Investigations
- Natural Resources Wales management agreements
- Glastir agri-environment scheme agreements
- Risk surveillance
- Targeted education and awareness raising
- Site nitrogen action plans

Key cross-cutting messages

- **Communication and education** is a key tool for delivering change, and investment is required in these areas. This may relate to the public, farmers, landowners and fishermen, and third party users of sites.
- **Changes to policy and legislation** – supporting the development and delivery of new legislation and policy and modifying existing arrangements.
- **Integration** of Natura 2000 needs into other sectors such as flood defence, agriculture, forestry, tourism and health to realise mutual savings and benefits.

- **Investigations** - a lack of knowledge remains an issue in some areas particularly the marine environment and evidence gaps need to be addressed in a strategic manner.

### **Current estimate of financial needs for management of Natura 2000**

The cost of addressing site-based actions has been calculated as £120 million (to 2020) (excluding staff costs). Strategic action identified in the Thematic Action Plans may have additional costs. These costs are to tackle outstanding issues and risks, they do not include costs for ongoing works which are already in hand. Wales does not have the resources to fund all these identified actions. Investment from new sources is required, particularly from EU funds which are currently not well used for Natura 2000 in Wales.

The need to develop better finance options in Wales is a key message of the PAF. Such options may include improved access to EU funds, better integration of Natura 2000 needs into existing public funding and innovative methods of generating finance.

### **Prioritisation**

Priorities for action have been laid out in the PAF as developed by the LIFE Natura 2000 Programme. Actions for each site have been prioritised based on the severity and extent of the issue/risk and urgency of action.

Priorities across Wales have been developed using the list of major issues and risks shown above and a Natura 2000 feature needs analysis.

Priority highlights based on ecosystems found within the Natura 2000 network are shown below:

Terrestrial/freshwater -	Peatlands – lowland and upland
	Sand dunes
	Rivers
	Woodlands
Marine -	Lagoons and associated vegetated shingle
	Estuaries and saltmarsh

### **Ecosystem services, climate change and socio-economic benefits of Natura 2000**

Natura 2000 habitats and species contribute to the economic well-being of Wales by providing a range of ecosystem services, such as carbon sequestration, defence against erosion and flooding, amelioration of pollution, tourism and recreation. Investment in management and restoration stimulates local businesses and growth of green jobs. Development of projects funded by European or national funds brings investment and job growth into the local economy.

The ecosystem benefits provided by Natura 2000 have been investigated and are included in the prioritisation exercise. The relationship between climate change and Natura 2000 is shown in the PAF. The contribution that Natura 2000 can make to socio-economic factors in relation to deprivation are also described in the PAF.

## **A. Introductory overview of Natura 2000 network for territory**

### **A.1 Short introduction to the habitat types of Annex I and species of Annex II of the Habitats Directive and Annex I and migratory bird species of the Birds Directive for which Natura 2000 sites are designated**

Wales supports a wide variety of habitats of European importance, ranging from rocky reefs, through mudflats, saltmarshes and lowland wetlands to montane heaths and screes on mountain summits. Species of European importance include examples of marine mammals, bats, riverine fish, plants and invertebrates. A key policy tool for conserving them all and providing special legal protection is the designation and management of European protected sites or Natura 2000 (N2K). These are areas of land, inland water and the sea which are designated as Special Areas of Conservation (SACs) under the Habitats Directive, and Special Protection Areas (SPAs) under the Birds Directive<sup>1</sup>.

Over the last 60 years, there has been a reduction in the extent of semi-natural habitat and in the populations of many species of plants and animals in the UK. Over the same period, Wales has taken conservation action to mitigate this general decline in biodiversity through the establishment of a substantial network of protected areas, and has brought in measures to reduce habitat fragmentation and protect species' populations from unsustainable exploitation. Wales' protected areas programme includes work to identify, protect and conserve SACs and SPAs as priority elements within the wider series of protected sites which includes National Nature Reserves, Sites of Special Scientific Interest, Marine Conservation Zones and other local wildlife areas.

#### **Natura 2000 Sites and Features in Wales**

There are 112 N2K sites in Wales, 92 Special Areas of Conservation and 20 Special Protection Areas. A full list of sites is shown in Appendix A.

There is a total of 123 different habitat and species features represented on the N2K sites, also listed in Appendix A.

The Habitats Directive identifies a list of natural habitat types (Annex I) of community interest whose conservation requires the designation of SACs. There are 54 Annex I habitat features on sites in Wales, which are found in a wide range of ecosystems. This reflects the diversity of landscape and ecosystems which exist in Wales from uplands to lowlands as well as marine and coastal habitats (which are particularly well represented.)

The Directive also identifies a list of species (Annex II) of most endangered, vulnerable and rare species which must be protected under the N2K network with the sites being managed in accordance with the ecological requirements of the species. There are 28 Annex II species features on sites in Wales, with examples from all the main taxon groups, although mammals and fish are most frequent.

The Birds Directive includes an Annex I list of birds which are rare, vulnerable or in danger of extinction as well as regularly occurring migratory species, for which suitable territories in number and size must be conserved as SPAs. Of the 41 listed species in Wales, 37 are water birds - breeding seabirds and wintering and passage waders and waterfowl. The remaining 4 species are upland raptors.

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<sup>1</sup> Habitats Directive: Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora; Birds Directive: Directive 2009/147/EC (previously directive 79/409/EEC) on the conservation of wild birds

### Summary of features types on Natura 2000 in Wales

Feature group	Feature category	No of features	Total
SAC features: Annex I habitats	Coastal sand dunes	5	54
	Forests/woodland	7	
	Freshwater habitats	6	
	Marine, coastal and halophytic habitats	11	
	Natural and semi-natural grassland formations	7	
	Raised bogs and mires and fens	9	
	Rocky habitats and caves	6	
	Temperate heath and scrub	3	
SAC features: Annex II species	Higher plant species	5	28
	Invertebrate species: arthropods	3	
	Invertebrate species: molluscs	4	
	Lower plant species	2	
	Vertebrate species: amphibians	1	
	Vertebrate species: fish	7	
	Vertebrate species: mammals	6	
SPA bird features	Estuarine	21	41
	Marine	8	
	Other coastal	8	
	Upland	4	
		<b>Total</b>	<b>123</b>

Under the Habitats Directive a sub-set of the Annex I habitats and Annex II species are listed as priority features for conservation action as they are considered to be particularly vulnerable, in rapid decline and mainly, or exclusively, found within the EU. There are 13 Habitats Directive priority habitats in Wales, for example, Blanket bog, Coastal lagoons and Petrifying springs. However, none of the Habitats Directive priority species are found in Wales.

For certain habitats and species listed in Annexes I and II, the UK holds a particularly high proportion of the European resource. As a result, the UK has a special responsibility to protect and manage them in favourable condition. There are 30 features identified as such in Wales, for example, Vegetated sea cliffs, Old sessile oak woods and otter and Marsh fritillary butterfly.

The Habitats Directive priority features and features for which the UK has a special responsibility are shown in Appendix A.

## A.2 Number and area of Natura 2000 sites

Sites of Community Importance (SCIs)	0
Reference to Commission Decisions on SCIs	<i>Link to Decisions at</i> <a href="http://ec.europa.eu/environment/nature/natura2000/sites_hab/biogeo_regions/index_en.htm">http://ec.europa.eu/environment/nature/natura2000/sites_hab/biogeo_regions/index_en.htm</a>
Special Areas of Conservation (SACs)	92 sites 628,557 ha within Wales Cross-border sites have additional area in England.
Special Protection Areas (SPAs)	20 262,237 ha within Wales Cross-border sites have additional area in England.
Total N2K terrestrial area in Wales	121,828 ha terrestrial SACs (approximately 6% of Welsh land area) 77,334 ha terrestrial SPAs (approximately 4% of Welsh land area)
Total N2K marine area Wales	506,728 ha marine SACs (approximately 32% of Welsh territorial waters) 187,704 ha marine SPAs (approximately 12% of Welsh territorial waters)
Total N2K area in Wales	890,794 ha in total, however, some areas are designated both SAC and SPA, therefore, taking account of these overlaps the figure is 717,943 ha or approximately 7% of Welsh land area and 36% of territorial waters.

The above sites are listed on the Joint Nature Conservation Committee website.

SACs: <http://jncc.defra.gov.uk/page-1458>

SPAs: <http://jncc.defra.gov.uk/page-1400>

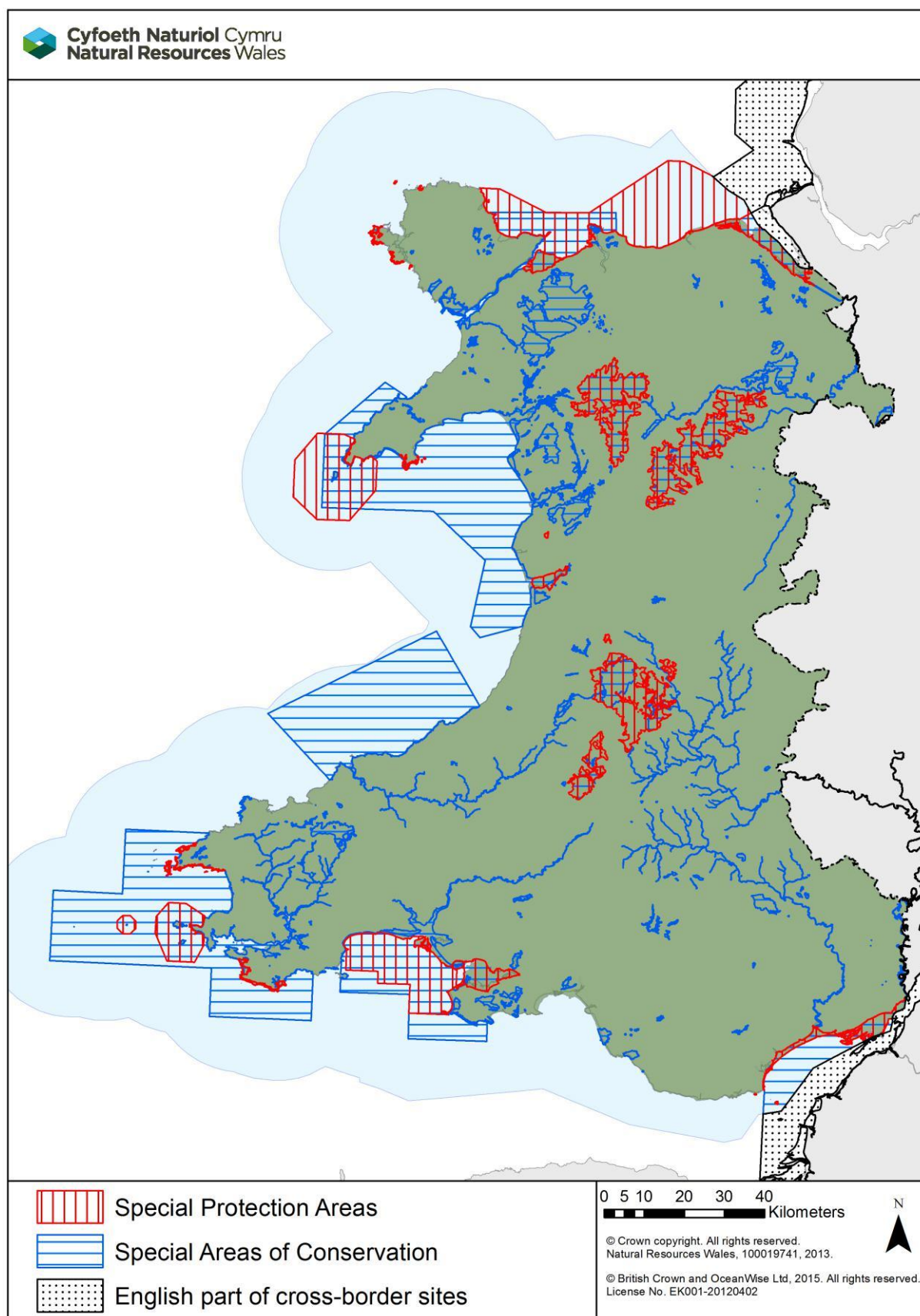
The key types of N2K site in Wales are as follows:-

- Coastal and island sites (12 SACs, 10 SPAs) incorporating coastal cliffs, sand dunes, shingle, breeding seabirds. Examples include Castlemartin Coast and Glannau Ynys Gybi.
- Marine and estuarine sites (7 SACs, 7 SPAs). Extensive marine sites with intertidal and subtidal habitats, marine mammals, saltmarsh, seabirds and wintering waders. Sites include Pen Llyn a'r Sarnau, and the Severn Estuary.
- Major river systems (8 SACs). Large linear sites supporting riverine habitat and Otter, White-clawed crayfish and fish species including Atlantic salmon. Examples include Afon Teifi and the River Wye.
- Uplands (8 SACs and 3 SPAs). Large, landscape-scale sites with blanket bog, heath, alpine and rocky habitats, lakes, wetland and raptors. Such as Eryri, Migneint-Arenig-Dduallt and Cadair Idris.
- Ancient woodlands and bat sites (25 SACs) which together support seven types of woodland habitat, such as Western acidic oak woodland, and three species of bat. Examples of sites include Coedydd Nedd a Mellte, and Usk Bat Sites.

- Wetlands (11 SACs). Predominantly lowland sites with fens, mires and bogs and associated species such as Southern damselfly. For example, Cors Caron and Corsydd Mon.
- Standing water (10 SACs). Lowland lakes, canal, turlough and Great crested newt ponds, in places such as Llangorse Lake, and Johnstown Newt Sites.
- Grassland, habitat mosaic and Marsh fritillary sites (12 SACs). For example, Halkyn Mountain and Caeau Mynydd Mawr.



**Figure 1. Overview map of the Natura 2000 site series in Wales**

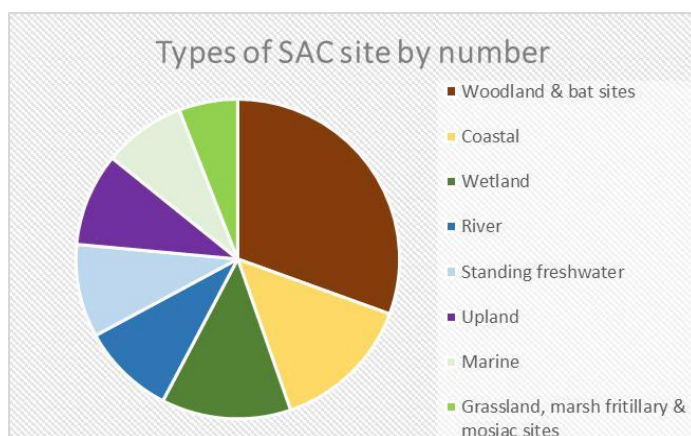


### A.3 Main land use cover and ecosystem categories for Natura 2000 sites

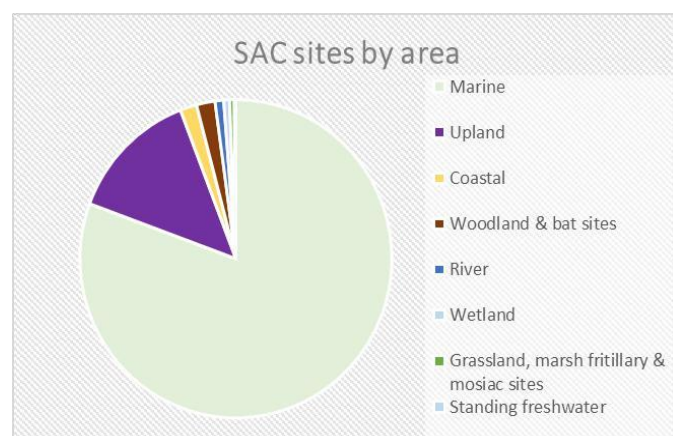
#### Special Areas of Conservation

The SACs in Wales fall into one of eight broad ecosystem types representing the dominant habitat and species features for which the site was primarily designated. Other SAC features also occur within the sites.

The types of site are shown below:



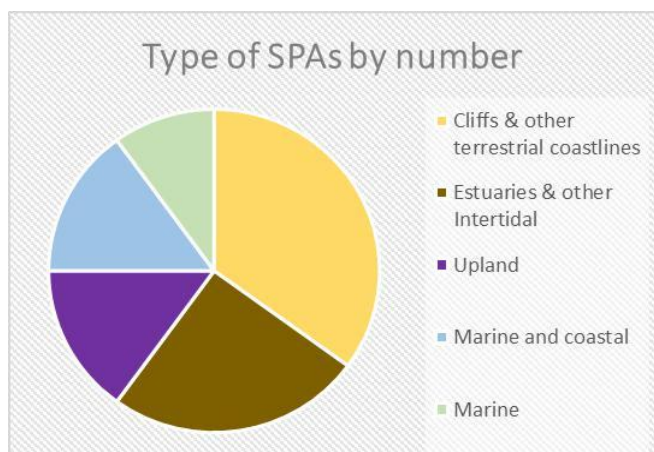
Total number 92



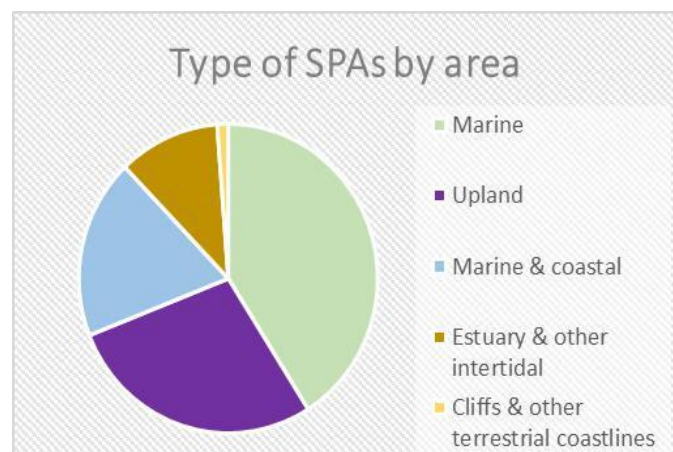
Total area 628,557 ha

#### Special Protection Areas

The SPAs can be classified into five main groups, as shown below.



