



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

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

For the EU Multiannual Financing Period 2014-2020

NORTHERN IRELAND

(Master Version 7: 20 December 2012)

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 for which Natura 2000 sites are designated

The UK as a whole hosts 81 habitat types of Annex I and 44 species of Annex II under the Habitats Directive. Among those habitats and species, UK has 23 priority habitat types and 3 priority species under the terms of the Habitats Directive.

By contrast, Northern Ireland hosts 52 habitat types of Annex I and 19 species on Annex II under the Habitats Directive. However, including species in Annex IV and V, there are 46 species of community interest (SCIs) in NI and its territorial waters... Northern Ireland has 22 priority habitat types but no priority species. (See Appendix I and II of this report for more detailed information).

Northern Ireland has designated SPAs for 27 Annex I and other regularly occurring migratory species under the Birds Directive. NI has 25 species which are included as SPA Assemblage features (Appendix 3).

Northern Ireland published a Strategy for Surveillance and Monitoring of European Protected Habitats and Species in Northern Ireland in October 2010 which describes the particular situation regarding priority habitats and species and provides an assessment of the importance of Northern Ireland for particular habitats and species. This can be found at: [A Strategy for Surveillance and Monitoring of European Protected Habitats and Species in Northern Ireland \(.PDF5.54Mb\)](#).

The Northern Ireland Biodiversity Group has published a list of priority species which require conservation action because of their decline, rarity and importance. The species list stands at 481. The full list can be viewed at: http://www.doeni.gov.uk/niea/northern_ireland_priority_species_list.pdf

European Species of Community Interest (SCIs) that are also Northern Ireland priority species (and the Habitats Directive Annex where they are listed) are:

Austropotamobius pallipes White-clawed crayfish II & V

Balaenoptera acutorostrata Minke whale IV

Balaenoptera physalus Fin whale IV

Cladonia peziziformis A lichen V

Coregonus autumnalis pollan Pollan V

Delphinus delphis Common dolphin IV

Dermochelys coriacea Leatherback Turtle IV

Eurodryas aurinia Marsh Fritillary II

Globicephala melas Pilot whale IV

Grampus griseus Risso's dolphin IV

Lampetra fluviatilis River Lamprey II & V

Lepus timidus hibernicus Irish Hare V

Lutra lutra Otter II

Lycopodiella inundata Marsh clubmoss V

Margaritifera margaritifera Freshwater Pearl Mussel II & V

Martes martes Pine Marten V
Orcinus orca Killer whale IV
Petalophyllum ralfsii Petalwort II
Phoca vitulina Common Seal II & V
Phocoena phocoena Harbour Porpoise II & IV
Phymatolithon calcareum Maërl V
Pipistrellus nathusii Nathusius' pipistrelle IV
Pipistrellus pygmaeus Soprano pipistrelle bat IV
Plecotus auritus Brown Long-eared Bat IV
Salmo salar Atlantic salmon II & V
Saxifraga hirculus Yellow Marsh Saxifrage II & V
Trichomanes speciosum Killarney Fern II & IV
Tursiops truncatus Bottlenose dolphin II & IV
Vertigo angustior Narrow-mouthed Whorl Snail II
Vertigo geyeri A chrysalis snail II

It could be argued that for many of the habitats and species in NI they have only a minor importance due to our smaller geographical land area, territorial sea area or length of coastline compared with the UK as a whole.

Geographical metrics of NI compared to total UK:

Statistic	UK	NI	NI as % UK
Geographical area km ²	244,168	14,150	5.8
Coastline in km	17,818	650	3.6
Territorial sea area km ² (to 12 miles)	818,182	7,189	0.9

Conversely, it could equally be argued that NI has a special responsibility in that it is at the western edge of the range of European habitats and species because of the geographical isolation from GB and mainland Europe. A good example of this is the NI variant of the GB Mountain Hare, which indeed is now considered to be a separate species. Thus in NI and the RoI the hare is usually referred to as the Irish Hare and is threatened by interbreeding with the introduced brown hare (not a Species of Community Interest).

Habitats and species in NI considered of special responsibility are those that are clearly significant compared with the total area or numbers relative to NI's geographical metrics. The following tables list those habitats and species which have, by general agreement among specialists in NIEA, been considered to qualify as 'special'.

Habitats for which Northern Ireland has a special responsibility (* = priority habitat):

1. Large shallow inlets and bays. Significant (8%) proportion of UK total in NI
2. Atlantic decalcified fixed dunes *Calluno-Ulicetea*..* Significant (13%) proportion of UK total in NI
3. Turloughs Highly significant (86%) proportion of UK total in NI
4. Northern Atlantic wet heaths with *Erica tetralix*. Significant (12%) proportion of UK total in NI
5. *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils. Significant (12%) proportion of UK total in NI
6. Active raised bogs*. Significant (35%) proportion of UK total in NI

7. Degraded raised bogs still capable of natural regeneration. Significant (18%) proportion of UK total in NI
8. Blanket bogs*. Significant (6.4%) proportion of UK total in NI
9. Limestone pavements*. Significant (7.8%) proportion of UK total in NI

Species for which Northern Ireland has a special responsibility:

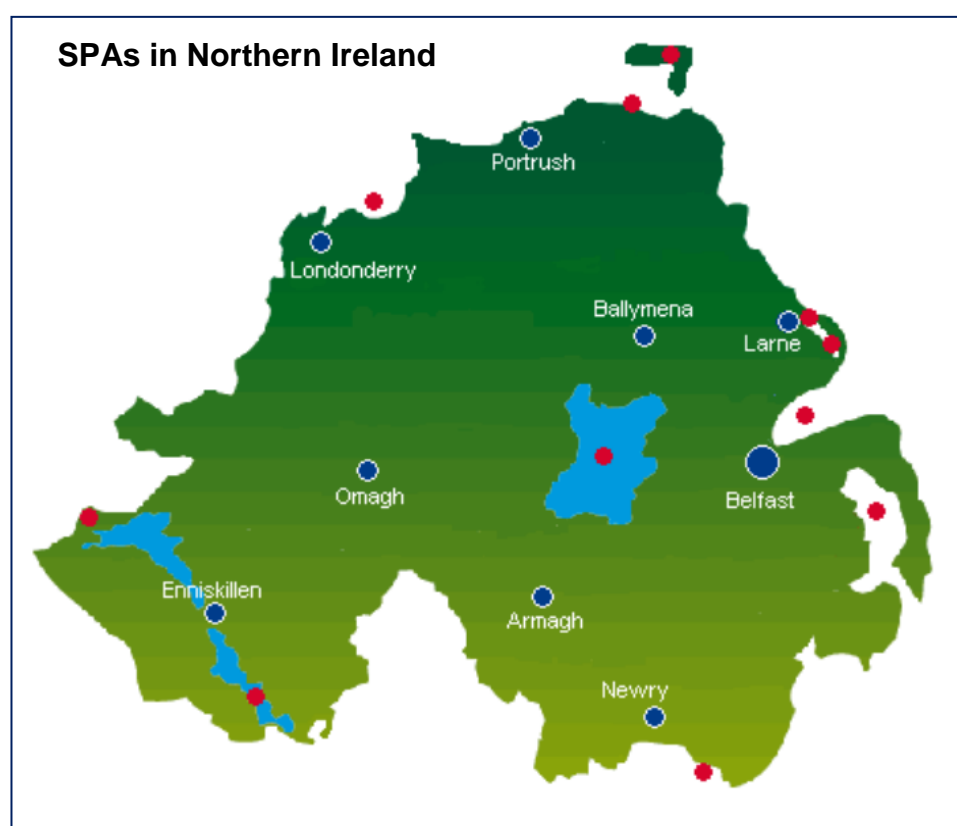
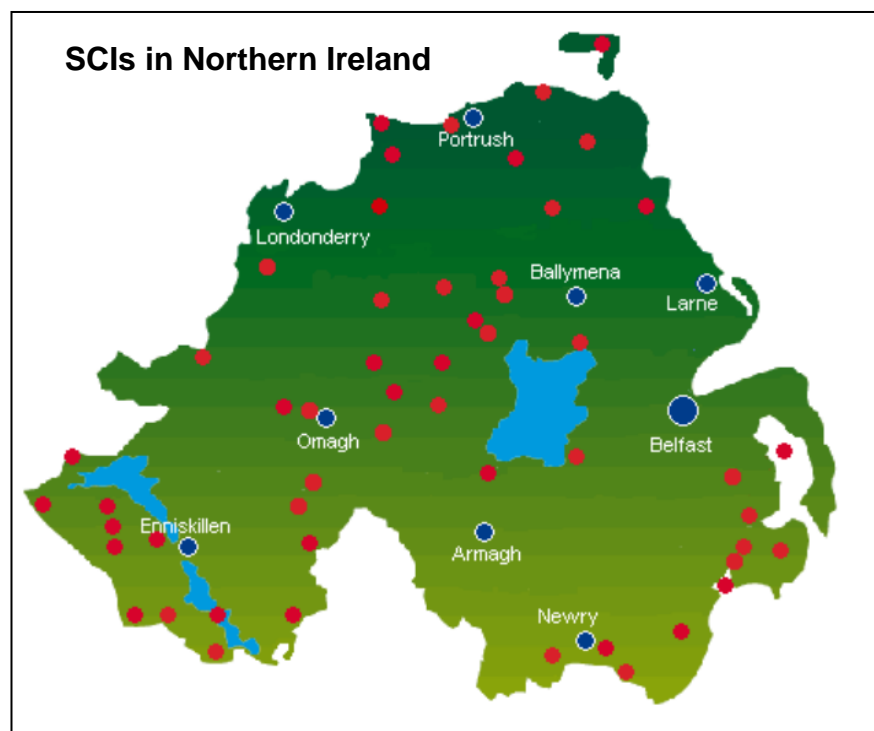
1. *Austropotamobius pallipes* White-clawed crayfish
2. *Coregonus spp. (C. autumnalis)* Pollan
3. *Euphydryas aurinia* Marsh fritillary butterfly
4. *Lepus timidus* Mountain hare = *Lepus hibernica* Irish hare
5. *Lithothamnium coralloides* Maerl
6. *Myotis daubentonii* Daubenton's bat
7. *Myotis mystacinus* Whiskered bat
8. *Myotis nattereri* Natterer's bat
9. *Nyctalus leisleri* Leisler's bat
10. *Phymatholithon calcareum* Maerl
11. *Pipistrellus nathusii* Nathusius' Pipistrelle
12. *Pipistrellus pipistrellus* Common Pipistrelle
13. *Pipistrellus pygmaeus* Soprano pipistrelle
14. *Plecotus auritus* Brown long-eared bat
15. *Salmo salar* Atlantic salmon
16. *Saxifraga hirculus* Marsh saxifrage
17. *Vertigo geyeri* Geyer's whorl snail