Total number 20



Total area 262,237 ha

## **B. Status of the Habitats and Species**

### **B.1 Most recent assessment of conservation status of species and habitat types for Wales**

In the UK the conservation status of Annex I habitats and Annex II species is assessed and reported under Article 17 of the Habitats Directive.

This can be seen at <http://jncc.defra.gov.uk/page-6387>

#### *B.1.a Habitats and species of Habitats Directive*

In Wales, to date, the condition of SAC features has been monitored on individual sites, as part of a 6-year rolling programme using the Common Standards Monitoring regime. This is a systematic approach which employs standardised methods in which the condition of a feature is assessed against a set of predefined attributes and associated targets linked to conservation objectives and laid out in the Core Management Plans.

The condition assessment records a feature on a site as one of the following:

- **Favourable:** the feature is in a healthy state and meets conservation objectives; this classification includes sub-classifications – Favourable maintained, Favourable recovered and Favourable unclassified.
- **Unfavourable recovering:** the conservation objectives for the feature are not currently met but the condition of the feature has improved since it was last assessed and it is expected that it will continue to do so, however, favourable condition may take many years to achieve.
- **Unfavourable:** the conservation objectives for the feature are not being met and there has been no improvement since the last assessment. It includes Unfavourable declining, Unfavourable no-change and Unfavourable unclassified.
- **Destroyed (partly or completely):** the feature is no longer present and there is no prospect of being able to restore it.

The first round of SAC condition assessments were carried out between January 2001 and December 2006. The second round of monitoring took place between 2007 and 2012 and the third round is currently underway and due to finish in 2018. The assessments inform the UK Article 17 reporting.

There are up-to-date condition assessments (undertaken within the last two reporting periods) for the majority of terrestrial and freshwater Habitats Directive features. Assessments for marine features are older but are in the process of being updated based on evidence which has already been collected.

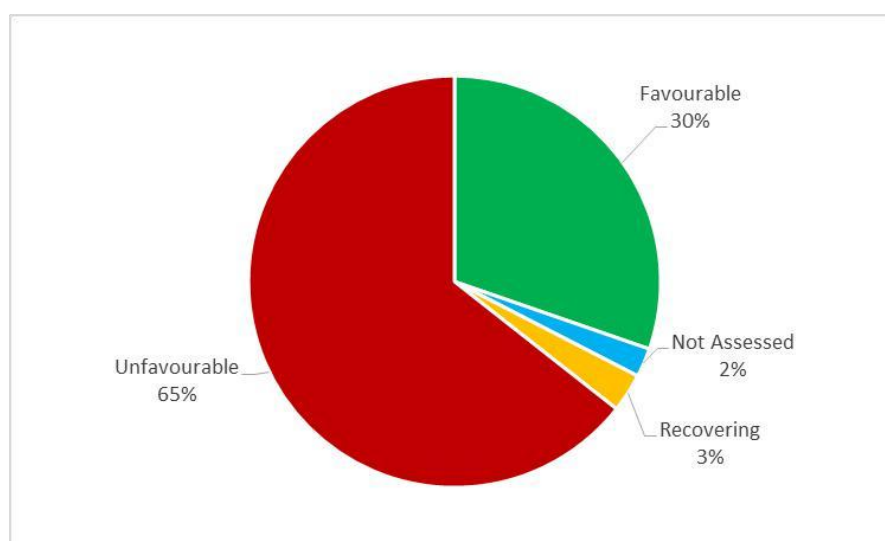
#### **Condition of Annex II species features in Wales<sup>2</sup>**

33% of Annex II species (where they occur on N2K sites) are recorded as being in favourable or recovering condition, but two thirds are in unfavourable condition. There is large variation between species groups. For example, while both species of marine mammal (Grey seal and Bottlenose dolphin) are in favourable condition on all sites where they are designated, fish species are only in favourable condition in 10% of occurrences on sites.

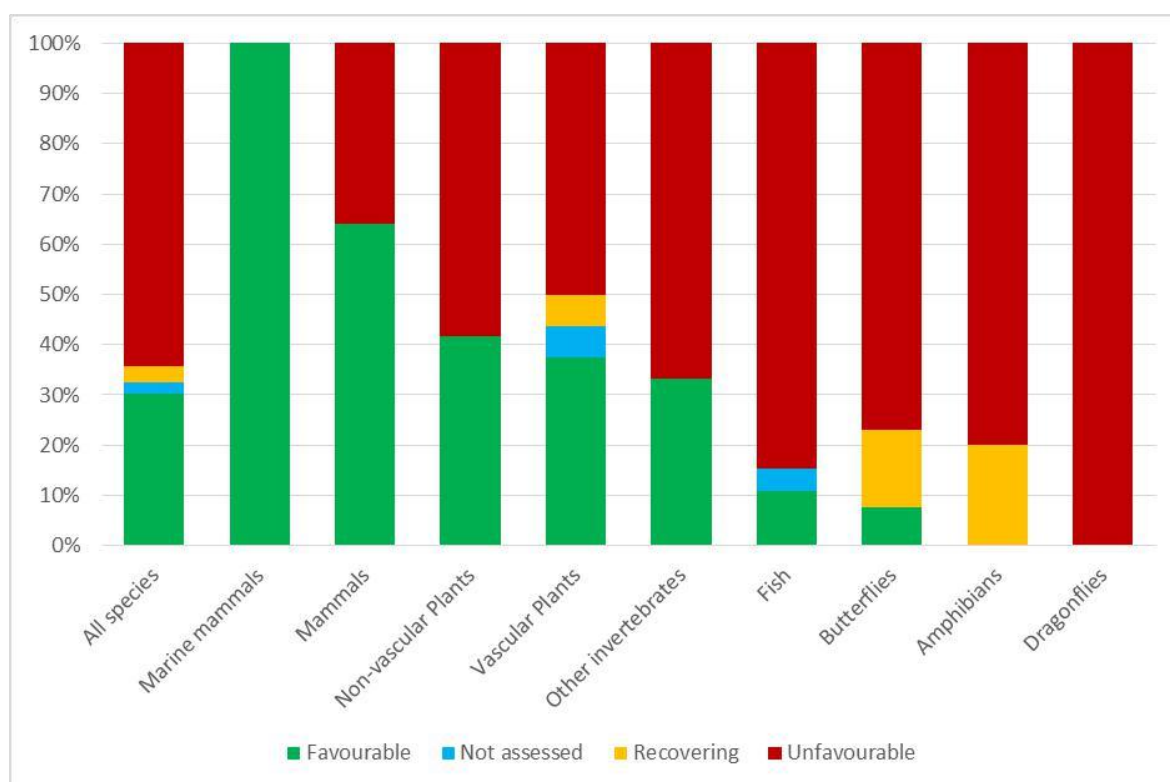
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<sup>2</sup> Source: WES Measure 025: Species and habitats in favourable, recovering or unfavourable conditions, July 2013. Unpublished document, Countryside Council for Wales/Natural Resources Wales. Based on N2K Common Standards Monitoring data.

### Condition of Annex II species features on SACs in Wales



### Condition of Annex II species features on SACs in Wales by taxon group

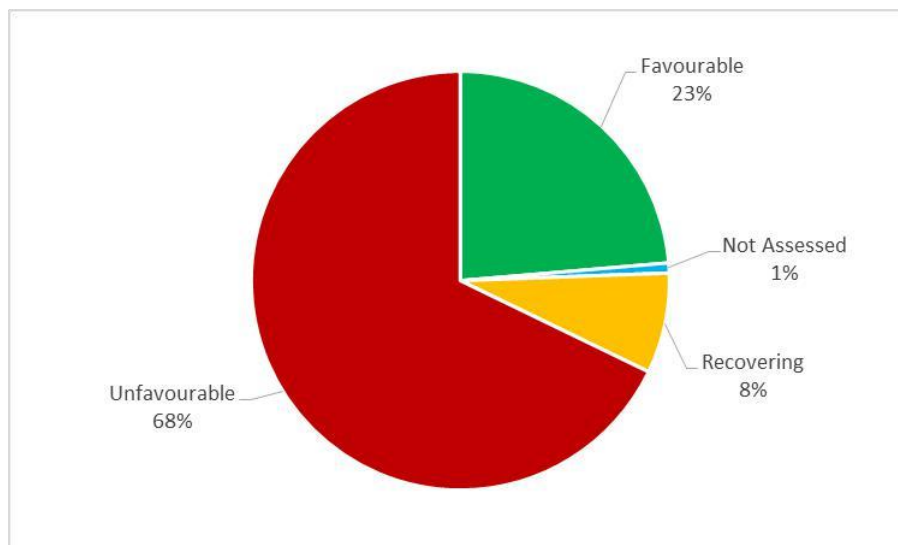


### Condition of Annex I Habitat features in Wales

31% of habitat features (where they occur on N2K sites) are recorded as being in favourable or recovering condition. While the majority of caves, sea caves and reefs features are in favourable condition, less than 20% of occurrences of lowland heathland, grassland and wetland features within sites are currently in favourable condition.

However, it must be noted that due to the sometimes slow pace of ecological change, even where appropriate management measures are in place or restoration has occurred, it may take years or decades before the habitat responds and reaches favourable condition.

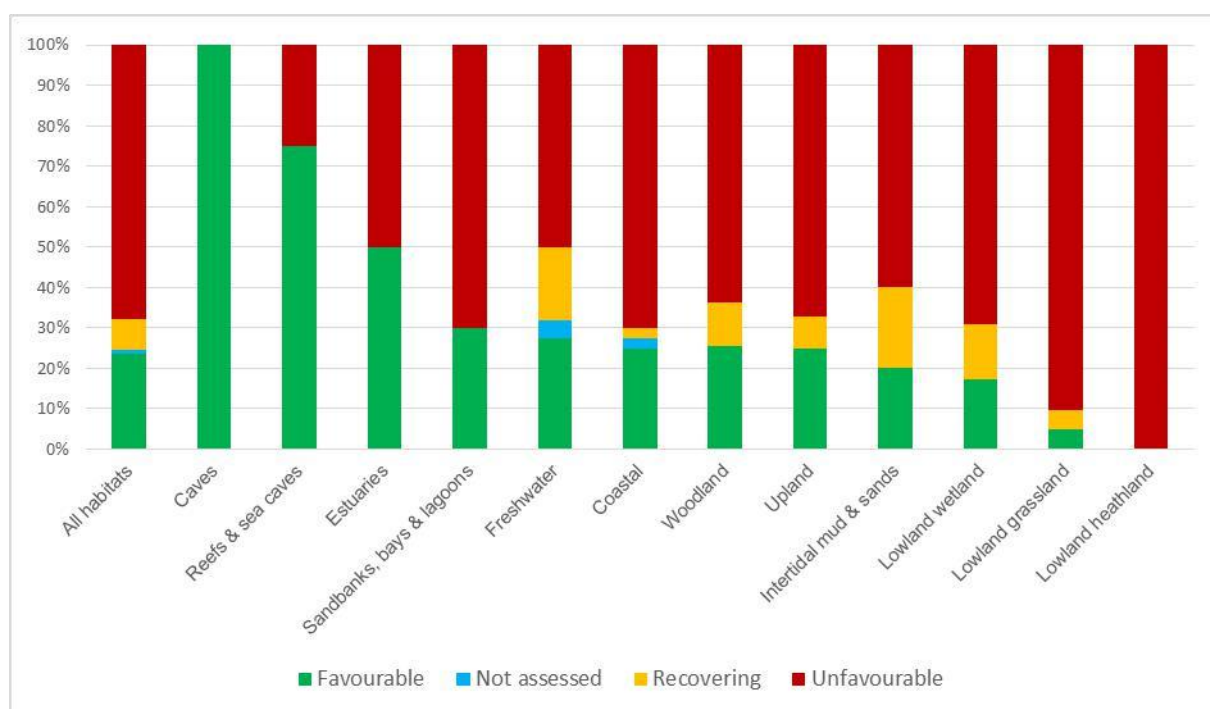
### Condition of Annex I habitat features on SACs in Wales



NB. Figures relate to the number of instances on the feature on sites not to area of habitat.



### Condition of Annex I habitats in Wales by habitat type



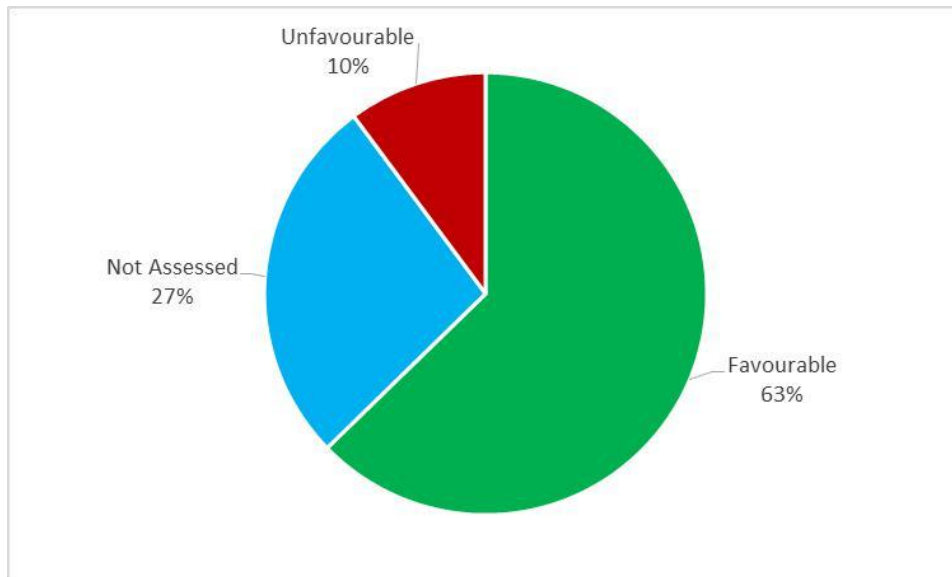
#### *B.1.b Bird species of Birds Directive*

### Condition Assessment of SPA features in Wales

Condition assessments for the majority of birds date from 2004<sup>3</sup>. The majority of the bird features on SPAs are in favourable condition, however due to the age of the data, confidence in its accuracy is relatively low. The proportion of bird features assessed is significantly lower than for SAC features.

<sup>3</sup> A preliminary assessment of the condition of bird features within Welsh Special Protection Areas, A.J. Young and R.I. Thorpe, Countryside Council for Wales, Environmental Monitoring Report No22.

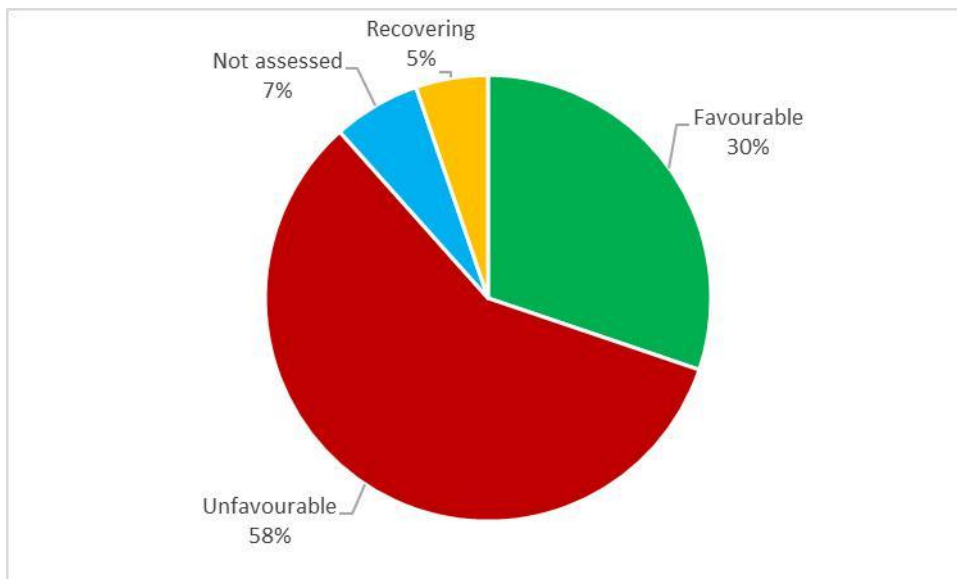
## Condition of Annex I and regularly occurring migratory bird features on SPAs in Wales



### B.2 Overall assessment of condition

An overview of all features indicates that around one third are in favourable or recovering condition.

#### Condition of all features on N2K sites in Wales



### B.3 Overview of pressures and threats to species and habitats

Pressures and threats (issues and risks)<sup>4</sup> deemed to have (or the potential to have) an adverse impact on one or more N2K features, have been recorded for all N2K sites in Wales, either at a whole site level or at a more detailed management unit<sup>5</sup> level. This information was collated by the LIFE Natura 2000 Programme for Wales during 2014-15, based on information provided by Wales's statutory nature conservation advisor Natural Resources Wales (NRW) and partner organisations, as part of the process to create Prioritised Improvement Plans for all N2K sites. The data is held within the NRW Actions Database.

The most dominant pressures and threats identified across the N2K series include inappropriate grazing type and levels, invasive species and disease, changes to hydraulic conditions, access and recreation, air pollution, water pollution, climate change, habitat fragmentation, marine fisheries, marine litter and flood and coastal erosion risk management.

#### Overview of all pressures and threats to N2K features in Wales

PAF Category	Total		SAC Habitats		SAC Species		SPA Birds	
	Pressures	Threats	Pressures	Threats	Pressures	Threats	Pressures	Threats
Agriculture, forestry	1516	103	1298	78	408	42	79	17
Biotic and abiotic processes (including climate change & invasive species)	357	109	310	88	64	49	18	5
Fishing, hunting & collecting	45	11	31	9	20	5	5	1
Human induced changes in wetlands & marine environments	360	11	291	10	136	6	3	0
Leisure & tourism (other than above)	148	37	112	32	42	19	7	4
Mining & extraction of materials	14	2	11	2	6	0	0	0
Other	32	13	3	3	28	8	1	5
Pollution & other human impacts/activities	253	45	219	44	127	23	9	8
Transportation & communication	2	1	2	0	0	0	0	1
Urbanisation, industrialisation & other similar activities	13	18	10	16	8	8	1	2

*Figures refer to number of instances a pressure or threat was recorded for a N2K site in Wales, either at the level of a whole site or a management unit.*

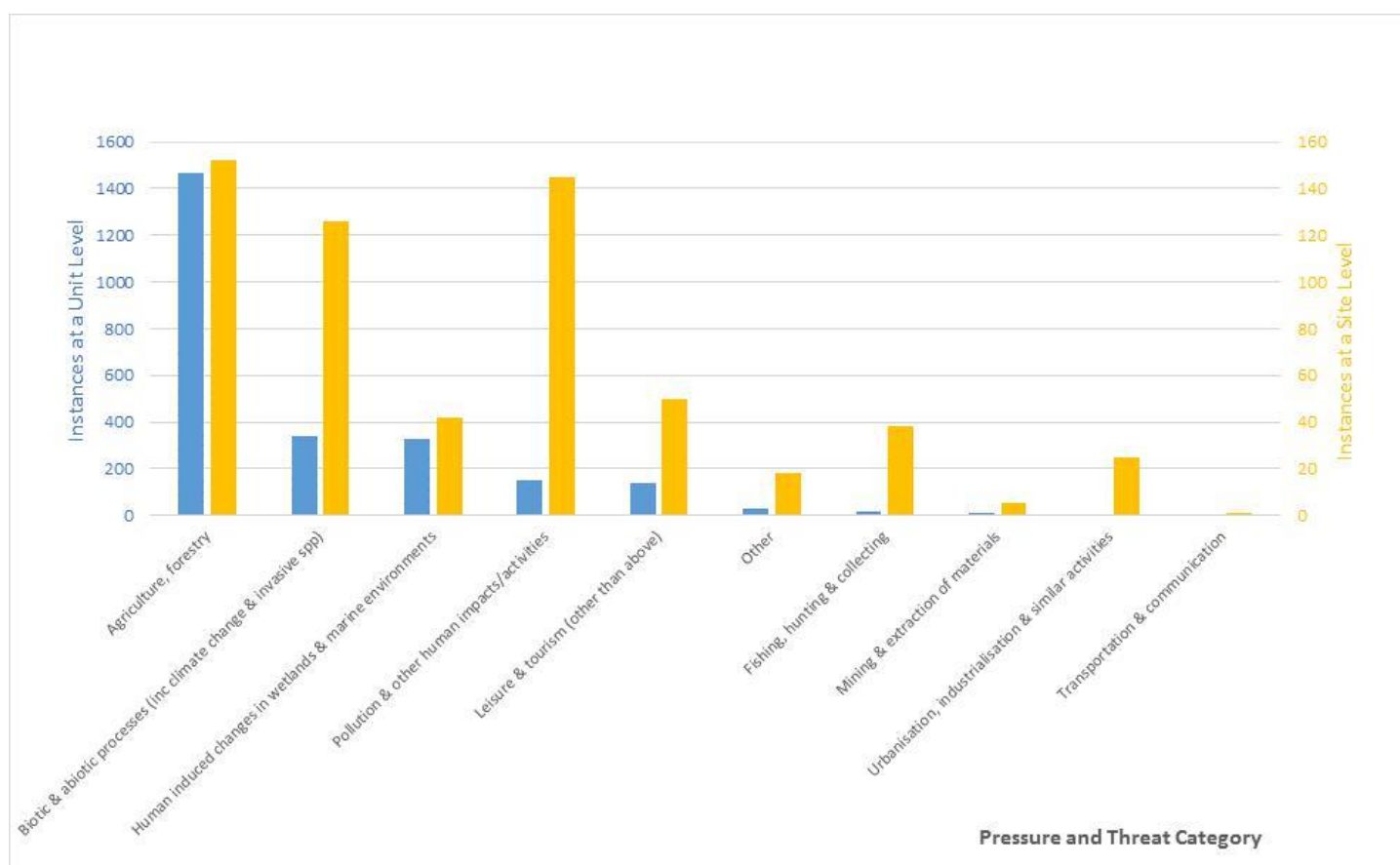
*Data from September 2015*

<sup>4</sup> A pressure or issue is an adverse impact currently affecting an N2K feature on a site. A threat or risk is an adverse impact likely to affect an N2K feature on a site by 2020.

<sup>5</sup> All Natura 2000 sites in Wales are divided geographically into management units based on landownership or ecological differences to facilitate the implementation of management measures.



## Major pressure and threat categories by frequency of occurrence



*Pressures and threats are combined in this chart.*

## **C. LEGAL AND ADMINISTRATIVE PROVISIONS FOR THE PROTECTION AND MANAGEMENT OF THE NATURA 2000 SITES**

### **C.1 Relevant legal provisions and policy framework**

#### **a) Summary**

In Wales, a suite of legal provisions, policies and procedures are in place for:-

- i) Designating N2K sites as required by the Habitats and Birds Directives;
- ii) Establishment of management plans and conservation objectives for terrestrial and freshwater N2K sites by NRW, the statutory nature conservation body in Wales;
- iii) Requiring appropriate assessment of plans and projects likely to have significant effect on the habitats and species for which N2K sites are designated;
- iv) Preventing damage and significant disturbance. In particular, terrestrial N2K sites are also designated as Sites of Special Scientific Interest (SSSI) to provide protection under UK domestic legislation;
- v) Facilitating management and restoration, for example, by enabling NRW to make management agreements with private landowners for the management of land in N2K sites, and by placing a duty on every public authority, in exercising its functions, to have regard to conservation of biodiversity.
- vi) Monitoring and reporting on the conservation status of N2K habitats and species.

#### **b) New developments in the legislative and policy framework**

The Welsh Government is currently developing a more integrated approach to the management of our natural resources based on a legislative framework for their sustainable management. This includes:

- **Environment (Wales) Bill** which puts the ecosystem approach on a statutory basis, enshrining in law the key principles of building resilience, managing for multiple benefits, adaptive management, long termism, working from a firm evidence base, collaboration and co-operation, and working at the right scale.

The Bill introduces a number of mechanisms and tools to help achieve sustainable management of natural resources, and lays out a delivery framework through the publication and review of the National Natural Resources Policy and Nature Recovery Plan and Area Statements (see section C.3 below.)

The Bill also introduces an enhanced biodiversity and resilience of ecosystems duty. It will apply to public authorities in Wales, requiring that they place biodiversity as an ‘integral part of policy and decision making’ and report upon actions taken to improve biodiversity and resilience of ecosystems as well as incorporating biodiversity into other areas of policy, strategy and initiatives.

The Bill also requires that NRW produce the State of Natural Resources Report (SoNaRR) which will report on the status of Wales’ natural resources and track the progress being made towards sustainable management.

- **Well-being of Future Generations (Wales) Act 2015** which aims to improve the social, economic, environmental and cultural well-being of Wales. There are seven goals, including a ‘resilient Wales’ which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (e.g. climate change). The Act establishes Public Service Boards, which will prepare local well-being assessments.

- **Planning (Wales) Act 2015** which aims to create an efficient process to ensure the right development is located in the right place. Planning policy provides for a presumption in favour of sustainable development to ensure that decision-makers balance and integrate social, economic and environmental issues at the same time when taking decision on individual planning applications. The Act introduces the requirement for a National Development Framework, and the designation of strategic planning areas and strategic development plans.

### c) Existing Relevant Legislation

The **Wildlife and Countryside Act 1981** and **Countryside and Rights of Way Act 2000** and subsequent amendments make provisions for the protection and management of Sites of Special Scientific Interest (SSSIs) which underpin all terrestrial and intertidal N2K sites. This legislation provides protection against operations likely to damage the special interest of the site caused by owners, occupiers or third parties.

- Wildlife & Countryside Act: <http://www.legislation.gov.uk/ukpga/1981/69/contents>
- Countryside & Rights of Way Act <http://www.legislation.gov.uk/ukpga/2000/37/contents>

The **Conservation of Habitats and Species Regulations 2010** and subsequent amendment, are the principal transposing legislation for the Habitats and Birds Directive in Wales. The Habitats Regulations place a range of powers and duties on NRW and other public bodies and apply in the terrestrial environment and in territorial waters out to 12 nautical miles. Proposals for plans and projects likely to have a significant effect on a N2K site require an appropriate assessment. Permission is not normally granted if the proposal will adversely affect the integrity of the site, unless there are imperative reasons of overriding public interest. Amendments to the Regulations in 2012 introduced additional duties on appropriate and competent authorities in relation to wild bird habitat.

The **Offshore Marine Conservation (Natural Habitats &c) Regulations 2007** and subsequent amendments transpose the Directives in UK offshore waters.

### Other relevant legislation includes:

- **Natural Environment and Rural Communities Act 2006** – particularly Section 42 which requires the creation and enactment of measures relating to lists of habitats and species of principal importance in Wales <http://www.legislation.gov.uk/ukpga/2006/16/contents>
- The **Water Environment (Water Framework Directive) (England and Wales) Regulations 2003** <http://www.legislation.gov.uk/uksi/2003/3242/contents/made> which transpose the **Water Framework Directive** [http://ec.europa.eu/environment/water/water-framework/index\\_en.html](http://ec.europa.eu/environment/water/water-framework/index_en.html)
- The **Marine Strategy Regulations 2010** <http://www.legislation.gov.uk/uksi/2010/1627/contents/made> transpose the **Marine Strategy Framework Directive** which aims to achieve Good Environmental Status (GES) of the EU's marine waters by 2020. [http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index\\_en.htm](http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm)

- **Marine and Coastal Access Act 2009** which provides the legal mechanism to help ensure clean, healthy, safe, productive and biologically diverse oceans and seas by putting in place a new system for improved management and protection of the marine and coastal environment, including for example, marine planning, marine conservation zones, marine licensing procedures and new fisheries management powers.

<http://www.legislation.gov.uk/ukpga/2009/23/contents>

A key requirement of the act is the preparation and updating of **Wales National Marine Plan** which lays out the context of the ecosystem approach for Wales' marine area.

<http://gov.wales/topics/environmentcountryside/marineandfisheries/marine/marine-planning/?lang=en>

- **Town and Country Planning (Local Development Plan) (Wales) Regulations 2005**

<http://www.legislation.gov.uk/wsi/2005/2839/contents/made>

- **Salmon and Freshwater Fisheries Act 1975**

<http://www.legislation.gov.uk/ukpga/1975/51/contents>

- **Conservation of Seals Act 1970**

<http://www.legislation.gov.uk/ukpga/1970/30>

#### **d) Current Partnership Mechanisms**

For five of the marine SACs, Relevant Authorities with local powers or functions which impact upon European marine sites (as defined by the Habitats Regulations), have formed relevant authority groups (RAGs) to produce, maintain and implement Management Schemes. There are RAGs for:

- Cardigan Bay/ Bae Ceredigion SAC
- Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC
- Pembrokeshire Marine / Sir Benfro Forol SAC
- Pen Llyn a'r Sarnau / Llyn Peninsula and The Sarnau SAC
- Severn Estuary / Môr Hafren SAC

#### **e) Current Contractual Mechanisms**

Section 15 Countryside Act 1968 (as amended) enables NRW to enter into contractual management agreements with SSSI landowners or occupiers, whereby the owner/occupier agrees to manage the land according to defined management prescriptions in return for payment.

Countryside Act: <http://www.legislation.gov.uk/ukpga/1968/41/contents>

In addition, under Regulation 16 of the Conservation of Habitats & Species Regulations 2010 (as amended) NRW may enter into management agreements with the owners or occupiers of land within or adjacent to N2K sites, for the purpose of managing that land for the benefit of N2K habitats and species.

Under Section 132 of the Environmental Protection Act 1990 (as amended), NRW can buy or lease land for a range of purposes, including for the establishment and management of nature reserves.

Article 28 (1) of EC Regulation 1305/2013 on rural development by the European Agricultural Fund for Rural Development (EAFRD) enables the Welsh Government to establish a voluntary scheme for agri-environment and climate measures as part of the Rural Development Plan, to

provide payment to ensure natural resources are managed sustainably. In Wales the scheme is known as Glastir and is aimed at combating climate change; improving water management; and maintaining and enhancing biodiversity.

#### **f) Protection of species**

The **Habitats Regulations 2010** also protect animal and plant species that are listed on Annex IV of the Habitats Directive and that have a natural range in Great Britain. Such species are called 'European Protected Species' (EPS) under the Habitats Regulations. Many EPS are also designated features of N2K sites. It is an offence under the Habitats Regulations to, for example, capture, injure or kill a wild animal of an EPS or damage its breeding site or resting place. It is also an offence to, for example, pick, collect or uproot a wild plant of an EPS or sell or exchange such a plant. NRW may grant licences which allow certain activities, for specific purposes only, which would otherwise be offences under the legislation.

Possession and sale of EPS and UK protected species is illegal. NRW can grant licences for appropriate purposes.

The **Wildlife and Countryside Act 1981 (as amended)**, implements the Birds Directive and protects all wild birds, their nests and their eggs. Additional protection is given to rare birds listed on Schedule 1 of the 1981 Act from disturbance at their nests and from disturbance of their dependant young. NRW issues licences for specific purposes, such as scientific, conservation or safety purposes, so that legitimate work may be undertaken.

<https://naturalresources.wales/apply-for-a-permit/protected-species-licensing/?lang=en>

## C.2 Progress and perspectives for management planning for the sites

### Progress in establishing conservation objectives

Progress in establishing conservation objectives	<p><b>Coverage of Management Plans</b></p> <p>Management plans for protected sites are a key management tool in Wales. All terrestrial SACs and SPAs have a Core Management Plan in place.<sup>6</sup></p> <p>All marine SACs and SPAs have a Regulation 35 document in place which is NRW's advice on what activities may cause damage or disturbance to the special features. This is a revised package of advice issued under Regulation 35 (formerly Regulation 33) of the Habitats Regulations.</p> <p>In addition there are Management Schemes prepared by Relevant Authority Groups, as indicated under Regulation 36 for the following European Marine Sites:-</p> <ul style="list-style-type: none"><li>• Cardigan Bay/ Bae Ceredigion SAC</li><li>• Pembrokeshire Marine / Sir Benfro Forol SAC</li><li>• Pen Llyn a'r Sarnau / Llyn Peninsula and The Sarnau SAC</li><li>• Severn Estuary / Môr Hafren SAC</li><li>• Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC</li></ul> <p><b>Conservation Objectives</b></p> <p>The Core Management Plans and Regulation 35 documents include site-level <b>conservation objectives</b> for all designated species and habitat features, based on the Habitats Directive concept of 'favourable conservation status' which defines the desired state of habitats and species at a site level.<sup>7</sup> Associated Performance Indicators are also available for all N2K features.</p> <p>The Core Management Plans also set out the conservation measures required to achieve the conservation objectives, to restore or maintain features at favourable condition on the sites. The plans also include the results of monitoring.</p> <p><b>Standards</b></p> <p>All N2K plans are completed according to agreed guidance and to a standard template to ensure high quality content and a consistency of format and layout.</p> <p>All sites have been divided into management units, based on, for example, land ownership or ecological boundaries. This allows often large sites to be broken down into smaller, coherent blocks to aid understanding and delivery.</p> <p>There is an ongoing rolling programme to review and update the</p>
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<sup>6</sup> In some cases where designations overlap, one document covers two or more designations.