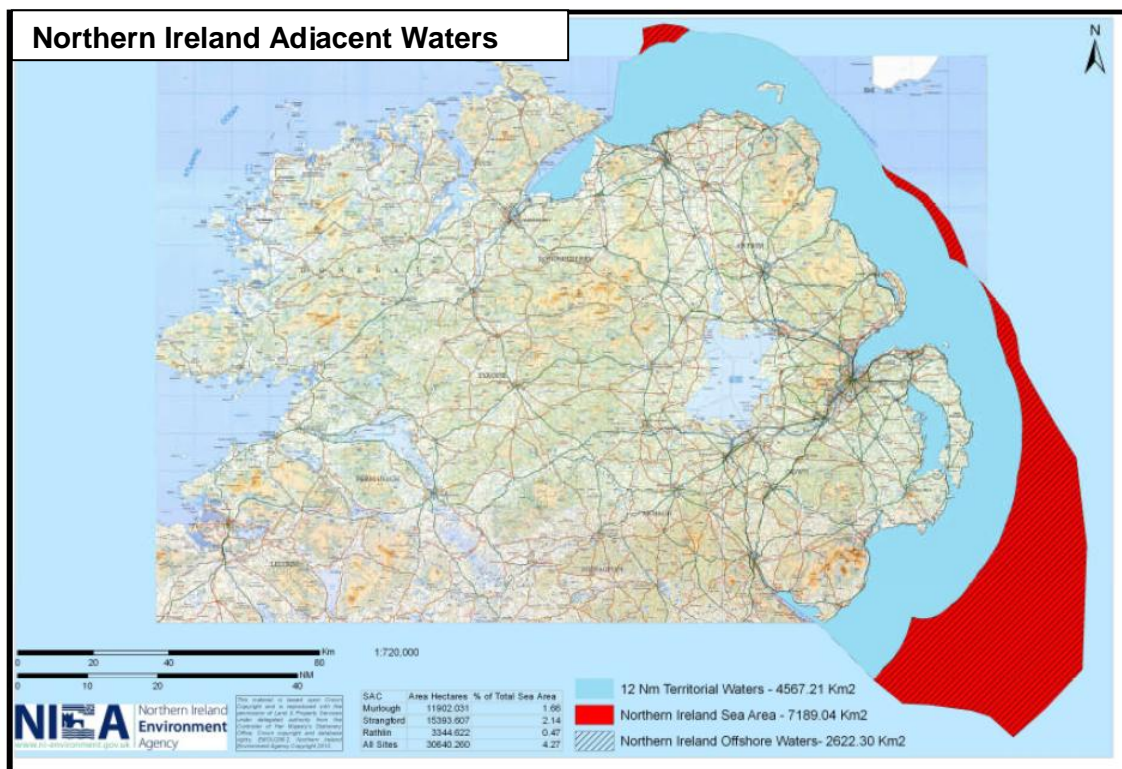
A.2 Number and area of Natura 2000 sites

Sites of Community Importance (SCIs)			
		UK	NI
	Total SCI sites	636	2
	Total SCI Area (km ²)	43	12.6
	Terrestrial SCI Area (km ²)	16.7	2.9
	Marine SCI area (km ²)	26.3	9.7
	% of National Area	6,8%	
Reference to Commission Decisions on SCIs	<p>Atlantic Region Commission Decisions:</p> <p><u>2011/63/EU</u> of 10 January 2011 adopting, pursuant to Council Directive 92/43/EEC, a fourth updated list of sites of Community importance for the Atlantic biogeographical region (notified under document number C(2010) 9666)</p> <p><u>2010/43/EU</u> of 22 December 2009 adopting, pursuant to Council Directive 92/43/EEC, a third updated list of sites of Community importance for the Atlantic biogeographical region (notified under document number C(2009) 10405)</p> <p><u>2009/96/EC</u> of 12 December 2008 adopting, pursuant to Council Directive 92/43/EEC, a second updated list of sites of Community importance for the Atlantic biogeographical region (notified under document number C(2008) 8119)</p> <p><u>2008/23/EC</u> of 12 November 2007 adopting, pursuant to Council Directive 92/43/EEC, a first updated list of sites of Community importance for the Atlantic biogeographical region (notified under document number C(2007) 8119)</p>		

	5396) 2004/813/EC of 7 December 2004 adopting, pursuant to Council Directive 92/43/EEC, the list of sites of Community importance for the Atlantic biogeographical region (notified under document number C(2004) 4032)																				
Special Areas of Conservation (SACs)	<table><tr><td></td><td>UK</td><td>NI</td></tr><tr><td>Total SAC sites</td><td></td><td>57</td></tr><tr><td>Total SAC Area (km²)</td><td></td><td>911</td></tr><tr><td>Terrestrial SAC Area (km²)</td><td></td><td></td></tr><tr><td>% of National Area</td><td></td><td></td></tr><tr><td>Marine SPA area (km²)</td><td></td><td></td></tr></table> <i>(from</i>				UK	NI	Total SAC sites		57	Total SAC Area (km²)		911	Terrestrial SAC Area (km²)			% of National Area			Marine SPA area (km²)		
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Special Protection Areas (SPAs)	<table><tr><td></td><td>UK</td><td>NI</td></tr><tr><td>Total SPA sites</td><td>262</td><td>16</td></tr><tr><td>Total SPA Area (km²)</td><td>23.898</td><td>1140</td></tr><tr><td>Terrestrial SPA Area (km²)</td><td>15.279</td><td></td></tr><tr><td>% of National Area</td><td>6,2%</td><td></td></tr><tr><td>Marine SPA area (km²)</td><td>8.619</td><td></td></tr></table> <i>(from</i>				UK	NI	Total SPA sites	262	16	Total SPA Area (km²)	23.898	1140	Terrestrial SPA Area (km²)	15.279		% of National Area	6,2%		Marine SPA area (km²)	8.619	
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Total Natura 2000 terrestrial area	<table><tr><td></td><td>UK</td><td>NI</td></tr><tr><td>Total Natura 2000 sites</td><td>898</td><td>73</td></tr><tr><td>Total Natura 2000 Area (km²)</td><td>54,474</td><td>2051</td></tr><tr><td>Terrestrial Natura 2000 Area (km²)</td><td>17,683</td><td>tba</td></tr><tr><td>% of National Area</td><td>7.2%</td><td>tba</td></tr><tr><td>Terrestrial Natura 2000 area (km²)</td><td>36,791</td><td>tba</td></tr></table>				UK	NI	Total Natura 2000 sites	898	73	Total Natura 2000 Area (km²)	54,474	2051	Terrestrial Natura 2000 Area (km²)	17,683	tba	% of National Area	7.2%	tba	Terrestrial Natura 2000 area (km²)	36,791	tba
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Total Natura 2000 marine area	<table><tr><td></td><td>UK</td><td>NI</td></tr><tr><td>Total Natura 2000 sites</td><td></td><td>18</td></tr><tr><td>Total Natura 2000 Area (km²)</td><td></td><td>tba</td></tr><tr><td>Marine Natura 2000 Area (km²)</td><td></td><td>tba</td></tr><tr><td>% of National Area</td><td></td><td>7%</td></tr><tr><td>Marine Natura 2000 area (km²)</td><td></td><td>tba</td></tr></table>				UK	NI	Total Natura 2000 sites		18	Total Natura 2000 Area (km²)		tba	Marine Natura 2000 Area (km²)		tba	% of National Area		7%	Marine Natura 2000 area (km²)		tba
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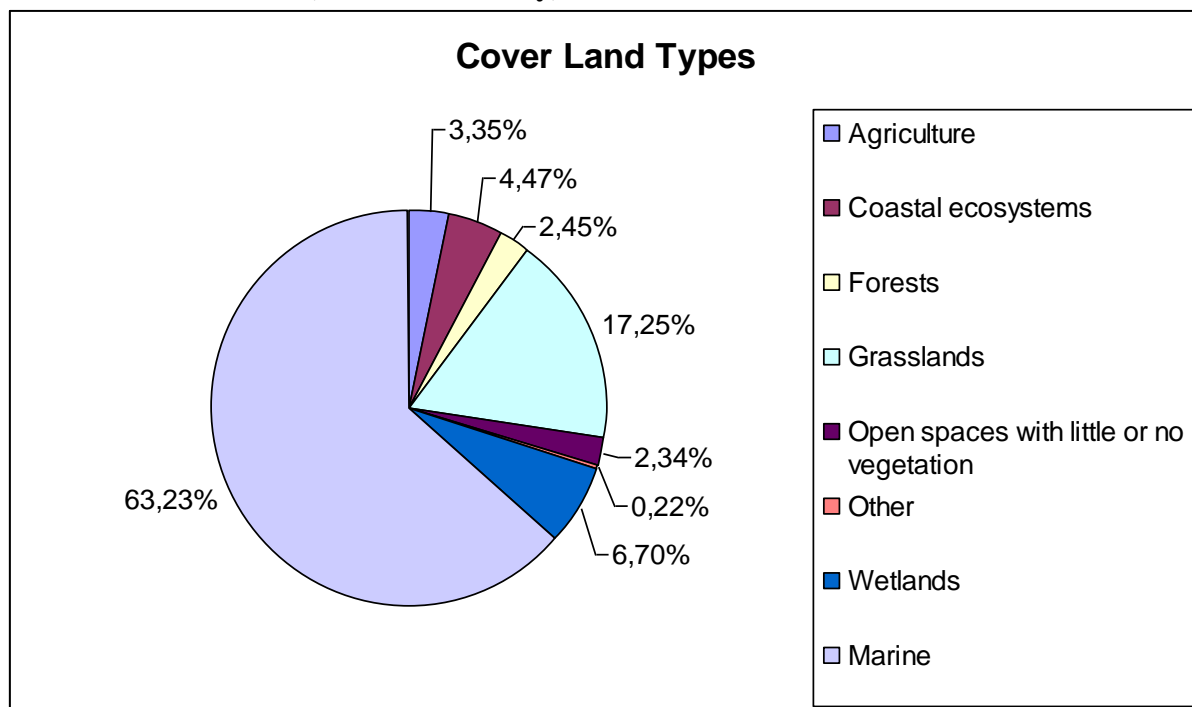


 Northern Ireland Territorial Waters (12 nm) 4567 km²

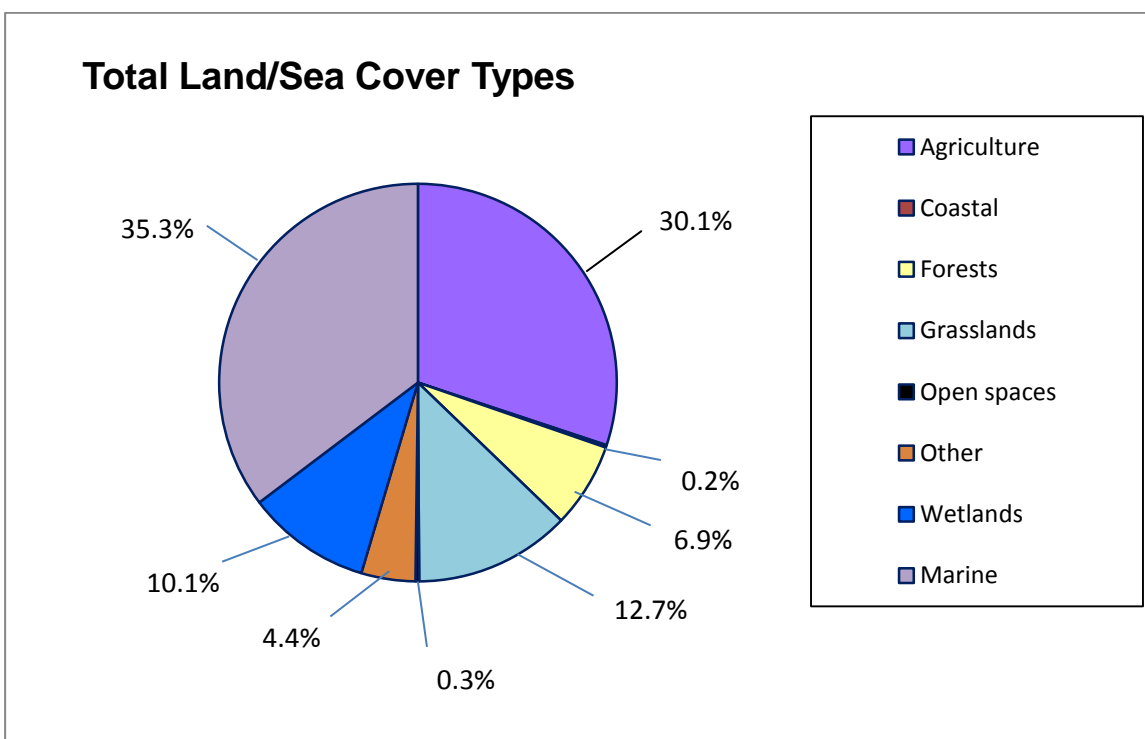
 Northern Ireland Offshore Waters 2262 km²