<sup>7</sup> This approach is a matter of practical implementation. It does not imply that Favourable Conservation Status as defined in the Habitats Directive constitutes a statutory obligation at the individual site level.

	<p>Core Management Plans. At each review any new information is incorporated. The objective is for management plans to be reviewed at least once every six years.</p> <p><b>Action Plans</b></p> <p>The conservation framework laid out in the Core Management Plans and Regulation 35 documents is supplemented by a more detailed Prioritised Improvement Plan (PIP). PIPs are in place for all N2K sites.<sup>8</sup> The PIP summarises the key issues and risks (pressures and threats) affecting the designated features, and the priority actions which are needed to address them. They also indicate total costs, responsible organisations and funding sources.</p> <p>The PIPs are ‘live’ documents which are drawn from the NRW Actions Database. They have been produced as part of the LIFE funded Natura 2000 Programme for Wales.</p> <p><b>Actions Database</b></p> <p>The Actions Database is a planning tool which holds and manages data on actions for all protected sites. An ‘action’ is comprised of: the relevant issue/risk to be addressed; a mechanism; activity; responsible organization; priority; cost and timetable for delivery. Importantly, it is a collaborative tool which allows partners to contribute to the development of actions and report on progress.</p> <p>Data for all N2K sites has been updated and expanded during 2014/5 as part of the LIFE Natura 2000 Programme.</p> <p>The Actions Database can be used to analyse pressures and mechanisms to give an overview of the actions needed, create baselines for meeting targets, assess resource needs, analyse issues across Wales, and more easily integrate the actions with other programmes of work.</p> <p>It is important to note that, at present, the database only contains new actions needed to address outstanding pressures and threats. There is a great deal of action already taking place, not included in the database, that is maintaining the condition of special features of sites.</p> <p><b>Special Sites Programme</b></p> <p>The Special Sites Programme is an ongoing programme of work within NRW which oversees the updating of plans and actions and reports on progress.</p>
% of sites with plans completed	96
% of sites with plans in preparation	0

<sup>8</sup> In some cases where designations overlap we have provided one document covering two or more designations.



% of sites with no plans	4
Link to web sites with plans & any guidelines	<p><b>Natura 2000 Core Management Plans and map(s)</b>  <a href="https://naturalresources.wales/conservation-biodiversity-and-wildlife/find-protected-areas-of-land-and-seas/designated-sites-search/?lang=en">https://naturalresources.wales/conservation-biodiversity-and-wildlife/find-protected-areas-of-land-and-seas/designated-sites-search/?lang=en</a></p> <p>NRW Management Planning Guidance and management plan template is available.</p> <p><b>NRW Regulation 35 advice for marine Natura 2000 sites</b>  <a href="http://naturalresources.wales/conservation-biodiversity-and-wildlife/find-protected-areas-of-land-and-seas/advice-for-developers-and-marine-planners/?lang=en">http://naturalresources.wales/conservation-biodiversity-and-wildlife/find-protected-areas-of-land-and-seas/advice-for-developers-and-marine-planners/?lang=en</a></p> <p><b>Regulation 36 European Marine Site Management Schemes</b>  Pen Llyn a'r Sarnau Management Scheme  <a href="http://penllynarsarnau.co.uk/sac_publications.aspx">http://penllynarsarnau.co.uk/sac_publications.aspx</a></p> <p>Cardigan Bay Management Scheme  <a href="http://www.cardiganbaysac.org.uk/?page_id=96">http://www.cardiganbaysac.org.uk/?page_id=96</a></p> <p>Pembrokeshire Marine Management Scheme  <a href="http://www.pembrokeshiremarinesac.org.uk/english/manage/plans.htm">http://www.pembrokeshiremarinesac.org.uk/english/manage/plans.htm</a></p> <p>Carmarthen Bay &amp; Estuaries Management Scheme  <a href="http://english.cbeems.org/management/management-scheme/">http://english.cbeems.org/management/management-scheme/</a></p> <p>Severn Estuary Management Scheme  <a href="http://www.severnestuary.net/asera/management.html">http://www.severnestuary.net/asera/management.html</a></p>
More background information on plans and comment on other instruments/approaches for management planning, information on and plans for particular sectors (e.g. forestry etc.)	<p>For further information on the <b>Special Sites Programme</b> please see: <i>An overview of the management needs of Special Sites in Wales, Special Sites Project, Countryside Council for Wales, 2011</i></p> <p><b>Forest Resource Plans</b>  Forest Resource Plans, prepared by NRW, are core management documents used on the Welsh Government's Woodland Estate. The Plans lay out proposals for the future management of a woodland in accordance with current policy and practice. These plans are far reaching, with a strong emphasis on delivering social, economic and environmental benefits, incorporating the ecosystem approach to land management.</p> <p><b>National Nature Reserve Management Plans</b>  National Nature Reserves many of which are N2K sites, are managed according to detailed management plans.</p>



### **C.3 Relevant government and non-governmental plans**

#### **Plans and initiatives for conservation and recovery of habitats and species or strengthening the coherence of the Natura network.**

Whilst all of the plans described below have a potential to influence the conservation, recovery and strengthening of the N2K network, the extent to which they do so varies considerably as they are not focussed solely on N2K sites.

#### **Strategic Plans**

The Environment (Wales) Bill will introduce the following policies, plans and documents (subject to the Environment Bill receiving Royal Assent).

**National Natural Resources Policy (NNRP)** – due to be published in spring 2017. The NNRP provides a framework for land-based natural resources policies and plans, setting out priorities and opportunities for sustainable management of natural resources at a national level, for a five year period. The NNRP will outline how this will provide benefits to society and the economy as well as the environment to support goals set out in the Well-being of Future Generations Act.

**Area Statements** – Priorities identified in the National Policy will be delivered at a local level through Areas Statements produced by NRW. The Statements will identify opportunities for different bodies to collaborate in the delivery of sustainable management of natural resources. Public Service Boards will be required to take account of Areas Statements in local well-being assessments.

**Nature Recovery Plan for Wales** – will be the national biodiversity strategy and action plan for Wales. The ambition is to reverse the decline in biodiversity and ensure lasting benefits to society by building the resilience of ecosystems. The Nature Recovery Plan will be comprised of a strategic Position Statement, setting out biodiversity commitments, resource and policy, and clarify the relationship with other Welsh Government policies and programmes and the Aichi targets. An Action Plan, programming priority actions for reversing the loss of biodiversity and nature recovery, will form the delivery part of the NRP.

#### **Planning Policy Wales**

Planning Policy Wales is the Welsh Government's land use planning policy for Wales. Every local planning authority has a statutory duty to prepare a Local Development Plan, which guides development of the local area, within the framework set by national planning policy in Planning Policy Wales. <http://gov.wales/topics/planning/policy/ppw/?lang=en>

#### **Shoreline Management Plans**

Revised Shoreline Management Plans (SMP2) for Wales were adopted in 2014. SMP policy describes how a stretch of shoreline is most likely to be managed to address flood and/or erosion and indicates agreed management for given units; that is, no active intervention, hold the (existing defence) line, managed realignment or advance the line.

North West England and North Wales SMP2:

[http://www.allerdale.gov.uk/downloads/nw\\_shoreline\\_management\\_plan\\_2.pdf](http://www.allerdale.gov.uk/downloads/nw_shoreline_management_plan_2.pdf)

West of Wales SMP2: <http://www.westofwalesmp.org/>

South Wales SMP2: <http://www.southwalescoast.co.uk/>

Severn Estuary SMP2: <http://www.severnestuary.net/secg/smpr.html>

#### **Welsh National Marine Plan**

The Welsh Government is responsible for Marine Planning in Wales and is developing a Welsh National Marine Plan (WNMP) that covers Welsh inshore and offshore waters. The

WNMP will take a 20 year outlook and will guide the sustainable management of marine activities. It will provide important information and guidance to those who wish to use or undertake development in the marine area and for decision makers.

<http://gov.wales/topics/environmentcountryside/marineandfisheries/marine/marine-planning/?lang=en>

**Water Framework Directive River Basin Management Plans (RBMP) Cycle 2** – to be published December 2015

Western Wales and Dee RBMP: Consultation documents and results

<https://naturalresources.wales/about-us/consultations/our-own-consultations-closed/?lang=en>

Link to location of submitted and final plans (when published)

<https://naturalresources.wales/water/quality/improving-water-quality/?lang=en>

Severn RBMP

<https://www.gov.uk/government/publications/river-basin-management-plan-severn-river-basin-district>

### **Woodlands for Wales**

Welsh Government's national forest strategy.

<http://gov.wales/topics/environmentcountryside/forestry/our-strategy/?lang=en>

### **Climate Change Strategy for Wales, Welsh Government**

Including the refresh statement and annual report

<http://gov.wales/topics/environmentcountryside/climatechange/publications/strategy/?lang=en>

### **Code of Good Agricultural Practice for the Protection of Soil, Water and Air for Wales 2011, Welsh Government**

<http://gov.wales/topics/environmentcountryside/farmingandcountryside/farming/codesofgoodagri-practice/?lang=en>

### **Welsh Wildlife Crime Strategy, Wales Biodiversity Partnership**

<http://www.biodiversitywales.org.uk/Wildlife-Crime>

### **GB Framework Strategy for Invasive Non-native Species**

<http://www.nonnativespecies.org/index.cfm?sectionid=108>

Further details of relevant policy and plans can be found in the LIFE Natura 2000 Programme Thematic Action Plans.

### **Initiatives and projects**

A number of major initiatives and projects are being undertaken or have recently been completed which directly or indirectly deliver management and restoration of the N2K series in Wales. These are detailed in Section D, under the relevant funding heading.

In some cases, the primary objective of the project is to improve the condition of specific N2K sites or features. However, it is more common that N2K benefits are delivered as a part of projects which have broader biodiversity or environmental and socio-economic aims. While the natural resources management (ecosystem) approach supports this type of integration, there is a risk that N2K needs are not always clearly identified and prioritised.

## **D CURRENT EXPERIENCE WITH USE OF EU FINANCIAL INSTRUMENTS**

### **D1 European Agricultural Fund for Rural Development (EAFRD)**

Below is a summary of allocations under relevant provisions of the Rural Development Fund for Natura 2000 management, (as well as other relevant national/regional financing)

<b>Fund</b>	<b>Provision</b>	<b>Level of Use*</b>
Whilst there is no specific allocation for N2K measures in the Wales RDP there are several sub measures which specifically mention N2K sites (and some which also mention the PAF).		
EAFRD RDP		
Measure 1 (Art14) Knowledge Transfer and Information Actions	Sub-measure 1.2 support for demonstration activities and information actions.	Current use: Minor use Potential use: This sub-measure could be used for financing demonstration activities and information action in relation to the management of N2K sites in coherence with the PAF.
	Sub-measure 1.3 support for short term farm and forest management exchange as well as farm and forest visits.	Current use: Minor use Potential use: This sub-measure could be used for financing farm and forest management exchange and farm and forest visits in relation to the management of N2K sites in coherence with the PAF.
Measure 7 (Art 20) Basic services and village renewal in rural areas	Measure 7.1 support for drawing up development plans and protection and management plans.	Current use: No use Potential use: Support for development or updating of local planning documentation and for the elaboration of management plans for N2K sites and other areas of high nature value.
	Measure 7.6 Support for studies and investments for maintenance, restoration and upgrading of cultural and natural heritage.	Current use: No use Potential use: Possible intervention could be the creation of regional networks regarding N2K.
Measure 8 (Art 21-26) Investments in forest area development and improvement of the viability of forests	RDP will support Forest Management Plans which must contribute to the EU Biodiversity Strategy and should include specific measures for N2K forest sites.	Current use: No use
	Sub measure 8.5 support for investments improving the resilience and environmental value of forest ecosystems.	Current use: No use Potential use: Recognises the need to control invasive species that may threaten N2K sites.

Measure 10 (Art 28)	Glastir is the Welsh Government agri-environment scheme, co-funded by EAFRD and Welsh Government.	Current use: Very significant Potential use: Whilst there are no N2K specific measures in Glastir, support for Natura sites can be delivered through several options of the scheme.
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### **Summary of key Natura 2000 related measures being undertaken under fund:**

A key mechanism in Wales for N2K management and restoration is Glastir, the Welsh agri-environment scheme (Measure 10). Glastir is a two-tier whole-farm scheme with a five year duration. Less demanding Entry-level contracts are issued to all farmers who apply and meet the minimum threshold in terms of environmental commitments. More demanding Advanced-level contracts are only offered to those farmers who can deliver against national and EU level priorities in terms of water, climate change and biodiversity. Annual habitat management prescriptions are coupled with one-off capital works payments.

Glastir has been identified by the LIFE Natura 2000 Programme as a key funding source for N2K in Wales over the 2015-2020 period. 245 actions have the potential to be delivered through Glastir schemes at a cost of over £20 million. The majority of these actions will be for new or renewed Glastir agreements with private owners and occupiers.

Other elements of the EAFRD are poorly utilised for N2K. Initiatives such as the RDP LEADER programme may have minor incidental benefits for N2K but there is no prioritisation or targeting of N2K.

In summary, while some elements of the EAFRD may help to deliver N2K objectives, N2K management and restoration is rarely the primary objective or sole priority for the work undertaken.

### **Key lessons learnt and obstacles encountered:**

Glastir has the potential to be a major source of funding for N2K management and restoration. The scheme has a larger budget than other mechanisms, such as NRW Management Agreements, and there is capacity to deliver ongoing appropriate management over extensive areas of semi-natural habitat, such as in the uplands, which is beyond the scope of other schemes. Farmers own and/or manage the majority of terrestrial N2K sites, so a scheme aimed specifically at farm businesses is particularly important. Glastir gives consideration to a wide range of objectives, guided by the target area maps, which supports the integrated natural resource management (ecosystem) approach. Funding of specific activities, such as Water Management Plans, even though not specifically targeted at N2K objectives, can have a range of associated benefits for N2K features by, for example, reducing the general burden of diffuse pollution.

However, there are significant constraints to delivering major improvements for N2K. Landowners are sometimes unwilling to sign up to a scheme which, in complying with EU rules, may appear relatively complex and bureaucratic to some, when financial return is limited to income forgone and costs incurred. The scheme is a national one and payment levels are standardised, which may not account for higher costs in certain sites, areas or farming systems. N2K is only one of several priorities, therefore prescriptions are, generally, not able to be very flexible or focused on the very specific requirements of individual N2K sites, although consultation is carried out to prescribe the most appropriate management options that the scheme is permitted to offer.

There is no guarantee that an applicant will be accepted onto the Advanced level scheme and there is no compulsion to carry out restoration works on the N2K part of a farm, if other higher priorities need to be addressed elsewhere over the holding. Applicants may require

significant amounts of quite specialist advice about management of the N2K features, which is not always readily available, as NRW input is limited by staff resources.

*\* Where estimates are available they should be provided. Otherwise indicate as VS Very significant; MU Moderate Use; MI Minor use; NU No use*

## D.2 European Maritime and Fisheries Fund (EMFF)

Fund	Provision	Level of Use*
EMFF		Minor use
<b>Summary of key Natura 2000 related measures being undertaken under fund:</b> <p>The Welsh core allocation for EMFF amounts to €12.2 million with an additional €7.6 million allocated for control, enforcement and data collection. A draft UK Operational Programme (OP) was submitted to EU for consideration in April 2015. The OP is currently with Defra for responses to the first tranche of queries/comments from EU. The timeline for implementation of the EMFF is November 2015.</p> <p>Recent projects funded by EFF (previous regulation):</p> <p><b>FishMap Môn</b> – 2011- Dec 2013. Project to map fishing activity in Welsh waters around Ynys Môn/Anglesey to inform fisheries habitat sensitivity mapping, to assist with fisheries management on N2K and other vulnerable sea areas and species.</p>		
<b>Key lessons learnt and obstacles encountered:</b> <p>Applicants to EMFF must comply with all appropriate legislation in respect of protected areas. There may be scope to use this fund for N2K specific projects. Marine Fisheries has been identified as a priority pressure/threat to marine N2K features in Wales.</p>		

*Where estimates are available they should be provided. Otherwise indicate as VS Very significant; MU Moderate Use; MI Minor use; NU No use*

## D.3 Structural Funds

Below is a summary of allocations under relevant provisions of structural funds used for N2K management.

Fund	Provision	Level of Use*
European Regional Development Fund (ERDF)	ERDF	Minor use
	INTERREG	Minor use
European Social Fund (ESF)		No Use
<b>Summary of key Natura 2000 related measures being undertaken under fund:</b> <b>2014-2020 Programmes</b> <p>There are no specific measures in the Welsh ERDF or ESF Operational Programmes (2014-20) for funding management work on, or relating to, N2K sites.</p> <p>However, the Cross Border Wales Ireland Interreg Programme offers opportunities for</p>		

work on N2K sites in Priority 3, Cultural and Natural Resources and Heritage, and specifically mentions that projects should take into account the Prioritised Action Framework.