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

UNITED KINGDOM (Natura 2000 only)



NORTHERN IRELAND (all land and sea)



Northern Ireland Countryside Survey

Northern Ireland comprises a wide range of habitats such as woodland, bog and grasslands. They are important for biodiversity and ecosystem services. Since 1986, the University of Ulster has assessed changes in the type and extent of habitats with a field-based ecological research programme: the Northern Ireland Countryside Survey (NICS). The aim is to understand how land use and the environment influence habitats and their biodiversity and how habitats change with time. NICS provides a science-based record of habitat change that can be used as a measure of the effectiveness of biodiversity conservation and performance on environmental sustainability. NICS is structured on statistical sampling principles and standardized protocols for habitat field survey. Between 1986 and 1991, baseline habitat field survey was carried out in a sample set of quarter kilometre grid squares throughout NI. Habitat change was assessed by surveys in 1998 and 2007. Field mapping was with a Primary Habitat classification, defined by vegetation structure and species composition. The area of Primary Habitats was estimated from the sample squares by statistical analysis. Estimates of Broad Habitats, a classification constructed to communicate policy on habitat protection at a UK level, were also determined. The NICS 2007 report assesses habitat change between 1998 and 2007.

Habitat change

Key changes identified by NICS 1998 were loss of semi-natural habitats by conversion to agricultural grassland, damage to bog by peat cutting and detrimental effects of heavy grazing on heath and bog. Issues of habitat succession to scrub and woodland, a much decreased area of arable crops and increased rural building and were also identified. NICS 2007 showed that while there was continued semi-natural habitat loss compared with 1998, the rate of loss was lower. Agricultural conversion and rural building continued to be the main processes resulting in habitat loss. Scrub/woodland succession in open habitats was greater than in 1998. A trend to a smaller area of arable crops continued and a trend to more broadleaf tree planting on agricultural grassland was recorded. Widespread damage to bogs from peat cutting no longer occurred.

Conversion rates of neutral grassland to improved agricultural grassland recorded by NICS 1998 and NICS 2007 were high, but were smaller in NICS 2007. Conservation initiatives, a small area of semi-natural habitat remaining in lowland landscapes and physical constraints to habitat conversion are likely reasons for this.

A decrease in area of species-rich dry grassland, driven by scrub/woodland succession and conversion to more productive, less species-diverse agricultural grassland, continued a trend from NICS 1998. A high rate of agricultural conversion and a relative scarcity of high quality species-rich dry grassland, a habitat dependent on more traditional agricultural systems, suggest that sustaining grassland by conversion to productive agricultural grasslands reported by NICS 1998 was also recorded by NICS 2007 but the loss rate was lower.

Conversion of bent-fescue grassland and poor fen to agricultural grassland recorded by NICS 1998 and NICS 2007, indicates that agriculture is a key driver of semi-natural habitat loss in the marginal uplands. An increase in the area of mat-grass hill pasture and a decrease in the area of dry heath recorded by NICS 1998 (both heavy grazing pressure indicators) were no longer recorded by NICS 2007.

A large increase in the area of rural building recorded by NICS 2007 was almost twice that reported by NICS 1998. Building in both surveys was mainly over agricultural grassland, highlighting the issue of agricultural land loss. A wide range of semi-natural habitats were recorded by NICS 2007 as built over. The continued loss of semi-natural habitat by agricultural conversion and building, particularly in lowland landscapes, where the area of semi-natural habitats is small, is a key biodiversity issue.

An increased rate of scrub/woodland succession recorded by NICS 2007, continued the trend reported by NICS 1998. Succession was associated with species-rich grasslands, agricultural grasslands with management constraints, fragmented heath and bog edge vegetation. These habitats are at risk from succession. Their management is a key lowland habitat biodiversity issue.

As reported by NICS 1998, Forest Service conversion of species-rich wet grasslands to coniferous woodland continued. A Forest Service indicative map for new woodland planting shows much of the marginal uplands of NI as being available for new planting. The report highlights the considerable potential for conifer afforestation to reduce habitat diversity in the habitat-rich marginal uplands.

An increased rate of broadleaf tree planting on agricultural grasslands recorded by NICS 2007 is related to policy initiatives promoting farm woodland. There are likely to be long-term increases in woodland ground flora species if management includes biodiversity objectives. This is unlikely if management is for agro-forestry (i.e., integrated sheep and timber production). Land use change to willow biomass production for fuel (recorded for the first time by NICS 2007) is likely to put semi-natural habitats at risk.

The extent of bog (the largest semi-natural habitat in Northern Ireland), changed little between 1998 and 2007, compared with the decrease recorded by NICS 1998 (mainly by peat cutting). The reduction in peat cutting is linked to habitat conservation measures and to the largely favourable economics of oil fuel prices between 1998 and 2007, compared with peat cutting costs.

Habitat protection

The focus of government conservation policy on protecting and managing high-value habitats highlights the vulnerability of intermediate-value habitats which have no protection. These habitats contain much of the species diversity in the countryside. They also provide ecosystem services that provide food, materials and water, contribute to flood control and store carbon. They can be damaged or lost relatively quickly as land use and economic circumstances and land use change.

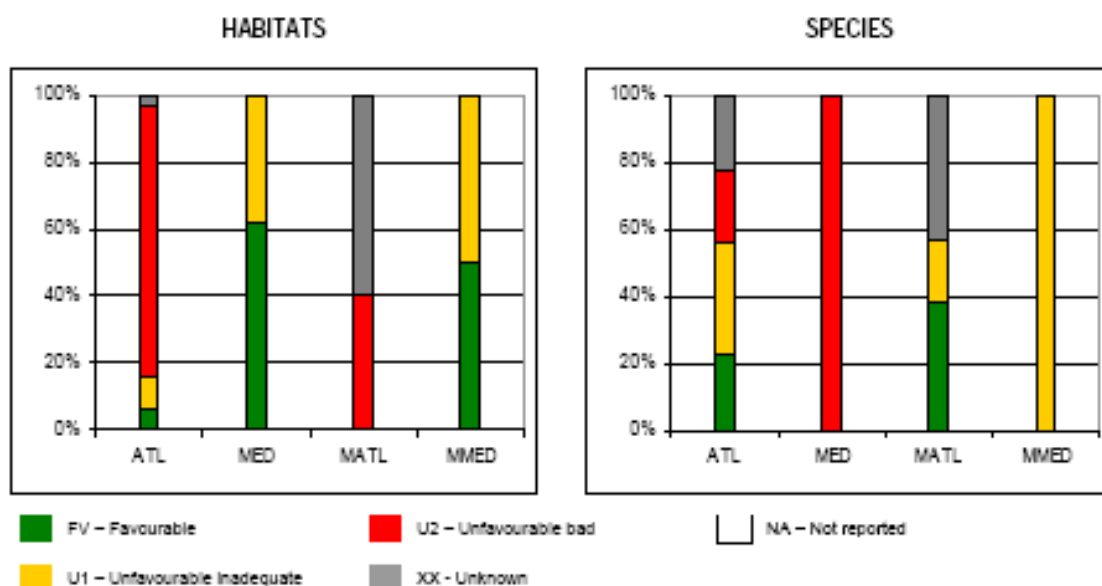
Progress on habitat management and conservation is reported separately by government sectors, based on their records of achievement. Industries and businesses depending on habitats in the countryside, maintain limited records of habitat change associated with their activities: carrying out structured habitat audit is not a usual practice. NICS 2007 has provided data that can be used for this purpose, by describing habitat change and assessing how farming, forestry and rural building have influenced change. Making strategic land use decisions for maintaining and managing these habitats is a challenging process. NICS 2007 gives a scientific, ecological context for making these decisions.

B. Status of the Habitats and Species

B.1 Most recent assessment of conservation status of species and habitat types for territory

B.1.a United Kingdom Habitat and species of Habitats Directive

Overall assessment of conservation status by biogeographical region (%)



Region / Conclusion	HABITATS					SPECIES				
	FV	U1	U2	XX	NA	FV	U1	U2	XX	NA
Atlantic	6	10	81	3		23	33	22	22	
Mediterranean	62	38						100		
Marine Atlantic			40	60		38	19		43	
Marine Mediterranean	50	50					100			
Member State	12	13	69	6		25	32	18	25	

Note: The highest values are highlighted.

Region / Conclusion	HABITATS					SPECIES				
	FV	U1	U2	XX	NA	FV	U1	U2	XX	NA
Range	93		1	6		78	7	7	8	
Area / Population	45	31	7	17		36	17	17	30	
Structure / Habitat	16	9	70	5		25	28	4	43	
Future Prospects	26	26	40	8		41	28	8	23	

FV – Favourable; U1 – Unfavourable inadequate; U2 – Unfavourable bad; XX - Unknown; NA – Not reported

These data are reproduced from the version of the template pre-populated by the Commission taken from data in the UK Article 17 Report 2007. The [report for the UK](#) covers both metropolitan UK (Atlantic biogeographical region) and Gibraltar (Mediterranean biogeographical region). The Atlantic part was completed by JNCC in consultation with species and habitats specialists in the country conservation agencies. The

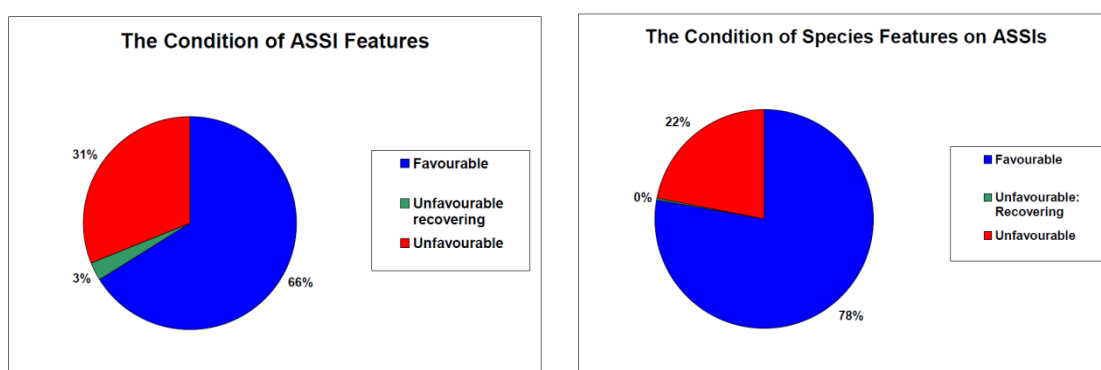
Mediterranean part was completed by the Gibraltar Ornithology and Natural History Society under contract to the Government of Gibraltar.

The UK report covers 167 [habitats](#) and [species](#) in the Atlantic biogeographical region, and 14 in the [Mediterranean](#) biogeographical region.

In terms of their overall population, a third of the species are considered Favourable. For some of these, for example the otter and some of the bat species, populations are increasing. For nearly a third of species we have too few data to assess the status of their populations. They include many of the cetaceans and also other species which are difficult to survey. Nearly one fifth of species are assessed as being Unfavourable - Bad. These are species whose populations are too small to be viable, or which have shown continuing recent population declines; for example the Scottish wildcat. Specific action will be needed to remedy these remaining problems.

A quarter of the habitats of the species are considered to be Favourable. However, for nearly half of species the condition of the habitat that they use is difficult to assess. This is often because the species use many habitats, for example many of the bat species, and reaching a decision on this is difficult. Given that the populations of many bat species are stable or increasing, it is likely that their habitat is also favourable, but we cannot confidently assess that this is case. For nearly a third of species, habitat is considered to be an important limitation on their conservation status at the moment, and habitat improvements will be needed if the conservation status of these species is to improve. For only a few species is the condition of the habitat Unfavourable-Bad; the marsh fritillary butterfly and the freshwater pearl mussel are two of these.

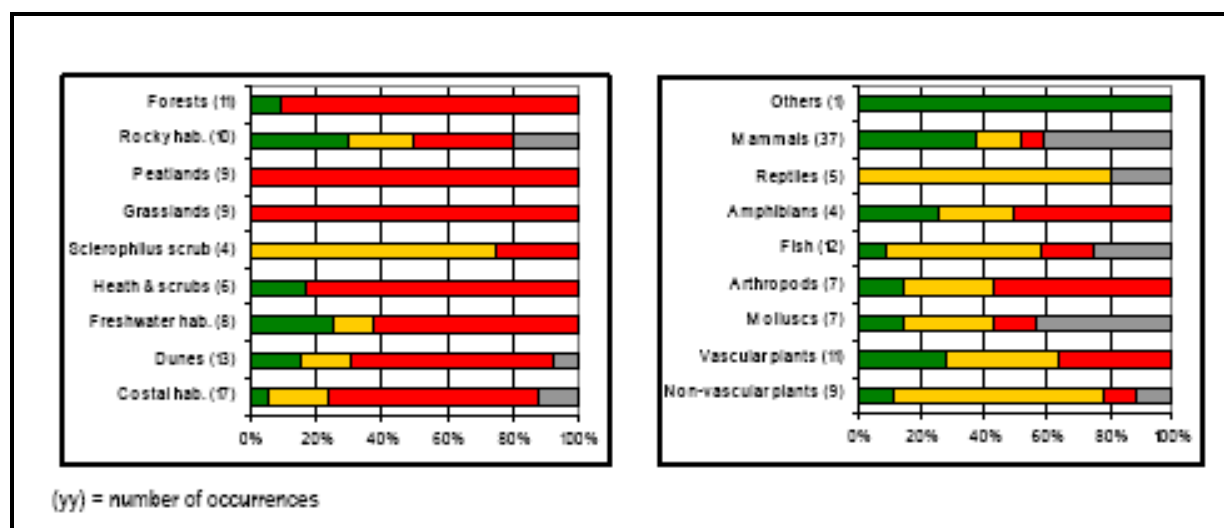
In Northern Ireland , the results show that around two thirds of the habitat features are in favourable condition. However, a significant proportion (slightly less than one third) of the features on ASSIs is in unfavourable condition (see below). The results for species show more variability, although still a relatively high proportion (i.e. 78%) of features are in favourable condition.



B.1.b Northern Ireland Bird species of Birds Directive

Species Name	Natura Site Selection Cited Feature	Natura Site Cited Assemblage Feature
Alca torda	X	
Anas acuta		X
Anas clypeata		X
Anas crecca		X
Anas penelope		X
Anas platyrhynchos		X
Anas strepera		X
Anser anser		X
Arenaria interpres	X	
Aythya ferina	X	
Aythya fuligula	X	
Aythya marila	X	
Branta bernicla hrota	X	
Bucephala clangula	X	X
Calidris alpina alpina		X
Calidris canuta	X	
Charadrius hiaticula	X	
Circus cyaneus	X	
Cygnus columbianus bewickii	X	
Cygnus cygnus	X	
Falco columbarius	X	
Falco peregrinus	X	
Fratercula arctica		X
Fulica atra		X
Fulmarus glacialis		X
Haematopus ostralegus		X
Larus argentatus		X
Larus canus		X
Larus fuscus		X
Limosa lapponica	X	
Mergus serrator		X
Numenius arquata		X
Phalacrocorax carbo	X	X
Pluvialis apricaria	X	
Pluvialis squatarola		X
Podiceps cristatus	X	X
Puffinus puffinus	X	
Rissa tridactyla	X	
Somateria mollissima		X
Sterna dougallii	X	
Sterna hirundo	X	
Sterna paradisaea	X	
Sterna sandvicensis	X	
Tadorna tadorna	X	
Tachybaptus ruficollis		X
Tringa totanus	X	X
Uria aalge	X	
Vanellus vanellus		X
<i>Potential sources of information: the summary of the 2004 Birds in Europe assessment for the country; national red lists results or other national assessments; the 2010 BAP country profile</i>		

B.2 United Kingdom overall assessment of conservation status by Habitat category / species group



B.3 United Kingdom overview of pressures and threats to species and habitats

Category of pressure / threat	HABITATS		SPECIES	
	Actual pressures	Future threats	Actual pressures	Future threats
Agriculture, Forestry	67		53	55
Fishing, hunting and collecting	14	6	38	38
Mining and extraction of materials	28	2	30	20
Urbanisation, industrialisation and similar activities	17	3	32	26
Transportation and communication	9	5	39	29
Leisure and tourism (other than above)	7	1	23	18
Pollution and other human impacts/activities	10	28	54	56
Human induced changes in wetlands and marine environments	9	5	51	51
Natural processes (biotic and abiotic)	8	5	57	57

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

C.1 Relevant legal provisions

The Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1985 provide for the legal protection and management of Natura 2000 sites in Northern Ireland. In addition, virtually all terrestrial Natura 2000 sites are also designated under national legislation [the Environment (Northern Ireland) Order 2002] as Areas of Special Scientific Interest (ASSI). ASSIs are areas of land that have been identified by scientific survey as being of the highest degree of conservation value. The ASSI powers and the separate provisions in national legislation transposing Article 6.3 and 6.4 of the Directive, are the primary legal mechanisms for the protection and management of the sites.

As part of the statutory notification procedures, all owners and occupiers of ASSIs are issued with a list of potentially damaging operations (PDOs). These are operations or activities which have the potential to damage the features of interest of the ASSI. Where ASSIs underpin Natura 2000 sites, the PDO list takes account of the qualifying interests of the Natura 2000 site. Land managers intending to undertake any activity on the PDO list must apply to the Northern Ireland Environment Agency (NIEA) for consent. Where the interests of a Natura 2000 site may be affected, NIEA will undertake an appraisal under the Conservation Regulations to ensure that there is no adverse effect on site integrity in view of the site's conservation objectives. If it cannot be ascertained that adverse effects on the integrity of the Natura 2000 site will be avoided, consent for the operation will be refused. Section 46 of the Environment Order provides for a number of offences including a failure by an owner/occupier to comply with the obligation to seek consent before carrying out a PDO; and an offence for anyone to intentionally or recklessly destroy or damage any of the flora or fauna or other features by reason of which the land is of special scientific interest.

National legislation also gives NIEA the powers to enter into management agreements with land owners to further conservation, restoration or protection of a site as appropriate. In circumstances where agreement cannot be reached with land owners or where an ASSI is being inadequately conserved or restored, NIEA have additional powers to serve land owners with a management notice requiring them to carry out such measures considered necessary for the proper management of the site.

Under the provisions of the Conservation Regulations all competent authorities are under a legal obligation to carry out an assessment of the possible impacts of any plan or project on a site in accordance with Article 6.3 in order to ensure that no plan or project that might have a negative impact upon the site shall take place. Additionally, section 38 of the Environment Order places a duty on all public bodies to further the conservation and enhancement of the flora, fauna or physiological features by reason of which the ASSI is of special scientific interest. The Northern Ireland Planning Authorities must also consider the possible impact of a development on an ASSI when assessing planning applications.

NIEA operate a rigorous ASSI monitoring programme divided into two broad categories: (i) site integrity/compliance monitoring is essentially an annual check that the site is still 'intact' and has not been significantly modified since its declaration. It includes checks to ensure that there are no infringements, either of notifiable operations or management agreements where these are in place; and

(ii) condition assessment is designed to detect more subtle change and is carried out on a six year rolling programme of site condition to determine the conservation status of the site and whether this has attained favourable condition.

As with other parts of the UK, agri-environment schemes also contribute to the delivery of site improvement. At present some 40% of Northern Ireland is covered by agri-environment agreements and landowners commit to the site management programmes for a minimum of 7 years. The Department of Agriculture and Rural Development (DARD) has given special recognition to ASSIs declared for flora and fauna when considering the entry of farm holdings with a Farm Business Identification Number into its Northern Ireland Countryside Management Scheme (NICMS). The land management prescriptions laid down by DARD under this scheme are also intended to ensure land that is subject to an ASSI declaration is managed in a manner that is sympathetic to the special scientific interest.

NIEA operate a financial incentive scheme – the Management of Sensitive Sites (MOSS) Scheme - aimed at anyone who owns or manages land within an ASSI who is not receiving funding for the same area from other government sources. Its key objectives are to conserve and enhance the nature conservation interests of the land.

Broad based actions to enhance biodiversity including NI specific Habitat and Species Action Plans (NI HAPs/SAPs, in addition to participation in the UK wide HAPs/SAPs), also contribute directly to the conservation of Natura 2000 sites.

Woodland and forestry management are important to a number of ASSIs and a Woodland Grant scheme operated by the Department of Agriculture and Rural Development aims to expand the amount of tree cover in Northern Ireland by encouraging the creation of new woodland in order to improve woodland biodiversity and encourage the sustainable management of forests and woodlands.

Other administrative and legislation

Guidance for Local Authorities on Implementing the Biodiversity Duty, Defra
<http://archive.defra.gov.uk/environment/biodiversity/documents/la-guid-english.pdf>

Guidance for Public Authorities on Implementing the Biodiversity Duty, Defra
<http://archive.defra.gov.uk/environment/biodiversity/documents/pa-guid-english.pdf>

Statutory Instruments 2010 No. 490 Wildlife Countryside The Conservation of Habitats and Species Regulations 2010
<http://www.legislation.gov.uk/ukSI/2010/490/contents/made>

2012/1927 Wildlife Countryside and Marine Management : The Conservation of Habitats and Species (Amendment) Regulations 2012
<http://www.legislation.gov.uk/ukSI/2012/1927/contents/made>

2012 No. 1928 Wildlife: The Offshore Marine Conservation (Natural Habitats, &c.) (Amendment) Regulations 2012 <http://www.legislation.gov.uk/ukSI/2012/1928/contents/made>

Statutory Instruments 2011 No 625. The Conservation of Habitats and Species (Amendment) Regulations 2011 <http://www.legislation.gov.uk/ukSI/2011/625/contents/made>

Countryside and Rights of Way Act 2000
<http://www.legislation.gov.uk/ukpga/2000/37/contents>

Natural Environment and Rural Communities Act 2006

<http://www.legislation.gov.uk/ukpga/2006/16/contents>

Marine Strategy Framework Directive and its transposition:

http://ec.europa.eu/environment/water/marine/directive_en.htm

<http://www.legislation.gov.uk/uksi/2010/1627/contents/made>

Water Framework Directive and its transposition:

http://ec.europa.eu/environment/water/water-framework/index_en.html

<http://www.legislation.gov.uk/uksi/2003/3242/contents/made>

Management and surveillance of sites which straddle the border between Northern Ireland and the Republic of Ireland.