### **Recently completed ERDF projects (2007-13 Programme)**

**Communities and Nature (CAN) Project** - 2007 to 2013 – £14.5 million project within the **Convergence Programme for West Wales and the Valleys**, to create high quality facilities that promote the natural environment in Wales to attract more visitors to rural areas and provide sustainable jobs in rural communities. Led by Countryside Council for Wales. No specific focus on N2K sites or management but some facilities were on or adjacent to N2K sites facilitating public use, understanding and appreciation. E.g. tea room and visitor centre at Cadair Idris SAC and visitor centre and improved access at Cwm Idwal (Eryri SAC), and better access at Newborough (Y Twyni o Abermenai i Aberffraw SAC).

**Mammals in a Sustainable Environment (MISE)** – April 2011 to June 2015 - £1.7 million project, funded by ERDF under the **Ireland Wales Programme (Interreg IVA)**. The project aims to improve understanding of how mammals use their environment, using novel DNA technical and fostering the involvement of communities in west Wales and east Ireland. The project had six partners. The project did not focus on N2K features, but included a survey and genetic testing of coastal Otter spraints within the Pen Llyn a'r Sarnau SAC, and also provided a more general sources of information on the status of otter and bat species across Wales.

**Surf Nature** – An **Interreg IVc** project, with 15 partners from 10 EU Member States. The project was designed to improve regional policies and practices for nature conservation and biodiversity, by increasing the opportunities for financing these measures. The project analysed 46 Operational Programmes in 10 Member States and regions, to identify good practice which could be used for future programme planning and also to identify problems and gaps which needed to be addressed in future programmes. Wales was identified as having very few opportunities for financing nature conservation and biodiversity.

### **Key lessons learnt and obstacles encountered:**

The only measure in the ERDF Convergence Programme for West Wales and the Valleys 2007-13 which could be utilised for N2K, focused on developing economic gains through tourism, access and recreation, and small business development. The omission of Intervention Category 51, which would have allowed conservation works on Natura sites was a major obstacle to the direct management and restoration of N2K designated features. Although Categories 55 and 56 were included and activities under these categories could take place on a Natura sites, management of sites was not included in the indicative activities of the Programme, thus making the fund of limited use to Natura managers.

The West Wales and the Valleys ERDF Programme for 2014-20 offers even fewer opportunities for funding the natural environment than the previous Programme. The link between the natural environment and the economy is not widely recognised or supported by the current Programme, making this major source of funding inaccessible to N2K managers.

The Wales Ireland Interreg Programme offers potential for funding work on N2K issues.

*Where estimates are available they should be provided. Otherwise indicate as VS Very significant; MU Moderate Use; MI Minor use; NU No use*



## D.4 LIFE

Provide a summary of allocations under LIFE+ for N2K management.

Fund	Provision	Level of Use*
LIFE	Nature and Biodiversity	Moderate use
LIFE	Environment Policy and Governance	No use
LIFE	Climate Action	No use
<p><b>Summary of key Natura 2000 related measures being undertaken under fund:</b></p> <p>Ongoing LIFE projects in Wales (impacting on N2k):</p> <p><b>PIP GB - Pearls in Peril – Securing the future of the freshwater pearl mussel in Great Britain</b> (LIFE11 NAT/UK/000383). 2012 to 2016. Led by Scottish Natural Heritage, A project to safeguard important populations of Freshwater pearl mussel. A wide range of conservation measures will be implemented in key river systems. Action in Wales is focused on Afon Eden SAC.  <a href="http://www.snh.gov.uk/funding/life+-nature-and-biodiversity/">http://www.snh.gov.uk/funding/life+-nature-and-biodiversity/</a></p> <p>Recently completed LIFE projects in Wales:-</p> <p><b>N2KWales – Development of a Programme for the management and restoration of Natura 2000 in Wales</b> (LIFE 11 NAT/UK/000385). Sept 2012 to Sept 2015. £1 million budget (50% LIFE funding). Led by NRW. Developed a strategic plan of costed and prioritised actions required for SACs and SPAs in Wales, comprised of Prioritised Improvement Plans for sites and Thematic Action Plans.</p> <p><b>Anglesey &amp; Llyn Fens LIFE Project</b> (LIFE07 NAT/UK/000948). Feb 2009 to Mar 2014. €5.4 million budget. Restoring alkaline and calcareous fens within the Corsydd Mon a Llyn (Anglesey &amp; Llyn Fens) SACs in Wales</p> <p><b>ISAC08 – Irfon Special Area of Conservation project</b> (LIFE08 NAT/UK/000201). 2000 to Jan 2014. €1.27m Euro project, led by the Wye and Usk Foundation with four partners. To restore part of the River Wye SAC by correcting acidification in tributary (Irfon) headwaters, restore habitats and recover populations of Pearl mussel and White clawed crayfish.</p>		
<p><b>Key lessons learnt and obstacles encountered:</b></p> <p>The LIFE projects which are underway or recently completed are regarded as successful and an effective way of delivering new and focused resources to key conservation activities in Wales. In particular the Anglesey and Llyn Fens Project was particularly large in scale and ambitious in approach, and is now considered an exemplar in the area of wetland restoration.</p> <p>However, projects have tended to be initiated in response to opportunities rather than as part of the delivery of a strategic and coordinated programme of restoration. A rolling programme of projects would be desirable with, for example, at least two significant projects underway in Wales at any one time, and an overlap between projects ending and those starting. Each should address key priorities and build on the work of the last to improve the condition of features across the N2K series.</p> <p>The outputs of the LIFE Natura 2000 Programme should help address this issue, as it has set out a strategic framework and set of national priorities to assist in the focusing of effort on key projects.</p> <p>However, challenges remain around finding the up-front staff resources and expertise to</p>		

prepare bids (which is complex and time consuming), identifying match funding and putting in place appropriate support systems for applicants and project managers.

*Where estimates are available they should be provided. Otherwise indicate as VS Very significant; MU Moderate Use; MI Minor use; NU No use*

## D.5 Other key funding sources

Fund	Level of Use*
Horizon 2020 (H2020)	No use
Public/Private Partnership financing schemes	Minor use
Use of innovative financing	No use
Other (National public sources)	Very significant
<p><b>Summary of key Natura 2000 related measures being undertaken under fund:</b></p> <p>Public sector competitive grants for projects relating to biodiversity conservation and protected sites in Wales are available, albeit at relatively modest levels. The main source is from public bodies such as the Welsh Government and NRW, as well as Local Authorities and National Parks. Applicants are often from the third sector. Rather than having long-term funding schemes in place, public bodies often announce funding calls on a year by year basis as resources become available. Funding is generally relatively short term e.g. up to three years.</p> <p>Third sector organisations such as the RSPB, Wildlife Trusts and National Trust also invest in ongoing work and specific projects. The Heritage Lottery Fund is also a source of funding for the natural environment as are several private trust funds.</p> <p>Historically, funds tended not to have been targeted specifically at N2K sites or features, however, successful projects often include N2K management and restoration.</p> <p><b>NRW 2014/15 Competitive Fund</b> worth £1.2m, targeted work on Natura sites, focusing on issues and actions identified in the NRW Actions Database.</p> <p><b>Nature Fund Collaborative Projects</b>  <a href="http://gov.wales/topics/environmentcountryside/consmanagement/natural-resources-management/nature-fund/?lang=en">http://gov.wales/topics/environmentcountryside/consmanagement/natural-resources-management/nature-fund/?lang=en</a>  <a href="http://gov.wales/docs/desh/publications/150513nature-fund-collaborative-projects-en.pdf">http://gov.wales/docs/desh/publications/150513nature-fund-collaborative-projects-en.pdf</a></p> <p>Twenty projects received funding via the £6m Welsh Government 2014 Nature Fund to tackle the continued decline in biodiversity across Wales, through innovative landscape-scale actions, bringing in social and economic factors in seven Nature Action Zones. Projects do not specifically focus on N2K but some may deliver N2K improvement or improve connectivity and green infrastructure between sites.</p> <p>Project include:</p> <ul style="list-style-type: none"> <li>• Coed Cymru and Rivers Trust farmed landscapes and river catchment project</li> <li>• Long Forest 2 (Hedgerow and woodland management project)</li> <li>• Peatland Push Cymru</li> <li>• North Wales Moors Futurescape Programme, RSPB</li> <li>• Connectivity work in the Duhonw catchment</li> <li>• Castlemartin Peninsula</li> <li>• Future Fisheries Living Seas</li> </ul>	



- Ecosystem Enterprise partnership – Ecobank
- Elenydd Purple Moor Grass
- Berwyn and Migneint, Black mountains and Radnor upland recovery.

**Come Outside!** (November 2012 to March 2016, £1.1 million) is a programme supported by the Big Lottery Fund which has worked with over 40 organisations to inspire and motivate people with sedentary lifestyles to discover and enjoy the outdoors, experience the benefits, and value and care for the natural environment. It did not have an N2K focus but in some cases used N2K sites for activities, including Crymlyn bog, Swansea, Aberbargoed Grasslands, Caerphilly and Glynllifon, Gwynedd

### **Llyn Landscape Partnership**

<http://www.ahne-llyn-aonb.org/36/en-GB/Landscape-Partnership>

£1.7 million partnership project within the Llyn Area of Outstanding Natural Beauty, supported by the Heritage Lottery Fund and more recently the Nature Fund. Protecting and promoting environmental and cultural heritage and landscape. Including work to manage the coastal heathlands of Llŷn including on SACs.

### **Welsh Government Flood and Coastal Risk Programme**

The National Habitat Creation Programme (NHCP), is funded through the Welsh Government Flood and Coastal Erosion Programme, and delivered by NRW on behalf of Welsh Government. The aim is to manage the impact of future coastal squeeze and stay ahead of any loss or detriment to N2K. The need for the compensatory habitat stems from legal requirements under the Habitats Directive and Water Framework Directive which apply to the Shoreline Management plans. The NHCP was awarded over £1million during 2015/2016 to continue to strategically deliver compensatory habitat in Wales so that the coherence of the N2K network is maintained where any flood defences may directly produce a negative impact. The investment can be made in those areas where ‘hold the line policies’ have been agreed. The Welsh Government also works with partners such as Local Authorities and the National Trust.

### **Key lessons learnt and obstacles encountered:**

Schemes which deliver N2K objectives may well be considered favourably but N2K is rarely an overriding priority for many funds.

There tends to be a focus on short-term schemes and projects, often due to uncertainty of future funds.

There is a strong reliance on biodiversity-specific funds to deliver management and restoration of N2K habitats and species. Access to funds from other sectors (e.g. socio-economic, health, education) is sometimes possible for activities such as improving access to the countryside, but these do not normally incorporate improvements to the status of the N2K features – often because the ecosystem services and socio-economic benefits of the N2K features are poorly recognised. This lack of recognition means that many sources of funding are unavailable for management of the Natura network.

National public funds described above are not routinely used as match funding for larger EU funding bids.

*Where estimates are available they should be provided. Otherwise indicate as VS Very significant; MU Moderate Use; MI Minor use; NU No use*

## D6. Summary

It is encouraging to see reference to the Prioritised Action Framework (PAF) in both the Rural Development Programme (RDP) for Wales and in the Interreg Ireland Wales Cooperation Programme. The Glastir element of the RDP in particular offers a variety of potential funding to Natura sites although the Natura measures of the Regulation are not included. The Ireland Wales Programme makes reference to the need for projects to take the PAF into account but does not make this a mandatory requirement. It is hoped that in future years the influence of the PAF in these two Programmes will be increased and that the PAF will also influence the development of other Operational Programmes (ERDF and ESF) in Wales.

The LIFE Natura 2000 Programme for Wales project commissioned a report *Natura 2000 Funding in Wales, 2015, ICF International*. The report highlights the need for diversifying the sources of funding available for N2K, suggesting that a structured funding prioritisation framework could help maximise the impact of available funds by targeting those sites where there is an opportunity to capture additional funding from other sources.

The strategic framework and priorities which formed part of the outcomes of the LIFE Natura 2000 Programme could be used to take forward a N2K funding plan for Wales. This plan would incorporate all available funds and develop a coordinated approach to the priorities identified in the LIFE Natura 2000 Programme. Welsh Government has recently (November 2015) established a LIFE Forum for Wales, to include NRW and the major environmental NGOs. It is hoped that this Forum will take forward projects and approaches to the management of Wales' N2K sites, using LIFE and other funds in partnership to maximise the impact on the sites.

Overall, the approach to funding actions on N2K sites lacks strategy and long term planning, with opportunistic, short term funding being a commonly used approach. The lack of recognition of the wider economic and social benefits for N2K mean that opportunities from several potential funding sources are currently unavailable for N2K management. The PAF is recognised as a potentially powerful tool in the future management of N2K in Wales and should also be used as a tool to influence both European and domestic funding.

## E Current estimate of financial needs for management of Natura 2000 in Wales

In total nearly 3,600 actions to address issues and risks on N2K in Wales have been logged both at a site and management unit level. On average there are 32 unique actions per site. The total estimated additional cost for the period to 2020 is nearly £120 million – with an average of just over £1 million per site, although there is a great deal of variation between sites.

### Summary of actions and costs for Welsh Natura 2000 sites

	Number (all actions)	Cost (all actions)	Average no of actions per site	Average cost per site	One-off costs	Total ongoing costs to 2020
Unit actions	2,709	£62,249,000	24	£556,000	£28,094,000	£34,155,000
Site actions	888	£57,780,000	8	£516,000	£52,645,000	£5,135,000
<b>Total</b>	<b>3,597</b>	<b>£120,029,000</b>	<b>32</b>	<b>£1,072,000</b>	<b>£80,739,000</b>	<b>£39,290,000</b>

*Data from September 2015. Costs rounded to the nearest £1,000*

*Unit actions are those required only within given management units. Site actions are required across the whole site and all management units within that site.*

*Ongoing costs are generally annual costs multiplied by 5 (i.e. number of years to 2020.)*

74% of actions have been costed. Many of the uncoded actions are those which are inherently difficult to cost, such as changes to policy and legislation, enforcement, stakeholder engagement, training or education. Some actions in the marine environment were also challenging to cost. If costs are extrapolated at current rate, to include uncoded actions then the total is £144 million and an average £1.3 million per site to 2020.

The figures are based on the high, medium and low priority actions. Costs shown above **do not** include staff time, ongoing currently funded conservation management work, or costs for strategic actions in the Thematic Action Plans (as itemised in Section G). Some ongoing actions will require funding beyond 2020 and new actions will be identified up to and beyond 2020, especially as further plans are completed (e.g. Site Nitrogen Action Plans). Therefore, the total cost to address all pressures and threats will be substantially higher than the figures quoted above.

### Breakdown of costs by measure category

PAF measure number	PAF measure category	Total cost (£)
5	Preparation of management plans, strategies and schemes (including scientific studies and investigations needed for planning and implementation based on solid knowledge)	£3,277,000
12/13/14	Conservation management measures	£82,746,000
15	Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.	£29,003,000
18	Risk management (fire prevention and control, flooding etc)	£624,000

21	Training and education	£1,502,000
23	Land purchase, including compensation for development rights	£2,418,000
	Legislation, enforcement and other regulatory measures	£168,000
24	Infrastructure needed for habitat or species restoration	£150,000
8	Review of management plans, strategies and schemes	£141,000

*Data from September 2015*

*Figures rounded to the nearest £1000*

#### **Summary table of costs of site actions on the Natura 2000 network by feature category**

<b>Feature category</b>	<b>No of actions</b>	<b>Total Cost</b>	<b>One-Off Cost</b>	<b>Running costs</b>
Agricultural & forest habitats & species	1777	£54,381,000	£36,843,000	£17,538,000
Marine & coastal habitats & species	752	£55,898,000	£46,697,000	£9,201,000
Wetland habitats & species (Including peatlands)	1896	£58,174,000	£33,635,000	£24,539,000

*Data from September 2015*

*Figures rounded to the nearest £1000*

*Some duplication of costs are included in these figures, as individual actions/costs may apply to features from more than one category.*

## **F STRATEGIC CONSERVATION PRIORITIES FOR NATURA 2000 FOR THE TERRITORY FOR PERIOD 2014-2020**

### **F.1 Summary of priorities for period (and expected outcomes), for priority habitat types and species having regard to the need for measurable progress on the nature sub-target under EU 2020 biodiversity strategy and for ensuring good functioning of Natura 2000 network (SACs + SPAs)**

The LIFE Natura 2000 Programme has developed a set of tools to facilitate decisions relating to prioritisation of the delivery of actions within and across the N2K series, as shown below. These can be used, together or separately by practitioners to aid decision-making as and when required in the relevant context. They have also been used in combination to enable a set of Wales-wide ecosystem-based priority highlights, to be established which are shown below.

Further information is provided in the associated document LIFE Natura 2000 Programme: Approach to Prioritisation - see Appendix B.

#### **Prioritisation Tools**

##### **Tool 1: Major issues and risks affecting N2K in Wales (and associated strategic thematic actions)**

Level	Wales level
Description	Actions which will address the dominant issues and risks affecting N2K sites frequently and across the network, as shown on page 39, are priorities for Wales.
Method	The major issues and risks were identified by the LIFE Natura 2000 Programme using data in the NRW Actions Database with input from stakeholders.
Additional material	Strategic actions for each major issue/risk have been identified in the Welsh N2K Thematic Action Plans. High priority actions are included in the Section G of this document.
Uses	In particular, this tool will aid decision-making when limited resources are to be allocated at a national level or for example, when determining which major externally funded projects will be supported/promoted.

##### **Tool 2: N2K feature needs analysis**

Level	Wales level
Description	Identification of those SAC species and habitats features and SPA bird features with the greatest conservation needs and strongest legislative drivers, using a systematic methodology.
Method	The analysis was undertaken using a Multi-criteria Decision Analysis approach, where data on 14 different criteria representing a range of different 'needs' were scored and weighted by specialists in a set of 3 matrices (Annex I habitats, Annex II species, Birds). This produced a broad ranking of feature need.

Criteria	The criteria used are shown below.		
	<b>Criteria</b>	<b>Cluster</b>	<b>Matrix</b>
	Habitats Directive Priority Feature	Legal/Policy	Habitats,
	Section 42 Habitats and Species of Principle Importance for Conservation in Wales	Legal/Policy	Habitats, Species, Birds
	Highly water dependent (aquatic) feature with drivers under Water Framework Directive	Legal/Policy	Habitats, Species, Birds
	UK special responsibility	Coverage	Habitats, Species
	Percentage of UK resource in Wales (Wales special responsibility)	Coverage	Habitats, Species, Birds
	Habitats Directive Article 17 reporting status	Conservation status	Habitats, Species
	Percentage of sites with feature in favourable condition (current condition of feature on N2K sites in Wales)	Conservation status	Habitats, Species
	International conservation status	Conservation status	Species, Birds
	Birds Of Conservation Concern (BOCC) List	Conservation status	Birds
	Climate change vulnerability index	Sensitivity	Habitats, Species, Birds
	Range of ecosystem service provision	Value	Habitats, Species
	Number of sites designated for feature	Rarity	Habitats, Species, Birds
	UK population trend (long term)	Population trend	Birds
	UK population trend (short term)	Population trend	Birds
Uses	In particular, this tool will aid decision-making when limited resources are to be allocated at a national level or for example, when determining which major externally funded projects will be supported/promoted.		
Further information	This analysis has formed the starting point for the generation of the priority highlights shown below. Where a number of features from the same ecosystem appear in the highest rankings it is possible to infer a general priority based on that ecosystem.		

### Tool 3: Matrix of prioritised issues and risks at site level

Level	Site level
Description	Assessment for each N2K site of the priority of issues and risk affecting habitat and species features on the site. Actions to address a given issue or risk are given High, Medium or Low priority based on the prioritisation of the issue/risk.
Method	The analysis was undertaken by NRW Conservation Officers with input from relevant specialists and stakeholders. Priorities were determined using a matrix based approach.
Criteria	Pressure (issue): Extent Severity Management (marine only) Threat (risk): Extent Likelihood

Uses	In particular, this tool will give guidance to site managers when establishing work programmes and allocating site budgets.
Further Information	Where high priority actions are repeatedly logged on numerous sites they are included in section G of this document.

### **Priority highlights: Pressures and threats**

The priority pressures and threats (issues and risks) identified by the LIFE Natura 2000 Programme in 2015 (Tool 2) are as follows:

- Access and recreation
- Air pollution
- Climate change
- Diffuse water pollution
- Flood and coastal erosion risk management
- Grazing and livestock management
- Habitat fragmentation
- Invasive species (native and non-native) and pathogens
- Man-made changes to hydraulic conditions
- Marine litter
- Sea fisheries
- Woodland management

### **Priority highlights: Ecosystems**

Using a combination of the tools above, a set of overarching priority ecosystems has been identified for Wales for the 2015-20 period, as shown below. The priorities are expressed primarily in the form of ecosystems, rather than individual features, because management and restoration is rarely carried out solely for one feature but on an ecosystem-wide basis. i.e. rather than managing for Dune slacks or Petalwort in isolation, the whole sand dune ecosystem would be managed holistically, by for example, establishing a sustainable grazing regime on the whole site. This ecosystem approach also allows for the consequent improvement of other (lower priority) N2K features and other wildlife of the site, and better incorporation of broader factors such as socio-economic improvements etc.

The priority ecosystems are as follows: (In all cases habitat and species features are included)

- Peatlands – upland and lowland
- Sand dunes
- Rivers
- Woodlands

In the marine environment

- Lagoons and shingle
- Estuaries including saltmarsh

The priority highlights are described in full in the *Approach to Prioritisation* document.

**High priority measures (actions) derived from the prioritisation exercises described above are shown in Section G.** These measures include summaries of site-based actions, and strategic actions which can be tackled at a national level.

The full Programme of action for Natura 2000 in Wales can be found in the Thematic Action Plans and Cross-cutting Action Plans (high, medium and low strategic actions) and the Prioritised Improvement Plans and NRW Actions Database (high, medium and low actions for individual sites).

It should be noted that funding and staff resourcing is required for all actions, not only those high priority ones itemised in this Prioritised Action Framework. There is also a substantial set of actions already in place and ongoing (maintaining the condition of features) which are not included in the documents described above, which require ongoing funding and other resources.

## **F.2 Summary of priorities for other habitats and species covered by nature Directives having regard to the need for measurable progress on nature sub-target under EU 2020 biodiversity strategy (Habitats and Birds Directives) and for ensuring good functioning of Natura 2000 network (SACs + SPAs)**

See section F.1 above.

## **F.3 Strategic priorities in relation to investments in Natura 2000 linked to green tourism and jobs, to support climate change mitigation and adaptation or other ecosystem benefits, for research, education, training, awareness and promotion of co-operation (including cross-border) linked to Natura 2000 management**

### **Climate change mitigation and adaptation**

A Climate Change Vulnerability Index has been established for Welsh N2K sites based on their features. The full list of those features with a high vulnerability are shown in Section G. Those pressures and threats (issues and risks) which have a high risk of being exacerbated by climate change have also been identified as shown below.

- Drainage
- Water levels (including barriers to natural hydrology and altered water flow)
- Fire - deliberate or accidental
- Diseases pathogens and parasites
- Tree planting, past and present
- Water abstraction
- Energy production - renewables: hydro-electric
- Natural coastal processes and sediment supply
- Coastal flood defence and erosion control (squeeze)
- Inland flood defence and erosion control

An analysis has been carried out which identifies those highly vulnerable features which are affected by four or more instances of issues or risks which are highly exacerbated by climate change. These are deemed to be of the highest priority for action in relation to climate change and are shown below:



Priority measures to address climate change and habitat fragmentation have also been established. These have been laid out in Section G below.

NB. Climate change vulnerability was a criteria within the N2K Feature Needs Analysis (Prioritisation Tool 2).

### **N2K Features in Wales with High Climate Change Vulnerability**

*No. = Number of instances of pressures/threats (issues/risks) recorded on N2K sites which may be highly exacerbated by climate change.*

*Data from September 2015*

<b>Feature (common name)</b>	<b>No.</b>
Blanket bog	82
Purple moor-grass meadows	41
Degraded raised bogs	36
Calcium-rich springwater-fed fens	33
Intertidal mudflats and sandflats	28
Atlantic salt meadows	27
Petalwort	25
Calcium-rich fen dominated by great fen sedge -saw sedge-	24
Active raised bogs	23
Western acidic oak woodland	23
Mixed woodland on base-rich soils associated with rocky slopes	15
Calcium-rich nutrient-poor lakes, lochs and pools	14
Depressions on peat substrates	11
Shifting dunes	10
Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	9
Naturally nutrient-rich lakes or lochs which are often dominated by pondweed	4
Pintail	3
Oystercatcher	3
Lagoons	2
Freshwater pearl mussel	2
Bog Woodland	1
Hard-water springs depositing lime	1

### **Other ecosystem services**

N2K features and sites provide ecosystem services including climate regulation, water quality and quantity, hazard regulation, food, fuel and social value (aesthetic, recreational and tourism). An appraisal of ecosystem services provided by N2K features and sites has been carried out. Features identified as providing the greatest range of ecosystem services are shown below.

NB. The 'range of ecosystem services provided' was a criteria within the N2K Feature Needs Analysis (Prioritisation Tool 2).

## N2K Features in Wales providing the greatest range of ecosystem services

Ecosystem	N2K feature (common name)
Wetlands	Active raised bogs
	Base-rich fens
	Blanket bog
	Calcium-rich fen dominated by great fen sedge (saw sedge)
	Degraded raised bog
	Very wet mires often identified by an unstable 'quaking' surface
Rivers	Rivers with floating vegetation often dominated by water-crowfoot
Woodlands	Alder woodland on floodplains
	Beech forests on acid soils
	Beech forests on neutral to rich soils
	Bog woodland
	Mixed woodland on base-rich soils associated with rocky slopes
	Western acidic oak woodland
	Yew-dominated woodland
Other	Purple moor-grass meadows
	Vegetated sea cliffs

*Note: Features are not listed in ranked order.*

Current governmental policy in Wales is focused on the natural resource management approach (ecosystem approach), whereby all activity and investment seeks to integrate the needs of different sectors, in an area-based approach to derive multiple benefits, including the economic and other needs of communities. All delivery of work on N2K sites will therefore be carried out within this framework.

## Socio-economic development

Investment in the management and restoration of N2K sites can stimulate socio-economic development in a number of ways, for example, tourism, education and training opportunities, employment of local contractors, small business opportunities etc. This investment will have the most impact in those areas of Wales which are most deprived. The 20% most deprived areas in Wales are mapped, and those N2K sites which overlap, or which are within 1km of these areas, can be considered as a priority with regards to socio-economic development.

There are 52 sites which fall into this category including those shown in the table below. A full list is shown in Appendix A.

## Examples of N2K sites overlapping or within 1km of the 20% most deprived areas in Wales

	Examples of N2K sites
Urban 20% most deprived areas	Aberbargoed Grasslands near Bargoed
	Blaen Cynon near Aberdare
	Crymlyn Bog near Swansea
	Deeside and Buckley Newt sites near Connah's Quay
	Kenfig near Bridgend
	Severn Estuary near Cardiff
	Usk Bat Sites near Brynmawr

Rural 20% most deprived areas	Bae Cemlyn and Ynys Feurig, Cemlyn Bay and the Skerries in North Anglesey
	Y Twyni o Abermenai i Aberffraw in West Anglesey
	Corsydd Eifionydd on the Lleyn Penninsular
	Pen Llyn a'r Sarnau – Mawddach area
	Elenydd – Cambrian Mountains
	Carmarthen Bay and Estuaries and Carmarthen Bay Dunes – Carmarthen Bay hinterland

## G Description of key measures to achieve priorities

*NB. All 'potential financing sources' are dependent on the content of the 2014-2020 Regulations, UK Partnership Agreement and Wales Programmes*

*The measures laid out below represent only high priority measures. A full list of measures can be found in the relevant LIFE Natura 2000 Programme Thematic Action Plan and Prioritised Improvement Plans.*

*The measures indicate action which is required to bring Natura 2000 features in Wales to favourable condition. They do not represent a committed or fully-funded programme of work.*

### G.1.a General Priority Measures for Natura 2000

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources*
<b>Investigations</b>			
5 Preparation of scientific studies & investigations	Review and collate N2K investigation actions, and develop strategic, co-ordinated and efficient programmes of delivery for marine and terrestrial N2K sites.	All features, particularly marine features	National public
5 Preparation of scientific studies & investigations	Investigate external sources of funding for investigation actions.	All features, particularly marine features	Horizon 2020, LIFE
<b>Financing</b>			
Develop financing options	Deliver a continuous rolling programme of major externally-funded project addressing major priorities for N2K in Wales.	Features included in 'Priority Ecosystems' (p.39)	LIFE, Private, National public,
	Develop the necessary support structures and means to facilitate more timely bid preparation, higher levels of successful applications, and successful project delivery, through the following means:-		
Develop	Implementation of a more co-ordinated and strategic	Features included in 'Priority	National public

financing options	approach to the process of selecting and supporting high priority bids.	Ecosystems' (p.39)	
Develop financing options	Develop access to discretionary funds to support major external funding applications. E.g. match funding, funds to support bid preparation.	Features included in 'Priority Ecosystems' (p.39)	National public
<b>21</b> Training & education	Capacity building E.g. via training, mentoring, networking, advice, handbook, shared resources, etc in relation to bid preparation, project management, financial management, reporting etc.	Features included in 'Priority Ecosystems' (p.39)	National public
<b>20</b> Provision of information & publicity material	Dissemination of best practice/case studies from Wales and further afield	Features included in 'Priority Ecosystems' (p.39)	National public
<b>Integration</b>			
Integration measures	Integrate N2K needs into Natural Resource Management Area Statements.	All features	National public
Integration measures	Integrate N2K into other elements of developing natural resource management strategy and policy, in such a way that conservation objectives are met.	All features	National public
Integration measures	Work with area-based cross-sectoral stakeholder groups/fora to promote N2K management within an ecosystem/natural resource management context. e.g. NRM area groups, management catchments, Landscape scale projects, LBAPs, National Parks, AONB etc.	All features	National public
Integration measures	Deliver a review of NRW landholdings to ensure all issues affecting N2K features are being addressed and to maximise benefits for N2K.	All features	National public

Integration measures	Deliver a coordinated programme of integration of N2K needs into plans and programmes of works e.g. Flood Risk Management Plans.  Deliver coordinated programme of integration of N2K needs into policies and strategic plans. E.g. Shoreline Management Plans.	All features	National public
Integration measures	Deliver a coordinated programme of integration of N2K needs into EU and other finance sources.	All features	National public
Integration measures	Integrate Water Framework Directive River Basin Management Plan and PAF cycles, updating of programmes of work, managerial oversight, data systems and reporting.	All features	National public
<b>Changes to policy and legislation</b>			
Changes to policy & legislation	Continue to acknowledge and ensure coherence of implementation of Welsh, UK and EU legislative approaches, in relation to N2K.	All features	National public
Changes to policy & legislation	Support Glastir agri-environment scheme to address drivers and opportunities in relation to N2K site management.	Agricultural, forest, and wetland habitats and species	National public

*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*

### G.1.b Priority Measures for Natura 2000 agricultural and forest habitats and species

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources*
<b>Agricultural habitats and species – Specifically relating to grazing and livestock farming pressures and threats</b>			
<b>Priority site level actions</b>		<p>The following features have 30 or more instances of pressures/threats associated with grazing and livestock farming management logged against them. (Features are shown in numerical order i.e. those with most pressures/threats first.)</p> <p>Dry heath Blanket bog Purple moor-grass meadows Wet heathland with cross-leaved heath Calcium-rich springwater-fed fens Marsh fritillary butterfly Western acidic oak woodland Calcium-rich fen dominated by great fen sedge Very wet mires often identified by an unstable ‘quaking’ surface Dry grassland and scrubland on chalk or limestone Great crested newt Degraded raised bogs Vegetated sea cliffs</p>	
<b>15</b> Management schemes and agreements with owners and managers	Enter into 351 NRW Management agreements to ensure appropriate grazing and livestock management (new agreements and renewals).		National public,
<b>15</b> Management schemes and agreements with owners and managers	Enter into 195 Glastir agri-environment agreements to ensure appropriate grazing and livestock management (new agreements and renewals)		National public, EAFRD
<b>5</b> Preparation of scientific studies and investigations	Carry out 342 investigations.		National public, LIFE, Horizon 2002
<b>12, 13</b> Conservation management measures	Carry out 321 direct management actions.		EAFRD; ERDF, ESF, LIFE, National public, Private



Strategic actions		<p>Chough Southern damselfly Humid dune slacks Merlin Otter</p> <p>A further 57 features have a lower number of pressures and threats relating to grazing and livestock management logged against them.</p>	
Innovative measure	<p>Continue with development of Payment for Ecosystem Services (PES) schemes/ systems incorporating N2K needs.</p> <p>Investigate further ecosystem services provided by N2K sites and features.</p>		EAFRD, LIFE, National public, private
<b>12, 13</b> Conservation management measures	<p>Review impact of targeted grazing projects on Welsh Government Woodland Estate N2K sites.</p> <p>Roll out more widely, if appropriate.</p>		National public
Innovative measure	Review opportunities to encourage large livestock and traditional breeds to graze N2K sites.		National public, LIFE
<b>12, 13</b> Conservation management measures	Maintain and support existing local grazing schemes and encourage the development of new local and regional grazing projects /schemes covering groups of N2K sites.		EAFRD; ERDF, ESF, LIFE, National public, Private
<b>21</b> Training & education	Develop environmental education initiative(s) using an ‘educate the educators’ approach. To focus on traditional and wildlife-friendly grazing techniques, appropriate breeds, financial benefits/support, marketing of produce etc.		EAFRD; ERDF, ESF, LIFE, National public, Private