Initial discussions have already taken place between officials from the two jurisdictions and have agreed to undertake joint working on these sites using most appropriate best practice techniques to ensure that when each MS describes a site or feature in favourable or unfavourable status exactly the same condition is being referred to.

All Annex I habitats and Annex II species in the cross-border sites in the island of Ireland will be targeted. INTERREG V and possibly PEACE IV with national public money are potential financing sources.

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

Progress in establishing conservation objectives	<p>There is no obligation to implement a Natura 2000 site management plan in Northern Ireland, although there is a legal obligation to produce a Site Management Statement (SMS) for every ASSI. Where an ASSI underpins a Natura 2000 site, the SMS takes account of the Natura interest(s). However, land managers are not obliged to implement the SMS.</p> <p>As part of the statutory notification package, all owners and occupiers of ASSIs are issued with a list of Notifiable Operations requiring consent (the NO list). These are operations or activities which have the potential to damage the features of interest of the ASSI. Where ASSIs underpin Natura 2000 sites, the NO list takes account of the qualifying interests of the Natura 2000 site. Land managers intending to undertake any activity on the NO list must apply to NIEA for consent. Where the interests of a Natura 2000 site may be affected, NIEA will undertake an appraisal under the Habitats Regulations to ensure that there is no adverse effect on site integrity in view of the site's conservation objectives. If it cannot be ascertained that adverse effects on the integrity of the Natura 2000 site will be avoided, consent for the operation will be refused. The conservation objectives for Natura 2000 sites are based on the requirements of Article 6.2 of the Habitats Directive (to avoid deterioration and significant disturbance) and the requirements of favourable conservation status for habitats and species (as defined in Article 1). Conservation objectives are</p>
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	<p>available for all Natura sites in Northern Ireland.</p> <p>Management of Natura 2000 sites is often supported (financially and otherwise) by the Northern Ireland Rural Development Programme.</p> <p>Various plans are implemented in protecting and managing N2000 sites. These are contractual plans , NICMS, MoSS and restrictions through the consenting process for ASSIs. All sites designated have conservation objectives, monitoring information and condition assessments. These form the basis for advice and planning of site activities. All but two N2000 sites are underpinned by ASSIs which give additional protection. NIEA has produced a guide to ASSI designation and management booklet and DVD.</p> <p>http://www.doeni.gov.uk/niea/areas_of_special_scientific_interest_worthy_of_protection-2.pdf</p> <p>NIEA advise on the management plans proposed by local authorities in delivering their statutory functions, including the approval of plans/projects under Article 6.3</p> <p>NIEA have bespoke teams implementing management and protection strategies within N2000 sites. Dedicated staff teams administer both the consenting, assenting and HRAs processes and the Agri environment schemes delivering appropriate management.</p> <p>NIEA has a budget of £400k to administer MoSS and agri environment schemes in the delivery of N2000 management.</p> <p>In addition to the above there are management schemes, as indicated under Regulation 28 for the following European marine Sites (EMS): Strangford Lough SAC/SPA Rathlin Island SAC/SPA</p>
% of sites with plans completed	3% Strangford Lough SAC/SPA
% of sites with plans in preparation	3% Rathlin Island SAC/SPA
% of sites with no plans	94%
Link to web sites with plans & any guidelines	http://www.doeni.gov.uk/niea/strangfordmanagementscheme.pdf

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.)	Information relating to the protection and management of designated sites is found on the NIEA web site: http://www.doeni.gov.uk/niea/protected_areas_home
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C.3 Relevant government and non-governmental plans

There are a considerable number of Government plans and plans by environmental Non Government Organisations in Northern Ireland. Many of these are financially resourced through the NI devolved government's grant aid programme. There are also River Basin Management Plans (WFD). Local District Councils also have Biodiversity Officers who have devised local government biodiversity plans.

D CURRENT EXPERIENCE WITH USE OF EU FINANCIAL INSTRUMENTS

D1 European Agricultural Fund for Rural Development (EAFRD)

Provide a summary of allocations under relevant provisions of rural development fund for Natura 2000 management, (as well as other relevant national/regional financing)

Fund	Provision	Level of Use*
EAFRD	213 Natura 2000 payments	
	224 Forest Natura 2000 payments	
	214 Agri-environment	See below
	225 Forest-environment measures	
Other relevant (national/regional) payment schemes for Territory		
Summary of key Natura 2000 related measures being undertaken under fund:		
See DARD specifics below.		
Key lessons learnt and obstacles encountered:		
Agri-environment schemes hitherto have provided limited benefits to Natura 2000.		

* 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 Fisheries Fund (EFF)

Provide a summary of allocations under Axis 1-4 of EFF used for Natura 2000 management, (as well as other relevant national/regional funding)

Fund	Provision	Level of Use*
EFF	Axis 1	
	Axis 2	
	Axis 3	
	Axis 4	
Other (national/regional) payment schemes for Territory		
Summary of key Natura 2000 related measures being undertaken under fund:		
None known.		
Key lessons learnt and obstacles encountered:		
CFP schemes hitherto have provided limited benefits to Natura 2000.		

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 and the Cohesion Fund

Provide a summary of allocations under relevant provisions of structural funds used for Natura 2000 management, (as well as other relevant national/regional funding)

Fund	Provision	Level of Use*
ERDF	Category 51	
	Category 55	
	Category 56	
Building Sustainable Prosperity		
BSP 7473	Enhanced natural attenuation of hydrocarbon contaminated land	
BSP 7501	Conservation Genetics of Northern Ireland Seagrass Beds	
BSP 7505	Conservation Genetics of Northern Ireland Peat Bogs	
BSP 7734	Refinement of a novel method for measuring reaeration in surface waters	
BSP 7741	Mourne Interpretation & Information Strategy	
BSP 7784	Molecular Basis for a Species Action Plan for Red Alga <i>Ahnfeltiopsis</i>	
BSP 7838	Rare Earth	
BSP 7839	The Natural Stone Weathering Database	
BSP 25645	Local Air Quality Management Grant Scheme	
BSP 30793	Waste Management Grant Scheme to District Councils	

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 Natura 2000 management,

Fund	Provision	Level of Use*
LIFE+	Nature and Biodiversity	
Summary of key Natura 2000 related measures being undertaken under fund.		
See Defra UK overview.		
Key lessons learnt and obstacles encountered:		
See Defra UK overview		
Northern Ireland competent authorities have reviewed LIFE as an option and propose submitting a major bid in the next funding round supported by this PAF		

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*
7th Framework Programme for Research (FP7)		None
Public/Private Partnership financing schemes		None
Use of innovative financing		None
Other (specify)		INTERREG
INTERREG IVA 3126	Controlling priority invasive non-native riparian plants and restoring native biodiversity	
INTERREG IVA 3705	Practical Implementation of Freshwater Pearl Mussel Measures	
INTERREG IVA 2866	Halting Environmental Loss Project (HELP)	
INTERREG IVA 2991	Using SRC willow for the biofiltration / bioremediation of organic effluents and sludges	
INTERREG IVA 3603	Geo-environmental Survey of the North of Ireland 'GESI North'	
INTERREG IVA 3677	Ireland, Northern Ireland, Scotland Hydrographic Survey Project (INIS Hydro)	
INTERREG IVA 2862	Development of targeted ecological modelling tools for lake management	
INTERREG IIIA 19373	North - South SHARE	
INTERREG IIIA 20189	Lough Melvin Catchment Management Plan	
INTERREG IIIA 20204	Blackwater TRACE	
INTERREG IIIA 20274	Forest Impacts on Upland Lakes	
INTERREG IIIA 20380	Strategic Planning for Cross Border Waste Management	
INTERREG IIIA 24781	Water Quality Monitoring Buoys	
INTERREG IIIA 24783	Fish Counter - River Strule	
INTERREG IIIA 24785	Inshore Patrol Vessel - Carlingford	
INTERREG IIIA 24786	Tagging and Detection Unit	
INTERREG IIIA 24789	Combined Fishery Enhancement and Management Programme	
INTERREG IIIA 24791	Fish Surveying Echo-Sounders	
INTERREG IIIA 24796	Pilot Project to track Shellfishery Vessels	
INTERREG IIIA 26155	Waste Awareness Media Campaign	
INTERREG IIIA 39161	Joint Irish Bathymetric Survey (JIBS)	

E Current estimate of financial needs for management of Natura 2000 for the United Kingdom

The following resources needs are copied from the pre-populated template provided by the Commission. We have yet to provide a Northern Ireland specific analysis of our regional needs.

The aim is to summarise the results of the 2008 questionnaire

Management Actions	Guidance note number	Key Activities	Total cost (£. Pounds Sterling)
ONE OFF COSTS			
Finalisation of Sites	1	Scientific studies, administration, consultation etc	23.528.648
Management Planning	2	Preparing management plans, establishing management bodies, consultation etc	15.165.382
	1+2	Subtotal: One-off costs management	38.694.030
Investment costs	3	Land purchase	3.515.000
	4	One-off (i.e. not regular annual) payment of compensation for development rights.	2.897.000
	5	Infrastructure needed for the improvement / restoration of habitat or species	15.794.383
	6	Infrastructure for public access, interpretation works, observatories and kiosks, etc (contributing to conservation)	6.037.517
	3-6	Subtotal: Investment	28.243.900
	1-6	Subtotal: One-off costs	66.937.930
RECURRENT COSTS			
		Key Activities	Total annual cost
Management planning	7	Running costs of management bodies	16.055.476
	8	Review of management plans	270.787
	9	Public communication	26.050
	7 to 9	Subtotal: management planning	16.352.313

Habitat management and monitoring

	Agri	Forests	Other terr	Inland waters	Wetlands	Coastal	Marine	TOTAL
Conservation management measures—maintenance and improvement of habitats' favourable conservation status	5.819.622	602.126	1.244.438	519.126	2.141.857	2.470.402		12.797.571
Conservation management measures—maintenance and improvement of species' favourable conservation status	1.886.668	300.000	1.981.000	655.000	1.989.098	1.721.514		8.533.280
Implementation of management schemes and agreements with owners and managers of land or water for following certain prescriptions	42.270.000	7.604.000	580.000	80.000	16.612.000	2.984.000		70.130.000
Provision of services; compensation for rights foregone and loss of income; developing acceptability 'liaison' with neighbours	77.827	10.726	77.764	10.726	65.698	101.412		344.153
Monitoring	249.115	93.064	200.953	41.249	283.699	318.763		1.186.843

Maintenance of facilities for public access to and use of the sites, interpretation works, observatories and kiosks etc.	2.700	103.600	73.885	11.600	238.266	21.400		451.451
Risk management (fire prevention and control, flooding etc)	650.000	102.500	2.000	0	400.000	100.000		1.254.500
Surveillance of the sites	33.177	4.374	81.895	105.574	152.560	32.730	500.000	910.310
Subtotal: Habitat management and Monitoring	50.989.109	8.820.390	4.241.935	1.423.275	21.883.178	7.750.221	500000	95.608.108

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)

Special Areas of Conservation

The table below identifies the priority habitat SAC features to be prioritised over the next period.