<b>21</b> Training & education	Develop training and educational resource(s) to improve conservation grazing management knowledge and skills of landowners. Target landowners to improve engagement and willingness to undertake appropriate management on N2K sites.		EAFRD; ERDF, ESF, LIFE, National public, Private
<b>Forest habitats and species - Specifically relating to inappropriate woodland management pressures and threats</b>			
<b>Dominant site level actions</b>		<p>The following woodland features have 5 or more instances of pressures/threats associated with inappropriate woodland management logged against them. (Features are shown in numerical order i.e. those with most pressures/threats first.)</p> <p>Western acidic oak woodland Mixed woodland on base-rich soils associated with rocky slopes Beech forests on neutral to rich soils Yew-dominated woodland Alder woodlands on floodplains</p> <p>Other features impacted by inappropriate woodland management (5 or more instances)</p> <p>Degraded raised bogs Dry heaths Great crested newts</p>	
<b>12</b> Conservation management measures	Carry out 111 direct woodland management actions.		EAFRD; ERDF, ESF, LIFE, National public, Private
<b>15</b> Management schemes and agreements with owners and managers	Enter into 41 NRW Management agreements to ensure appropriate woodland management (new agreements and renewals).		National public
<b>15</b> Management schemes and agreements with owners and managers	Enter into 18 Glastir agri-environment agreements, to ensure appropriate woodland management (new agreements and renewals).		National public, EAFRD
<b>5</b> Preparation of scientific studies and investigations	Carry out 32 investigations.		National public, EAFRD; ERDF, LIFE, Horizon 2020

<b>Strategic actions</b>		Grasslands on soils rich in heavy metals Blanket bog Dry grasslands and scrublands on chalk or limestone Red kite Lesser horseshoe bat A further 29 features have a lower number of issues and risks relating to inappropriate woodland management logged against them.	
Innovative mechanism	Bring more woodland into appropriate and planned management through the promotion of marketing of woodland products.		EAFRD; ERDF, ESF, LIFE, National public, Private
<b>12</b> Conservation management measures	Create new semi-natural woodland to improve resilience of SAC features.		EAFRD; ERDF, ESF, LIFE, National public, Private
<b>8.</b> Review of management plans, strategies & schemes	Promote favourable management for N2K sites and features on NRW-managed estate, including <ul style="list-style-type: none"> <li>Welsh Government Woodland Estate</li> <li>National Nature Reserves</li> <li>Flood Risk Assets</li> </ul> by reviewing relevant management and delivery plans (including Forest Resource Plans) to incorporate and prioritise N2K requirements.		National public
<b>5</b> Preparation of management plans, strategies & schemes	Within Area Statements develop and promote an area-based woodland management framework and co-ordinated partnership approach to action.  To include collaborative management activity between Welsh Government Woodland Estate and private landowners.		National public, private

*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*

### G.1.c Priority Measures for Natura 2000 marine and coastal habitats and species

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources
<b>Measures to address marine fisheries pressures and threats</b>			
<b>5</b> Preparation of scientific studies and investigations	<p>Improve marine fisheries evidence base in line with the recommendations identified in the Welsh Marine and Fisheries Strategic Action Plan in support of obligations under European legislation. This should include:</p> <ul style="list-style-type: none"> <li>• collection of high resolution spatial data on fishing effort</li> <li>• collection of catch data per fishery</li> <li>• improved data accessibility.</li> </ul>	<p>The following features have 2 or more instances of pressures/ threats associated with marine fisheries management logged against them at a site level. (Features are shown in numerical order i.e. those with most issues/risks first.)</p> <p>Reefs Intertidal mudflats and sandflats Estuaries Shallow inlets and bays Glasswort and other annuals colonising mud and sand Atlantic salt meadows Grey seal Oystercatcher</p> <p>A further 19 features have one pressure/threat relating to sea fisheries logged against them.</p>	National public, LIFE, EMFF, INTERREG, Horizon 2020
<b>5</b> Preparation of scientific studies and investigations	Continue a programme of work to complete and maintain a high resolution data map of sub-tidal feature location and extent in European Marine Sites in Wales.		National public, LIFE, EMFF, INTERREG, Horizon 2020
<b>5</b> Preparation of scientific studies and investigations	Develop a programme of work on assessment of marine fishing activities to increase understanding of direct and indirect impacts of different fishing activities on European Marine Site features.		National public, LIFE, EMFF, INTERREG, Horizon 2020
<b>5</b> Preparation of scientific studies and investigations	Carry out a cross-Wales review of unregulated activities targeting living marine resources.		National public, LIFE, EMFF, INTERREG, Horizon 2020

Measures to address flood and coastal erosion risk management pressures and threats			
Enforcement	Implement and review marine licensing processes to assess the efficacy of the new procedures in protecting the integrity of the N2K features in the context of Shoreline Management Plans (SMPs).	<p>The following features have 2 or more instances of pressures/threats associated with flood and coastal erosion risk management logged against them at site level. (Features are shown in numerical order i.e. those with most pressures/threats first.)</p> <p>Estuaries Atlantic salt meadows Intertidal mudflats and sandflats Glasswort and other annuals colonising mud and sand Shifting dunes with marram Shallow inlets and bays Reefs Humid dune slacks Dune grassland Shifting dunes Dunes with creeping willow Petalwort Otter Fen orchid Shore dock Sea caves Dunlin Shelduck</p> <p>A further 14 features have one</p>	National public
Integration measures	Ensure that the Welsh Government Flood and Coastal Risk Management Programme continues to consider implications for N2K features and RBMPs, and that any mitigation and compensation requirements through proposed flood and coastal erosion defence schemes are accounted for within funding considerations.		National public
5. Preparation of management plans strategies & schemes	Progress work to develop a strategy for sustainable transport networks in the context of climate change and SMP policies.		National public
12/13 Conservation management for habitats/species	Deliver the National Habitat Creation Programme (NHCP).		National public
5 Preparation of scientific studies & investigations	Develop understanding of and guidance for sediment management in N2K sites.		National public, Horizon 2020
5. Preparation of management plans strategies & schemes	Develop local adaptation plans to implement SMPs, and keep delivery of those plans under review.		National public
5. Preparation of management plans strategies & schemes	Develop guidance for managing maintained assets. This should include development of policies for repair, replacement and improvement of assets and approach to dealing with storm damage.		National public

5 Preparation of scientific studies & investigations	Develop and implement a robust programme of measurement of coastal change secure in the long term, to underpin delivery of NHCP and other coastal management actions. Outputs should also be used to validate and update SMPs.	pressure/threat relating to flood and coastal erosion risk management logged against them at site level, including Lagoons	National public, LIFE, EMFF, INTERREG, Horizon 2020
<b>Measures to address marine litter pressures and threats</b>			
12/13 Conservation management for habitats/species	Implement the Marine Strategy Framework Directive Programme of Measures and Programme of Monitoring for Descriptor 10 (Marine Litter).	The following features have 2 or more instances of pressures/threats associated with marine litter logged against them at site level. (Features are shown in numerical order)  Atlantic salt meadows Estuaries Intertidal mudflats and sandflats Grey seal Shallow inlets and bays Reefs Subtidal sandbanks Lagoons Sea caves Bottlenose dolphin  A further 14 features have one pressure/threat relating to marine litter logged against them at site level.	National public, ERDF, EMFF; ESF, LIFE, National public, Private
5. Preparation of management plans strategies and schemes	Develop a Welsh strategy for N2K sites building upon the MSFD measures to address marine litter in collaboration with key partners.		National public
5 Preparation of scientific studies and investigations	Develop evidence base to support management of marine litter and the marine litter strategy.		National public, Horizon 2020, Private

*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*

#### G.1.d Priority Measures for Natura 2000 wetlands habitats and species (including peatlands)

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources*
Measures to address man-made changes to hydraulic conditions pressures and threats			
Dominant measures on N2K sites		The following features have 5 or more instances of pressures/ threats associated with changes to hydraulic conditions logged against them (in numerical order): <ul style="list-style-type: none"><li>• Blanket bog</li><li>• Degraded raised bogs</li><li>• Otter</li><li>• Atlantic salmon</li><li>• River lamprey</li><li>• Calcium-rich springwater-fed fens</li><li>• Brook lamprey</li><li>• Bullhead</li><li>• Calcium-rich fen dominated by great fen sedge</li><li>• Purple moor-grass meadows</li><li>• Sea lamprey</li><li>• Active raised bogs</li><li>• Humid dune slacks</li><li>• Dunes with creeping willow</li><li>• Freshwater pearl mussel</li><li>• Rivers with floating vegetation often dominated by water-</li></ul>	
12, 13 Conservation management measures	Deliver 123 direct management actions.		EAFRD; ERDF, ESF, LIFE, National public, Private
5 Preparation of scientific studies & investigations	Carry out 114 investigation actions.		National public, LIFE, Horizon 2020. Private
15 Management schemes and agreements with owners and managers	Enter into 82 NRW Management Agreements.		National public
Strategic measures			
Integration	Continue integration of N2K needs into NRW Flood Risk Management (FRM) Plans and Local Authority FRM Programme, delivering multiple benefits through FRM operations.		National public
Integration	Revise Glastir agri-environment scheme to better support and prioritise N2K wetlands/peatlands conservation management and water level		National public



	management.	crowfoot	
Innovative approach	Develop a strategic and innovative approach for tackling difficult, entrenched issues on N2K sites connected to raising water levels and its detrimental effect on neighbours and tenants.	<ul style="list-style-type: none"> <li>• Floating water plantain</li> <li>• Wet heathland with cross-leaved heath</li> <li>• Calcium-rich nutrient-poor lakes, lochs and pools</li> </ul>	National public, LIFE
<b>12, 13</b> Conservation management measures	Support the development and delivery of at least one major externally funded project on key lowland wetland sites which are failing to reach favourable condition based on hydrological issues.	<ul style="list-style-type: none"> <li>• Fen orchid</li> <li>• Petalwort</li> <li>• Very wet mires often identified by an unstable ‘quaking’ surface</li> </ul>	National public, LIFE, EAFRD; ERDF, ESF, LIFE, Private sources
<b>12, 13</b> Conservation management measures	Support the delivery of the Welsh Government National Peatland Restoration Programme.	<ul style="list-style-type: none"> <li>• Naturally nutrient-rich lakes or lochs</li> <li>• Geyer’s whorl snail</li> <li>• Twaite shad</li> <li>• Southern damselfly</li> </ul>	National public, LIFE,
Various	<p>Emphasise natural processes, river restoration and green engineering principles, when undertaking flood risk and other river management on N2K rivers, by:-</p> <ul style="list-style-type: none"> <li>a) Developing a Wales-wide policy to this effect</li> <li>b) Amending legislation where necessary</li> <li>c) Producing guidance, case studies and delivering training for practitioners.</li> <li>d) Apply policy to NRW and LA consents and direct management.</li> <li>e) Investigate current information (and identify gaps in knowledge) in order to assess the</li> </ul>	<ul style="list-style-type: none"> <li>• Depressions on peat substrate</li> <li>• Allis shad</li> <li>• Marsh fritillary butterfly</li> </ul> <p>A further 26 features have one pressure/threat relating to changes to hydraulic conditions logged against them.</p>	National public,

	effectiveness of hard engineering flood risk measures in comparison to other flood risk measures within N2K sites/catchments.		
<b>12,13</b> Conservation management measures	Support the development and delivery of at least one major longer-term large-scale N2K river restoration/re-wilding project on a significant catchment(s) in Wales to rehabilitate historic damage and restore to natural functioning (flow, form, function and flood plain) by undertaking river restoration and/or removal of partial/full barriers to migration.		LIFE, National public, Private
<b>5.</b> Preparation of management plans, strategies and schemes	Develop a river restoration plan for all SAC rivers (which do not have one), within a Wales-wide strategic framework.		LIFE, National public
<b>See also measures to address pressures and threats from</b> <ul style="list-style-type: none"> <li>- alien invasive species</li> <li>- diffuse pollution pressures</li> <li>- access and recreation</li> <li>- air pollution</li> <li>- climate change and habitat fragmentation</li> </ul>			

*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*

### G.1.e Priority Measures for Natura 2000 to address alien invasive species

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources
General measures – relating to marine, terrestrial and freshwater N2K habitats and species			
Dominant site-based actions		See below	
12,13 Conservation management measures	Carry out 225 direct management actions.		National public, Private, LIFE, EMFF, INTERREG, ESF
15 Management schemes and agreements with owners & managers of land or water	Enter into 135 NRW Management Agreements.		National public
5 Preparation of scientific studies and investigations	Carry out 122 investigations.		National public, Private LIFE, EMFF, INTERREG, ESF, Horizon 2020
19 Site surveillance	Undertake risk surveillance (54 actions )		National public, Private
18 Risk management	Undertake biosecurity measures (31 actions)		National public, Private
21 Training and education	Undertake targeted education, awareness raising and liaison (8 actions)		National public, Private LIFE, EMFF, INTERREG, ESF
Strategic measures			
21 Training and education	Develop and promote the adoption of codes of conduct and biosecurity initiatives, and raise awareness of impacts of INNS on N2K features.		National public, LIFE, EMFF, INTERREG
Changes to policy & legislation	Integrate biosecurity best practice into appropriate regulatory regimes, to ensure that		National public

	risks to N2K features posed by INNS are effectively managed.		
<b>5</b> Preparation of scientific studies and investigations	Support research into effective control and eradication methods for INNS (marine, terrestrial and freshwater) with significant impacts on N2K.		National public, LIFE, EMFF, INTERREG, Horizon 2020
Changes to policy and legislation	Ensure that NRW is in a position to make use of Species Control Orders and Species Control Agreements (Infrastructure Act 2015), and that local councils and the police use Community Protection Notices (Anti-Social Behaviour, Crime and Policing Act 2014) to help facilitate control of invasive species.		National public
<b>Measures to address invasive species in the freshwater and terrestrial environment</b>			
<b>5.</b> Preparation of management plans, strategies and schemes	Produce area-based long term management plans for INNS eradication/control for N2K sites at particular risk of INNS.	The following features have 10 or more instances of pressures/threats associated with invasive species logged against them. (This includes native and non-native invasives and pathogens.) (in numerical order):  <ul style="list-style-type: none"> <li>• Dry heath</li> <li>• Mixed woodland on base-rich soils associated with rocky slopes</li> <li>• Western acidic oak woodland</li> <li>• Great crested newt</li> </ul>	LIFE, EMFF, INTERREG, ESF
<b>12,13</b> Conservation management measures	Implement and support existing and new projects/initiatives in support of area-based plans for INNS eradication/control for N2K sites (see above action).		LIFE, EMFF, INTERREG, ESF

		<ul style="list-style-type: none"> <li>• Dry grasslands and scrublands on chalk or limestone</li> <li>• Alluvial forest</li> <li>• Blanket bog</li> <li>• Humid dune slacks</li> <li>• Rivers with floating vegetation often dominated by water-crowfoot</li> <li>• Degraded raised bogs</li> <li>• Atlantic salmon</li> <li>• Purple moor-grass meadows</li> <li>• Dunes with creeping willow</li> <li>• Dune grassland</li> <li>• Vegetated sea cliffs</li> <li>• River lamprey</li> <li>• Otter</li> <li>• Grasslands on soils rich in heavy metals</li> <li>• Shifting dunes with marram</li> <li>• Brook lamprey</li> <li>• Sea lamprey</li> </ul> <p>A further 47 features have a lower number of pressures/threats relating to changes to invasive species logged against them, including White clawed crayfish.</p>	
<b>Measures to address invasive species in the marine environment</b>			
<b>5</b> Preparation of scientific studies and investigations	Investigate pathways and vectors of spread of INNS within N2K sites to underpin the development of Site and Network Action Plans	The following features have 2 or more instances of issues/risks associated with invasive species	National public, LIFE, EMFF, INTERREG, Horizon 2020

	(see action below).	logged against them. (This includes native and non-native invasives and pathogens.) (in numerical order):	
<b>5</b> Preparation of scientific studies and investigations	Develop N2K Site and Network Action Plans (including pathways actions and species actions) for all marine N2K sites, using baseline evidence developed in the action above	<ul style="list-style-type: none"> <li>• Atlantic salmon</li> <li>• Sea lamprey</li> <li>• Reefs</li> <li>• Intertidal mudflats and sand flats</li> <li>• Atlantic salt meadows</li> <li>• Estuaries</li> <li>• Shallow inlets and bays</li> <li>• Sub-tidal sandbanks</li> <li>• Coastal lagoons</li> <li>• Sea cave</li> </ul> <p>A further 2 features have one pressure/threat relating to invasive species logged against them</p>	National public, LIFE, EMFF, INTERREG, Horizon 2020