Priority SAC habitats assessment and risk

NI FCS: FV = Favourable; U1 = Unfavourable Inadequate; U2 = Unfavourable Bad; XX = Unknown

Risk = Risk of being affected by human pressure (expert opinion): high, medium or low.

NIHAP = Northern Ireland Habitat Action Plans

Note: Northern Ireland is 5.7% of the total geographical area of the UK, the coast is 3% of UK coastline and the territorial sea is 0.3% of UK (to 12 nm)

1.	Code	Habitat	NI FCS	% UK in NI	NIHAP	SACs	Comment	Risk
2.	H2130	Fixed dunes with herbaceous vegetation "grey dunes" *	U2	3.6%	<u>Coastal sand dune</u>	4	Sufficient (42%) covered in UK by CSM and HAP. Proportionate in NI. All major dune systems in NI at risk.	High
3.	H2150	Atlantic decalcified fixed dunes <i>Calluno-Ulicetea</i> *	U2	13%	<u>Coastal sand dune</u>	1	Most covered in UK by CSM and HAP. Significant (13%) proportion in NI. Need specific monitoring of this priority feature	High
4.	H6230	Species-rich <i>Nardus</i> grassland,	U2	< 1%	<u>Calcareous grassland</u>	2	Most (72%) covered in UK by CSM. No HAP. Not significant in NI.	High
5.	H7110	Active raised bogs*	U2	35%	<u>Lowland raised bog</u>	16	Sufficient (59%) covered in UK by CSM and HAP. Significant (35%) in NI. NICS Bog/Wet bog	High
6.	H7130	Blanket bogs*	U2	6.4%	<u>Blanket bog</u>	7	Not much covered by CSM in UK and HAP. Sufficient in NI. NICS Bog/Wet bog	High
7.	H7210	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> *	U2	< 1%	<u>Fen</u>	1	Almost all covered by CSM in UK and HAP. Not significant in NI.	High
8.	H8240	Limestone pavements*	FV	7.8	<u>Limestone pavement</u>	1	Sufficient covered by CSM in UK. No HAP. Sufficient in NI.	Low
9.	H9180	<i>Tilio-Acerion</i> forests of slopes,	U2	< 1%	<u>Ash woodland</u>	2	Sufficient (46%) covered in UK by CSM and HAP.	Med

		scree and ravines*					Little (< 1%) in NI.	
10.	H91D0	Bog woodland*	U2	1.7%	<u>Wet woodland</u>	3	Sufficient covered by CSM in UK. No HAP.	Low
11.	H91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> <i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i> *	U2	3.9	<u>Wet woodland</u>	3	Sufficient covered by CSM in UK. Sufficient in NI.	Med

There are no priority species in Northern Ireland.

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)

The table below identifies the non-priority habitat SAC features to be prioritised over the next period.

Other SAC habitats assessment and risk

NI FCS: FV = Favourable; U1 = Unfavourable Inadequate; U2 = Unfavourable Bad; XX = Unknown

Risk = Risk of being affected by human pressure (expert opinion): high, medium or low.

NIHAP = Northern Ireland Habitat Action Plans

Note: Northern Ireland is 5.7% of the total geographical area of the UK, the coast is 3% of UK coastline and the territorial sea is 0.3% of UK (to 12 nm)

	Code	Habitat	NI FCS	% UK in NI	NI HAP	SACs	Comment	Risk
1.	H1130	Estuaries Foyle and Bann	U2	1.3%	No	0	Sufficient covered in UK by CSM. Little currently in NI sites. Non-SAC estuaries poor condition.	Low
2.	H1160	Large shallow inlets and bays	U2	8%	Yes	1	Sufficient cover in UK by CSM. NI Action Plan exists but not activated Significant proportion in NI.	Low
3.	H1170	Reefs	U2	?	No	2	Very little (2%) in UK SACs. No SACs in NI. No specific HAP. More survey needed.	Med
4.	H1230	Vegetated sea cliffs of the Atlantic and Baltic coasts	U2	1.4%	Yes	2	Sufficient covered in UK by CSM and HAP. Sufficient in NI.	Low
5.	H2110	Embryonic shifting dunes	U2	1.7%	Yes	3	Sufficient covered in UK by CSM and HAP. All major dune systems in NI covered by ASSI designation but at risk.	Med
6.	H2120	Shifting dunes along the shoreline	U2	< 1%	Yes	4	Sufficient covered in UK by CSM and HAP. Not significant in NI. All major dune systems in NI covered by ASSI designation but at risk.	Med
7.	H2170	Dunes with <i>Salix repens</i> ssp. <i>argentea</i> <i>Salicion arenariae</i>	U2	1.9%	Yes	2	Most (70%) covered in UK by CSM and HAP. Sufficient (2%) in NI.	High
8.	H2190	Humid dune slacks	U2	1.2%	Yes	1	Sufficient covered in UK by CSM and HAP. Small amount (1.2%) in NI.	High
9.	H3130	Oligotrophic to mesotrophic standing waters	U1	1.6%	Yes	3	Sufficient (1.6%) in NI. Not much covered in UK by CSM and HAP.	High
10.	H3140	Hard oligo-mesotrophic waters	U2	2%	Yes	1	Not much covered in UK by CSM and HAP. Sufficient (2%) in NI.	High
11.	H3150	Natural eutrophic lakes	U2	2.6%	Yes	2	Not known how much covered in UK by CSM and HAP. Probably sufficient in NI.	High
12.	H3180	Turloughs	U2	8%6	Yes	1	All covered by in UK CSM and HAP. Highly significant in NI.	High
13.	H3260	Water courses of plain to	U2	?	Yes	6	Not known how much covered in UK by CSM and HAP.	High

		montane levels					Apparently proportionate in NI according to distribution map.	
14.	H4010	Northern Atlantic wet heaths with <i>Erica tetralix</i>	U2	12%	Yes	5	Not much covered in UK by CSM and HAP. Significant proportion (12%) in NI. Need to check NICS2007 results.	High
15.	H4030	European dry heaths	U2	1.7%	Yes	5,	Some covered in UK by CSM and HAP. Sufficient in NI (80% in designated sites). NI FCS unknown.	High
16.	H6210	Semi-natural dry grasslands and scrubland	U2	2.1%	Yes	2	Sufficient (59%) covered in UK by CSM and HAP. Sufficient (2.1%) in NI.	High
17.	H6410	<i>Molinia</i> meadows	U2	22%	Yes	2	Sufficient (44%) covered in UK by CSM and HAP. Significant (22%) in NI. Less than 10% in NI in designated sites.	High
18.	H6430	Hydrophilous tall herb fringe communities	U2	4.3%	No		Almost all covered by CSM in UK (96%?). No HAP. Proportionate (4.3%) in NI. No SACs or ASSIs for this in NI.	High
19.	H7120	Degraded raised bogs still capable of natural regeneration	U2	18%	Yes	2	Not much covered in UK by CSM and HAP. Significant in NI.	Med
20.	H7140	Transition mires and quaking bogs	U2	?	Yes	4	Not known how much in UK covered by CSM and HAP.	High
21.	H7150	Depressions on peat substrates of the <i>Rhynchosporion</i>	U2	19%	Yes	0	Not known how much in UK covered by CSM and HAP. Little (< 1% of total UK) in NI. Not currently differentiated from blanket bog.	High
22.	H7230	Alkaline fens	U2	2.5%	Yes	4	Not known how much in UK covered by CSM and HAP. .	High
23.	H8310	Caves not open to the public	XX	22%	No	0	Not known in UK or NI. No HAP. No SACs in NI. Significant in NI.	Low
24.	H91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	U2	< 1%	Yes	13	Not much in UK (46%) covered by CSM and HAP. Little (< 1%) in NI.	Med

Non priority SAC species

The table below identifies the non-priority species SAC features to be prioritised over the next period.

Non-priority SAC species assessment and risk

The reporting format set by the European Commission requires assessment of the conservation status of each species on Annexes II, IV and V of the Directive

	Code	Species	NI FCS	NI pop	NI SAP	SA Cs	Surveillance	Risk
1.	S1092	<i>Austropotamobius pallipes</i> White-clawed crayfish	U1	5 pops	No	1	No systematic or permanent scheme. NI currently only plague free populations in UK/RoI.	High
2.	S5113	<i>Cladonia</i> subgenus <i>Cladina</i> Subgenus lichens	XX	XX	No	0	British Lichen Society Recording Scheme. Does it provide adequate coverage?	Low
3.	SXXX	<i>Coregonus spp.</i> (<i>C. autumnalis</i>) Pollan	XX	XX	No	0	None. Only occurs in Ireland, not GB.	High
4.	S1065	<i>Euphydryas</i> <i>Eurodryas</i> , <i>Hypodryas</i> <i>aurinia</i> Marsh fritillary butterfly	XX	5% UK	Yes	5	UK Butterfly Conservation Monitoring Scheme:	Med
5.	S1099	<i>Lampetra fluviatilis</i> River lamprey	XX	3.5% UK	No	0	WFD monitoring by Fisheries Agencies	XX
6.	S1096	<i>Lampetra planeri</i> Brook lamprey	XX	3.8% of UK	No	0	WFD monitoring by Fisheries Agencies	XX
7.	S1029	<i>Margaritifera margaritifera</i> Freshwater pearl mussel.	U2	5 sites	Yes	3	UK = 132 sites, 66 viable. NI = 5 sites (3.8%), 2 viable (3%).. No systematic and permanent scheme	High
8.	S1314	<i>Myotis daubentonii</i> Daubenton's bat	FV	410K = 73%	Yes	0	National Bat Monitoring Scheme:	Low
9.	S1273	<i>Myotis mystacinus</i> Whiskered bat	XX	24K = 38%	Yes	0	National Bat Monitoring Scheme:	Low

10.	S1322	<i>Myotis nattereri</i> Natterer's bat	XX	48K = 32%	Yes	0	National Bat Monitoring Scheme	Low
11.	S1331	<i>Nyctalus leisleri</i> Leisler's bat	XX	18K = 64%	Yes	0	National Bat Monitoring Scheme:	Low
12.	S1395	<i>Petalophyllum ralfsii</i> Petalwort	U2	7% UK	No	1	Known from only one site.	Low
13.	S1095	<i>Petromyzon marinus</i> Sea lamprey	XX	8.5% UK	No	0	WFD monitoring by Fisheries Agencies – need MoU.	XX
14.	S1317	<i>Pipistrellus nathusii</i> Nathusius' Pipistrelle	XX	12K = 47%	Yes	0	National Bat Monitoring Scheme: range, population and habitat data	Low
15.	S1309	<i>Pipistrellus pipistrellus</i> Common Pipistrelle	XX	1.15m = 75%	Yes	0	National Bat Monitoring Scheme: range, population and habitat data	Low
16.	S5009	<i>Pipistrellus pygmaeus</i> Soprano pipistrelle	XX	580K = 45%	Yes	0	National Bat Monitoring Scheme: range, population and habitat data	Low
17.	S1326	<i>Plecotus auritus</i> Brown long-eared bat	XX	45K = 18%	Yes	0	National Bat Monitoring Scheme: range, population and habitat data	Low
18.	S1106	<i>Salmo salar</i> Atlantic salmon	U2	5522 =5.7% UK	No	5	Significant monitoring in place by Loughs Agency and Inland Fisheries (DCAL)	High
19.	S1528	<i>Saxifraga hirculus</i> Marsh saxifrage	XX	1 pop	No	1	Comprehensive SAC monitoring of only site	Med

Special Protection Areas

Across the SPA suite in Northern Ireland many of qualifying features (83%) are in favourable condition (based on the returns of the last Common Standards Monitoring report of 2008). However, there is a significant number in unfavourable condition (17%), some of which are believed to be amenable to on-site remedies.

For the first 3 years of the 2014-2020 period, we have initially prioritised 10 SPA features for positive management action – this will address a significant proportion of the unfavourable SPA features that are amenable to on-site remedies.

The table below identifies the SPA features to be prioritised over the next period:

SPA feature

Aythya ferina pochard

Aythya fuligula tufted duck

Aythya marila scaup

Bucephala clangula goldeneye

Circus cyaneus hen harrier

Numenius arquata curlew

Pluvialis apricaria golden plover

Tringa totanus redshank

Vanellus vanellus lapwing

Waterfowl assemblages, non-breeding

Wider measures

The Northern Ireland SPA series includes a total of 46 selection features (this does not include species that contribute to assemblage features, except where these qualify in their own right).

Management measures, focussed on Natura sites, will contribute to progress against Target 1 of the EU 2020 Biodiversity Strategy. However, we recognise that a much bigger impact can be achieved if measures can also be taken for Natura habitats and species in the wider countryside. Accordingly in Northern Ireland we will develop a suite of wider schemes, some linked to the outcomes of the Atlantic Seminar in the New Biogeographical Process. These schemes will include:

Research into Nitrogen deposition, its effects on European habitats and potential remedial measures.

NIEA have commissioned research into factors at a number of SPAs to better understand the reasons behind unfavourable status of the Lough Neagh SPA. We are also collaborating with other partners to assess factors at other sites e.g. Carlingford Lough.

Of the species in unfavourable condition two features are currently viewed as being amenable to on-site remedies these being -

Golden Plover (breeding) - factor appears to be habitat management needs

Cormorant (breeding) - factor appears to be management of invasive species (Brown Rat)

Wider countryside measures may also benefit a number of SPA features including -

Water Framework Directive and River Basin Management Plan initiatives to address eutrophication - likely gains for freshwater SPA features

Agri-environment programmes - targeted upland initiatives likely gains for breeding raptors and waders especially

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

Article 11 Surveillance

From a detailed scoping of current surveillance schemes in Northern Ireland there are a number of habitats for which there is a significant risk that current schemes, programmes and projects will not provide sufficient information to assess their conservation status because they are permanent and/or systematic. Thus additional surveillance schemes are required to be put in place for the following nine habitats.

Habitats for which there are no systematic and permanent schemes of surveillance being undertaken.

	Habitat	UK FCS	NI FCS	% UK in NI	HAP	NI SACs	Comment
1.	Estuaries	U2	U2	1.3	No	0	Inadequate coverage in NI
2.	Mudflats and sandflats not covered by seawater at low tide	U2	U2	3.8	Yes	1	Inadequate coverage in NI. Action Plan but not activated.
3.	Large shallow inlets and bays	U2	U2	8	Yes	1	Inadequate coverage in NI. Action Plan not activated. Significant proportion in NI.
4.	Reefs	XX	XX	?	No	2	Very little (2%) in UK SACs. No HAP. More survey needed.
5.	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> -type vegetation	U2	U2	2.6 as □	Yes	2	Not known how much covered in UK by CSM. 10ha and below not monitored by WMU. Need further survey.
6.	Northern Atlantic wet heaths with <i>Erica tetralix</i>	U2	U2	12	Yes	5	Significant proportion (12%) in NI but only a small proportion in SACs.
7.	<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils <i>Molinion caeruleae</i>	U2	U2	22	Yes	2	Significant (22%) in NI. Less than 10% in NI in designated sites.

8.	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	U2	U2	4.3	No	0	No HAP. Proportionate (4.3%) in NI. No SAC/ASSIs for this in NI.
9.	Caves not open to the public	XX	XX	22% as <input type="checkbox"/>	No	0	Unknown extent in UK or NI. No HAP. No SACs in NI. Significant in NI.

From a detailed scoping of current surveillance there are a number of species for which there is a significant risk that current schemes, programmes and projects will not provide sufficient information to assess their conservation status. Including all six bat species, the following 24 species/entities require new systematic and permanent surveillance schemes.

Species for which there are no systematic and permanent schemes of surveillance being undertaken.

	Species	UK FCS	NI FCS	UK SAP	NI SACs	Comment
1.	<i>Austropotamobius pallipes</i> White-clawed crayfish	U2	U2	Yes	1 SAC (Annex II and V)	No systematic or permanent scheme. 7.6% of known UK populations.
2.	<i>Cladonia</i> subgenus <i>Cladina</i> Subgenus lichens	XX	XX	No	None (Annex V)	No systematic or permanent scheme. Population unknown.
3.	<i>Coregonus spp.</i> (<i>C. autumnalis</i>) Pollan	XX	XX	Yes	None (Annex V)	No systematic or permanent scheme. Population unknown.
4.	<i>Dermochelys coriacea</i> Leatherback Turtle	XX	XX	Yes as all turtles	None (Annex IV)	No systematic or permanent scheme. NIEA (2006) review of marine turtle records in NI.
5.	<i>Lampetra fluviatilis</i> River lamprey	U1	U1	No	None (Annex II)	WFD monitoring by Fisheries Agencies – need MoU.
6.	<i>Lampetra planeri</i> Brook lamprey	U1	U1	No	None (Annex II)	WFD monitoring by Fisheries Agencies – need MoU.
7.	<i>Leucobryum glaucum</i> Large white-moss	U1	U1	No	None (Annex V)	British Bryological Recording Schemes. Poorly known in NI but probably

						proportionate.
8.	<i>Lithothamnium coralloides</i> Maerl	U1	U1	Yes	None (Annex V)	Location, extent and condition of NI maerl beds poorly known. 16 = 10% of known UK sites.
9.	<i>Lutra lutra</i> Otter	FV	FV	Yes	5 SACs (Annex II)	No formal permanent surveillance. Probably better than proportionate population.
10	<i>Lycopodium</i> spp. Clubmosses	U1	U1	Part	None (Annex V)	One species which occurs on one site.
11	<i>Margaritifera margaritifera</i> Freshwater pearl mussel.	U2	U2	Yes	3 river SACs (Annex II and V)	NI = 5 sites = 3.8% of UK. 3 ASSIs to be designated. No systematic and permanent scheme.
12	<i>Martes martes</i> Pine marten	FV □	FV □	No	None (Annex V)	Survey in 2004 but no systematic and permanent surveillance
13	<i>Myotis daubentonii</i> Daubenton's bat	FV	FV	AI all bats	None (Annex IV)	No systematic or permanent scheme. Significant population.
14	<i>Myotis mystacinus</i> Whiskered bat	XX	XX	AI all bats	None (Annex IV)	No systematic or permanent scheme. Significant population.
15	<i>Myotis nattereri</i> Natterer's bat	FV	FV	AI all bats	None (Annex IV)	No systematic or permanent scheme. Significant population.
16	<i>Nyctalus leisleri</i> Leisler's bat	XX	XX	AI all bats	None (Annex IV)	No systematic or permanent scheme. Significant population.
17	<i>Petromyzon marinus</i> Sea lamprey	U1 □	U1 □	No	None (Annex II)	WFD monitoring by Fisheries Agencies – need MoU.
18	<i>Phymatholithon calcareum</i> Maerl	U1	U1	Yes	None (Annex V)	Location, extent and condition of NI maerl beds poorly known. 16 = 10% of known UK sites.
19	<i>Pipistrellus nathusii</i>	XX	XX	AI	None	No systematic or

	Nathusius' Pipistrelle			all bats	(Annex IV)	permanent scheme. Significant population.
20	<i>Pipistrellus pipistrellus</i> Common Pipistrelle	FV	FV	AI all bats	None (Annex IV)	No systematic or permanent scheme. Significant population.
21	<i>Pipistrellus pygmaeus</i> Soprano pipistrelle	XX	XX	AI all bats	None (Annex IV)	No systematic or permanent scheme. Significant population.
22	<i>Plecotus auritus</i> Brown long-eared bat	FV	FV	AI all bats	None (Annex IV)	No systematic or permanent scheme. Significant population.
23	<i>Rana temporaria</i> Common frog	FV	FV	No	None (Annex V)	No systematic or permanent scheme.
24	<i>Vertigo geyeri</i> Geyer's whorl snail	FV	FV	Yes	None (Annex II)	Recent NI surveys ((2006) but no systematic and permanent scheme.

Adopting the ecosystem approach at landscape level

We propose to apply and embed the ecosystem approach by developing a more holistic to protect and manage the environment. This investment in valuing the ecosystem services will demonstrate that our society benefits through health and well-being outcomes. This investment will also raise awareness of their value to the Northern Ireland economy and its future prosperity. Natural capital in the wider countryside will be enhanced by establishing landscape scale ecological networks to conserve biodiversity through improved connectivity between designated sites and Natura 2000 habitat types and species and to sustain healthy ecosystems which will be more resilient to the effects of climate change and provide the ecosystems services which contribute to the well-being of our society and the economy.

We propose to develop strong partnerships to protect and promote recognition of landscapes as assets which provide the basis for tourism; to deliver on the management of special landscapes; to provide sustainable and managed outdoor recreation opportunities; and to develop and deliver local biodiversity action plans.

We will undertake research to integrate the ecosystem approach into the development of policy. This core evidence will benchmark the value and benefits of the ecosystem approach. We will publish guidance based on the evidence to advise developers and other key stakeholders and activities that directly impact on Natura 2000, especially those who regulate development, to encourage them to minimise adverse impacts on habitats and species and to provide for biodiversity where possible.

G Description of key measures to achieve priorities

G.1.a General Priority Measures for Natura 2000

Type of activity	Description of measure	Target species/habitats/sites	Potential Financing sources*
Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.	<p>An agri-environment scheme for the next RDP period 2014-2021 is currently being developed, and the parameters will be set by the outcome of CAP Reform. The current agri-environment scheme 2007-2013 prioritises habitats in line with Department of Environment targets, and it is envisaged that the next scheme will do similar.</p> <p>Agri-environment measures: wild-life friendly production methods, habitat restoration on agricultural land, extensive livestock breeding, conservation of meadows, farm waterway and riparian zone management, field boundary restoration.</p>	<p>Priority habitats and sites will include Natura 2000 land and other designated sites.</p> <p>Targeted species will include those identified under Northern Ireland species action plans.</p>	EAFRD
Running costs of management bodies (maintenance of buildings and equipment)	To support management bodies who own or have responsibility for the management of Natura 2000 including: running costs incurred to meet depreciation of infrastructure, consumables, travel expenses, rents and leases etc.	Not linked to particular ecosystem, land category types, species or site	ESF, LIFE, 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*
Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.	<p>Agri-environment measures: wild-life friendly production methods, habitat restoration on agricultural land, appropriate livestock management in the hills and upland areas, conservation of meadows, farm waterway and riparian zone management, field boundary management.</p> <p>In the next round of funding an integrated scheme for forest habitats will be implemented.</p> <p>All of the above will be based on development of management plans</p>	<p>Priority habitats and sites will include Natura 2000 land and other designated sites.</p> <p>Targeted species will include those identified under Northern Ireland species action plans.</p>	EAFRD