*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*

### G.1.f Priority Measures for Natura 2000 to address diffuse water pollution in the marine and freshwater environment

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources*
<b>Dominant measures on N2K sites</b>		<p>The following features have 5 or more instances of pressures/threats associated with diffuse water pollution (in numerical order):</p> <ul style="list-style-type: none"> <li>• Otter</li> <li>• River lamprey</li> <li>• Calcium-rich springwater-fed fens</li> <li>• Brook lamprey</li> <li>• Bullhead</li> <li>• Sea lamprey</li> <li>• Rivers with floating vegetation often dominated by water-crowfoot</li> <li>• Calcium-rich fen dominated by great fen sedge</li> <li>• Atlantic salmon</li> <li>• Reefs</li> <li>• Purple moor-grass meadows</li> <li>• Twaite shad</li> <li>• Marsh fritillary butterfly</li> <li>• Wet heathland with cross-leaved heath</li> <li>• Calcium-rich nutrient-poor lakes, lochs and pools</li> <li>• Geyer's whorl snail</li> <li>• Grey seal</li> </ul>	
<b>5</b> Preparation of scientific studies and investigations	Undertake 78 investigations.		LIFE, ERDF, EAFRD, ESF, National public, Private, Horizon 2020
<b>12,13</b> Conservation management measures	Carry out 40 direct management actions.		LIFE, ERDF, EAFRD, ESF, National public, Private
<b>15</b> Management schemes and agreements with owners & managers of land or water	Enter into 24 NRW Management agreement.		National public
<b>15</b> Management schemes and agreements with owners & managers of land or water	Enter into 19 Glastir agri-environment scheme agreements (19)		EAFRD, National public
<b>Strategic measures</b>			
Integration	Integrate Natural Resources Wales work to investigate diffuse pollution with Welsh Government's work on cross-compliance.		National public
<b>5</b> Preparation of scientific studies & investigations	Carry out risk assessment of agricultural holdings using a standardised procedure.  Use the risk assessment to identify and prioritise action on holdings.		National public, Horizon 2020



5 Preparation of scientific studies & investigations	<p>Review and appraise existing non-legislative mechanisms used to address diffuse pollution issues on agricultural holdings which impact N2K features.</p> <p>Identify, improvements to existing mechanisms or potential new mechanisms, and where appropriate investigate, trial and monitor effectiveness of new/improved mechanisms.</p>	<ul style="list-style-type: none"> <li>• Naturally nutrient-rich lakes or lochs which are often dominated by pondweed</li> <li>• Very wet mires often identified by an unstable ‘quaking’ surface</li> <li>• Southern damselfly</li> <li>• Allis shad</li> <li>• Sea caves</li> <li>• Estuaries</li> <li>• Intertidal mudflats and sandflats</li> <li>• Freshwater pearl mussel</li> <li>• Create crested newt</li> <li>• Atlantic salt meadows</li> </ul>	National public
5 Preparation of scientific studies & investigations	<p>Review and appraise relevant legislation and policy used to control diffuse pollution on N2K sites.</p> <p>Identify and where possible implement changes to improve effectiveness.</p>		National public
5 Preparation of scientific studies & investigations	Carry out desk based study of approaches to reduce and manage diffuse pollution from agriculture in other parts of the UK and Europe focusing on N2K sites.	<p>A further 35 features have fewer pressure/threats relating to diffuse water pollution logged against them including Turlough and White clawed crayfish.</p>	National public, Horizon 2020
Integration	Seek to strengthen integration between agri-environment prescriptions and targets and N2K objectives on farms on N2K sites in order to reduce diffuse pollution impacts on N2K terrestrial, freshwater and marine features.		National public
5 Preparation of scientific studies & investigations	<p>Review water quality monitoring to ensure that it is adequately targeted to be able to ascertain whether N2K features are reaching the targets set for favourable condition.</p> <p>Investigate the use of smarter monitoring to</p>		National public

	establish sources of pollution (e.g. using nitrate isotopes).		
<b>5</b> Preparation of scientific studies & investigations	Assess the sensitivity and vulnerability of marine N2K features to water pollution.  Use this to determine whether current water and sediment quality standards used for existing NRW statutory duties are fit-for-purpose. Review and update if required.		Horizon 2020, LIFE, INTERREG, National public
<b>5</b> Preparation of scientific studies & investigations	Map the location of registered and non-registered private sewage treatment plants within the catchments of N2K sites where diffuse pollution is a high priority issue.  Target high risk plants for further investigation, monitoring, and where necessary enforcement.		National public
<b>12,13</b> Conservation management measures	Carry out a scoping study for at least one targeted externally-funded project bid to address diffuse pollution issues across N2K site catchments for N2K lowland wetlands and lakes or rivers.		LIFE, ERDF, EAFRD, ESF, National public, Private

*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*

### G.1.d Priority Measures for Natura 2000 to address air pollution: atmospheric nitrogen

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources
5 Preparation of management, plans, strategies & schemes	Influence NRW permitting advisory roles (e.g. under Industrial Emissions Directive and local planning) in order to reduce the levels of atmospheric nitrogen affecting N2K sites.	The following features have 5 or more instances of pressures/threats associated with air pollution (in numerical order):	National public
5 Preparation of management, plans, strategies & schemes	Review policies to identify changes required to reduce the levels of atmospheric nitrogen affecting N2K sites. Review funding for rural agriculture developments where air quality is an issue (e.g. for new poultry developments) which are likely to affect N2K sites.	<ul style="list-style-type: none"> <li>• Dry heaths</li> <li>• Mixed woodland on base-rich soils with rocky slopes</li> <li>• Marsh fritillary butterfly</li> <li>• Western acidic oak woodland</li> <li>• Purple moor-grass meadows</li> <li>• Wet heathland with cross-leaved heath</li> </ul>	National public
5 Preparation of management, plans, strategies & schemes	Identify and set air pollution objectives and targets for the restoration of N2K sites.	<ul style="list-style-type: none"> <li>• Blanket bog</li> <li>• Active raised bogs</li> </ul>	National public
5 Preparation of management, plans, strategies & schemes	Develop an integrated NRW diffuse pollution strategy to include diffuse air pollution impacts.	<ul style="list-style-type: none"> <li>• Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels</li> </ul>	National public
Innovative measure	Produce Site Nitrogen Action Plans for N2K sites.  Initially trial the approach on two pilot sites, followed by a roll-out across all N2K sites adversely affected by atmospheric nitrogen.	<ul style="list-style-type: none"> <li>• Very wet mires often identified by an unstable 'quaking' surface</li> <li>• Calcium-rich springwater-fed fens</li> <li>• Atlantic salt meadows</li> <li>• Plants in crevices in base-rich rocks</li> <li>• Depressions on peat substrates</li> <li>• Estuaries</li> <li>• Humid dune slacks</li> </ul>	LIFE, ERDF, ESF, National public, Private
12,13 Conservation	Scope and develop a potential bid for a major		LIFE, ERDF, ESF, National

management measures	externally funded sand dune restoration project.	<ul style="list-style-type: none"> <li>• Lesser horseshoe bat</li> <li>• Dry grasslands and scrublands on chalk or limestone</li> </ul> <p>A further 53 features have fewer issues/risks relating to diffuse air pollution logged against them.</p>	public, Private
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*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*

#### **G.1.g Priority Measures for Natura 2000 to address access and recreation pressures and threats**

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources
<b>Dominant measures on N2K sites</b>		<p>The following features have 5 or more instances of pressures/threats associated with access and recreation impacts (in numerical order):</p> <ul style="list-style-type: none"> <li>• Dry heaths</li> <li>• Lesser horseshoe bat</li> <li>• Blanket bog</li> <li>• Mixed woodland on base-rich soils with rocky slopes</li> <li>• Atlantic salt meadows</li> <li>• Wet heathland with cross-leaved heath</li> <li>• Humid dune slacks</li> <li>• Reefs</li> <li>• Alpine and subalpine heaths</li> <li>• Grasslands on soils rich in</li> </ul>	
<b>12,13</b> Conservation management measures	Undertake 95 direct management actions		LIFE, ERDF, EAFRD, ESF, National public, Private
<b>5</b> Preparation of scientific studies & investigations	Carry out 76 investigations.		LIFE, ERDF, EAFRD, ESF, National public, Private, Horizon 2020
Enforcement	Undertake 36 enforcement actions.		National public
<b>21</b> Training & education	Undertake 29 targeted education, awareness raising and liaison actions.		LIFE, ERDF, EAFRD, ESF, National public, Private
<b>19</b> Site surveillance	Undertake 15 risk surveillance actions.		National public, Private
<b>15</b> Implementation of management schemes &	Enter into 10 NRW Management Agreements.		National public

agreements with owners and managers		heavy metals	
<b>Strategic measures</b>		<ul style="list-style-type: none"> <li>• Beach forests on neutral to rich soils</li> <li>• Intertidal mudflats and sandflats</li> <li>• Shifting dunes with marram</li> <li>• Western acidic oak woodland</li> <li>• Dry grasslands and scrublands on chalk or limestone</li> <li>• Estuaries</li> <li>• Otter</li> <li>• Dunes with creeping willow</li> <li>• Shallow inlets and bays</li> <li>• Atlantic salmon</li> <li>• Petalwort</li> <li>• Glasswort and other annuals colonising mud and sand</li> <li>• Grey seal</li> <li>• Great crested newt</li> <li>• Plants in crevices on base-rich rocks</li> <li>• Plants in crevices on acid rocks</li> <li>• Purple moor-grass meadows</li> <li>• Shifting dunes</li> <li>• Tall herb communities</li> </ul>	
<b>5</b> Preparation of management, plans, strategies & schemes	Develop a consistent methodology for site-based survey of recreation users and visitors on N2K sites.		National public
<b>5</b> Preparation of scientific studies & investigations	Develop evidence on the impact of access and recreational activities on N2K habitats and species.  Focus on N2K features identified as high and medium priority for further action for access and recreation issues in the LIFE N2K Programme data.		National public, Private, Horizon 2020, LIFE
<b>5</b> Preparation of management, plans, strategies & schemes	Develop a decision-making framework for interventions around access and recreational activities on N2K features.		National public
<b>8</b> Review of management plans, strategies & schemes	Feed in specific information about access and recreation impacts to SAC/SPA Core Management Plans/S.35 advice and European Marine Site Management Schemes as appropriate		National public
<b>20</b> Provision of information & publicity material	Continue to develop, facilitate and promote a strategic suite of activity-based guidance and training to help recreational users minimise their impacts on N2K features.	A further 57 features have fewer pressures/threats relating to access and recreation logged against them.	LIFE, ERDF, EAFRD, ESF, National public, Private

*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*

## G.2 Other priority measures

### G.2.a Priority Measures for securing ecosystem benefits of Natura 2000, especially in relation to climate change mitigation and adaptation including the promotion of habitat connectivity

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources*
<b>Measures relating to climate change</b>			
Integration with and delivery of legislation and national policy	Ensure that needs relating to N2K sites and climate change are fully integrated within the implementation of the Wales Future Generations Act; Environment Bill; WG Natural Environment Sectoral Adaptation Plan and Nature Recovery Plan as part of ecosystem resilience.	Features with High Climate Change Vulnerability and affected by 4 or more instances of pressures or threats which are highly exacerbated by climate change are shown below: <ul style="list-style-type: none"> <li>• Blanket bog</li> <li>• Purple moor-grass meadows</li> <li>• Degraded raised bogs</li> <li>• Calcium-rich springwater-fed fens</li> <li>• Intertidal mudflats and sandflats</li> <li>• Atlantic salt meadows</li> <li>• Petalwort</li> <li>• Calcium-rich fen dominated by great fen sedge -saw sedge-</li> </ul>	National public
<b>5</b> Preparation of management, plans, strategies & schemes	Develop a programme of terrestrial and coastal habitat creation/restoration outside N2K site boundaries to enlarge sites (buffer zones) and promote connectivity (corridors and stepping stones) to improve resilience and allow dispersal of features in response to climate change on vulnerable sites.	<ul style="list-style-type: none"> <li>• Active raised bogs</li> <li>• Western acidic oak woodland</li> <li>• Mixed woodland on base-rich soils associated with rocky slopes</li> <li>• Calcium-rich nutrient-poor lakes, lochs and pools</li> </ul>	EAFRD, LIFE National public, Private
<b>20</b> Provision of information & publicity material	Produce Welsh strategic climate change approach and guidance for managing highly vulnerable N2K species, habitats and sites.		National public

		<ul style="list-style-type: none"> <li>• Depressions on peat substrates</li> <li>• Shifting dunes</li> <li>• Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels</li> <li>• Naturally nutrient-rich lakes or lochs which are often dominated by pondweed</li> <li>• Pintail</li> <li>• Oystercatcher</li> <li>• Lagoons</li> <li>• Freshwater pearl mussel</li> <li>• Bog Woodland</li> <li>• Hard-water springs depositing lime</li> </ul>	
<b>Measures relating to addressing habitat fragmentation and promoting connectivity</b>			
<b>5</b> Preparation of scientific studies & investigations	Complete habitat and species network/connectivity mapping for all/groups of N2K habitats and species.		National public, Horizon 2020
<b>5</b> Preparation of management, plans, strategies & schemes	Ensure incorporation of habitat and species network/connectivity maps (see action 1) into current policy and programme framework focusing around N2K network.		National public
<b>12,13</b> Conservation management measures	Target new woodland creation to improve SAC woodland resilience.		LIFE, ERDF, EAFRD, ESF, National public, Private

*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*



**G.2.b Priority Measures for promoting sustainable tourism and employment in relation to Natura 2000 and for promoting communication and education measures**

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources*
<b>Communication and education measures</b>			
<b>21</b> Training & education	Deliver a programme of training for professionals (site officers, decision-makers, stakeholders) to fill gaps in skills and knowledge relating to N2K management.	All	ERDF, ESF, EAFRD, National public, private
<b>21</b> Training & education	Develop the teaching of N2K conservation within agricultural colleges, particularly via training the tutors approach.	All	LIFE, ERDF, EAFRD, ESF, National public, Private
<b>21</b> Training & education	Deliver programme for landowners and farmers to raise awareness and understanding of conservation techniques applicable to farm management.	All	LIFE, ERDF, EAFRD, ESF, National public, Private
<b>20</b> Provision of information & publicity material	Deliver a campaign to raise awareness of N2K, promote the network of sites and highlight their conservation importance and economic, social and cultural value to the people of Wales.	All	LIFE, ERDF, EAFRD, ESF, National public, Private
<b>21</b> Training & education	Scope and develop a bid to an external fund for a major N2K communication and education project, to deliver actions shown above and other relevant actions in PIPs/Thematic Action Plans.	All	LIFE, National public

*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*

### **G.2.c Priority Measures to promote innovative approaches in relation to Natura 2000**

Type of activity	Description of measure	Target species/habitats/sites	Potential financing sources*
	Innovative approaches are included in tables above and marked as such in the Type of activity column.		

*\*Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources*

### **G.3 Summary table of priority measures per habitat type and species**

**See associated Excel Spreadsheet**

## **Section H: Monitoring, evaluation and updating of PAFs**

### **Monitoring of outcomes (condition of N2K features)**

NRW will continue to undertake monitoring of N2K features to update condition assessments. Monitoring information will be used to measure the outcome of delivered actions, and will be used to inform Article 17 reporting (due in 2018) and Article 12 reporting.

The State of Natural Resources Report (SONaRR) will also report on key environmental indicators in Wales.

### **Monitoring of progress delivering actions/measures**

As actions are underway or completed, these will be logged as such in the NRW Actions Database. Progress is reported on an annual basis. New actions will be logged on an ongoing basis.

Output delivered by NRW under the corporate and business plan are also reported upon via the corporate 'dashboard'.

The Welsh Government Nature Recovery Plan will include performance indicators in response to EU biodiversity targets.

### **Updating of the PAF**

**Refreshment:** The aspiration is to refresh the PAF every three years. The next refreshment would be completed by 2018, in time to inform the development of the 2020-27 round of EU funding Programmes. The refreshment is not intended to be resource-intensive, and will involve:

- Assessment of progress on delivering actions/measures;
- Updating of PIPs, Thematic Action Plans and Cross-cutting Plans (e.g. addition of new actions where available, regrading of action priorities in cases where high priority actions have already been completed), and amending the PAF to this effect;
- Updating factual elements of the PAF relating to, for example, legislative and policy changes, condition assessment of features etc.

**Full revision:** The aspiration is to fully revise the PAF every six years. The next full review would be due to be completed by 2021. This would be compatible with the timetable for the completion of the Third Cycle of the Water Framework Directive River Basin Management Plan (RBMP) cycle (also due in 2021).

It is recommended that the PAF full revision and RBMP is integrated as far as possible, to avoid duplication of work and maximise efficiencies and synergies.

The full review will include:

- Assessment of progress on achieving measures laid out in PAF;
- Full review and updating of PIPs and Thematic Action Plans and Cross-cutting Plans
- Evaluation of funding sources actually achieved vs. planned;
- Review of format and content (whether they are user friendly and fit-for-purpose);
- Appraisal of level of integration of the PAF into operational plans and business plans (including NGOs, LA, Crown Estate, MOD, utilities);
- Non-planned opportunistic delivery of actions.

## **Appendices:**

The following appendices are provided in separate documents.

- Appendix A
- i. Special Areas of Conservation in Wales
  - ii. Habitat Features of Special Areas of Conservation in Wales
  - iii. Annex II Species Features of Special Areas of Conservation in Wales
  - iv. Special Protection Areas in Wales
  - v. Annex I and regularly occurring migratory species of Special Protection Areas in Wales
  - vi. Natura 2000 sites and 20% most deprived areas in Wales

Appendix B. LIFE Natura 2000 Programme: Approach to Prioritisation