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

Type of activity	Description of measure	Target species/habitats/sites* summary provided here – more detailed info on habitats and species available if required	Potential Financing sources*
Scientific studies/inventories for the identification of sites – surveys, inventories, mapping, condition	<p>Scientific studies, research personnel, workshops and meetings, creation of databases etc.</p> <p>Repeat Northern Ireland Countryside Survey.</p> <p>Support review of conservation objectives.</p> <p>Define concept of managing for ecological</p>	See F3 above for habitats and species needing additional surveys etc.	EAFRD/LIFE

assessment	outcomes.		
Preparation of management plans, strategies and schemes (including scientific studies and investigations needed for planning and implementation based on solid knowledge)	<p>Prepare and/or update of management and action plans, land use plans etc.</p> <p><i>(Habitat management plans, hydrology management plans, grazing plans, species management plans, recreation management plans)</i></p>	<p>Natural and semi-natural habitats and species - see F3 above</p> <p>SPA birds Birds of uplands Birds of woodland and scrub Birds of lowland wet grasslands Birds of lowland heaths and fens Birds of lowland dry grassland Birds of farmland</p>	Agri-environment
Consultation – public meetings, liaison with landowners	<p>Including costs incurred for the organisation of meetings and workshops, publication of consultation outcomes, financial support of stakeholders, improving communications, advisory support services etc</p> <p><i>(Grassland management plan, address recreational use issues, public meetings, meetings with landowners and managers regarding habitat management for SPA birds and persecution of birds of prey)</i></p>	<p>Habitats</p> <p>SPA birds</p>	EAFRD/INTERREG V/PEACE IV
Review of management plans, strategies and schemes	<p>Review and updating of management plans and strategies</p> <p><i>(e.g. grassland management plans, hydrological management plans, refreshing existing plans,</i></p>	All habitats	LIFE

	<i>recreational disturbance, hydrological issues)</i>		
Staff (conservation/project officers, wardens/rangers, workers)	Ongoing staff costs, marine rangers <i>(site management staff)</i>	All habitats	LIFE
Conservation management measures – maintenance and improvement of habitats’ favourable conservation status	Including restoration work, provision of wildlife passages, management of specific habitats, and preparation of management plans. <i>(e.g. Conservation objectives review and update, peatland rewetting, woodland management, heathland management including cutting and burning, grazing management including stocking rates, dunging and trampling, diffuse water pollution plans, hydrological management)</i>	All habitats	Agri-environment
Conservation management measures – maintenance and improvement of species’ favourable conservation status	Including restoration work, provision of wildlife passages, management of specific species (flora and fauna) and plans. <i>(e.g. woodland management, grazing management including stocking rates, dunging and poaching, maintenance/increase of dead wood for beetles, recreation management to avoid damage and disturbance to fragile species, maintenance of early successional habitat, implementation of Diffuse Water Pollution Plans to avoid enrichment, roosting commuting and foraging habitat management for bats; maintenance of confidentiality about locations,</i>	Non-avian species see F3 above SPA birds Birds of uplands Birds of woodland and scrub Birds of lowland wet grasslands Birds of lowland heaths Birds of lowland dry grassland Birds of farmland	Agri-environment, CES

	<i>management of recreation impacts, hydrology management)</i>		
Conservation Management measures in relation to invasive alien species (IAS)	<p>Including restoration work, infrastructure, management of specific species, and preparation of management plans.</p> <p><i>(e.g. pennywort, rhododendron, <u>Cotoneaster</u>, self-seeding trees)</i></p>	<p>Marine species, e.g.:</p> <p>Leathery sea squirt Carpet sea squirt Spartina Slipper limpet (Crepidula)</p> <p>Biosecurity measures to prevent further IAS</p>	EFF
Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions	<p>Agri-environmental measures: e.g. wildlife-friendly production methods, habitat restoration on agricultural land, extensive livestock breeding, conservation of meadows, etc.</p> <p>Forest-environmental measures: e.g. creation of exploitation-free zones, retention of dead wood, control or eradication of invasive alien species, afforestation or reforestation activities management of specific vegetation, etc.</p>	All habitats and species	Agri-environment
Monitoring and surveying	<p>Refers mainly to one-off survey costs related to monitoring and surveying activities, e.g. development of monitoring plans, methods and equipment and training of personnel.</p> <p><i>(e.g. Northern Ireland Countryside Survey, other national survey programmes to clarify species distribution)</i></p>	See F3 above	LIFE

Site Surveillance	Includes ongoing surveillance, wardening and patrolling activities. <i>(e.g. investigation of species fluctuations, sources of pollution, hydrological investigation, continuing work on the National Bat Monitoring Programme [NBMP])</i>	All habitats	LIFE/INTERREG
Training and education	Including production of handbooks, seminars, workshops and communication materials.	All habitats and species	Integrated Life Projects/INTERREG
Infrastructure needed for habitat or species restoration	Equipment acquisition and installation <i>(Measures to enable appropriate grazing e.g. fencing, water supply, housing. water level management)</i>	All habitats and species	Structural funds/Integrated Life Projects/INTERREG
Infrastructure for public access, interpretation, observatories and kiosks, etc.	Infrastructure for public use that is conducive to environmental protection and management <i>(Appropriate public access provision which ensures that any development does not result in the destruction or fragmentation of habitats; and to avoid/decrease disturbance to sensitive sites/species)</i>	All habitats and species	Structural funds/Integrated Life Projects/INTERREG

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

The following is the proposed programme for agri-environment funding in Northern Ireland taken from the lead competent authority for agricultural ecosystem support (taken from the Department of Agriculture and Rural Development). This is valuable support from the Northern Ireland agriculture sector for supporting Natura 2000 targets.

Thematic Objective	Activity	Output	Result
1. Strengthening research, technological development and innovation. Key Actions for EAFRD <ul style="list-style-type: none"> Cooperation between agriculture, food, forestry and forestry sectors. Pilot projects, development of new products, practices, processes and technologies, including introduction of low carbon and green technologies. Establishment and use of advisory services to improve economic and environmental performance. Setting up of operational group as part of the European Innovation Partnership for agricultural productivity and sustainability. 	Business Development groups to include support to young farmers.	Using evidence to target key environmental outcomes through appropriate environmental management.	EU Biodiversity Strategy targets 1 and 2 delivered and monitored through Favourable Conservation Status.
	<ul style="list-style-type: none"> Research, Knowledge and Technology Transfer Farms (RKTTF). Study tours Use of Nature Reserves to demonstrate best practice. 	Number of farmers participating in appropriate environmental management schemes and utilising TT farms to deliver.	Improved environmental and economic performance
2. Enhancing access to, use and quality of information and communication technologies. Key Actions for EAFRD Enhancing the accessibility, use and quality of ICT in rural areas accessible to all through, <ul style="list-style-type: none"> The creation, improvement and expansion of broadband infrastructure, ICT applications in support of the sustainability and competitiveness of rural areas and agriculture and food processing, E-content relevant to the development of rural tourism Promotion of digital competence outside education systems among farmers, forestry managers and rural businesses. 	Broadband infrastructure	Population supported by broadband / internet	Rural population benefiting from new or improved IT structures

•			
3. Enhancing the competitiveness of SME's, the agricultural sector and the fisheries and aquaculture sector. Key Actions for EAFRD Promote competitiveness in the agricultural sector by facilitating restructuring and generational renewal through, <ul style="list-style-type: none"> Supporting financial instruments for agriculture, forestry, food-processing and rural SMEs. Investments to improve the performance of an agricultural holding, processing, marketing and development of agricultural products and development and adaptation of agriculture. Business start-up aid for young farmers. Promote food chain organisation through <ul style="list-style-type: none"> Improve the interface between primary producers and processors, support for quality schemes, promotion activities, short supply chains and producer groups. Promote risk management	Business start-up aid for young farmers and new entrants to farming.	Number of new farm businesses benefiting from start-up grants	Jobs created in supported projects
	Investing in farm business development	Number of existing farm businesses benefiting from capital support	Changes in agricultural output of supported farms.
	Processing and marketing grant scheme	Number of agri-food businesses benefiting from capital support	Number of enterprises introducing new products and/or techniques
4. Supporting the shift towards a low-carbon economy in all sectors. Key Actions for EAFRD Increasing efficiency in energy use in agriculture and food processing through, <ul style="list-style-type: none"> Investments in more energy-efficient buildings, facilities, advice on energy efficiency. The supply and use of renewable sources of energy and of by products, wastes, residues and other non-food raw material for the purposes of the bio-economy through, <ul style="list-style-type: none"> Investments in on-farm production of renewable energy, pilot projects for improving by-product use, 	Biomass Processing Challenge Fund.	Number of renewable energy projects.	Number of operational projects achieving a carbon saving of at least 35% over conventional fossil fuel use.
	Manure Efficiency Technology Scheme (METS).	Number of farm holdings that received investment support.	Number of farm businesses adopting new environmental systems equipment.
	Nutrient efficiency scheme.	Number of nutrient management plans developed.	Percentage of land covered by nutrient management plans.
	Afforestation works and investments in forests.	Total Public expenditure.	Forest or other wooded area under management contracts contributing to carbon

<p>investments in new forestry technologies for the processing of biomass, investments in renewable energy infrastructures in rural areas.</p> <p>Reducing nitrous oxide and methane emissions from agriculture through,</p> <ul style="list-style-type: none">• Support for lower use of nitrogen fertilisers, improved livestock management practices, support for more climate friendly crop rotations. <p>Fostering carbon sequestration and emission reduction in agriculture and forestry through,</p> <ul style="list-style-type: none">• Forest planting and maintenance• Climate friendly management of new and existing forests, <p>Establishing or maintaining healthy grassland and maintaining peatlands.</p>	<p>Development of Environmental Risk Management systems</p> <p>Promotion to farmers of alternative crops and management which recognise carbon sequestration and soil carbon benefits</p>	<p>Certificates of competence under the Environment scheme</p> <p>Land managed to deliver carbon as well as 'production' benefits</p>	<p>sequestration.</p> <p>Increased efficiency and reduction of pollution</p> <p>Enhanced carbon storage (reduction in loss of carbon from poorly managed land (more forests, peatlands in good condition, increased health of semi-natural grasslands, agroforestry, etc. with multiple outputs</p>
<p>5. Promoting climate change adaptation and risk prevention and management.</p> <p><u>Key Actions for EAFRD</u></p> <p>Support for the improvement of sustainable water management (with regard to ecosystems) through,</p> <ul style="list-style-type: none">• Creation of on-farm water storage zones, water-efficient cropping patterns, management of forest protection belts against erosion. <p>Support for improving soil management through,</p> <ul style="list-style-type: none">• Support for practices preventing soil degradation such as low tillage, winter green cover and agro-forestry. <p>Ensure a high potential for adaptation to climate change and diseases and maintain genetic diversity especially via supporting local crop varieties and livestock breeds.</p>	<p>Encouraging whole farm management plans which target carbon conservation activities Application of ecosystem services (water purification, designated site management, biodiversity, tourism) Increased efficiency and income</p> <p>Development of farming techniques that reduce carbon release and promote sequestration Reduced loss of carbon Sustainable farm production</p> <p>Supporting the use of native breeds of cattle and sheep, grazing extensively on grassland. Resilient local sources of meat and milk Enhanced biodiversity and better carbon storage/reduced loss.</p> <p>Encouraging diversity of land management techniques Reduced likelihood of disease outbreaks in monocultures. Security of supply</p> <p>Promoting the net benefits of an integrated farm management Clear communications strategy that provides farmers with straightforward practical advice Understanding and application of whole farm management</p>		

	Encouragement of 'river boundary' treatments Dissipation of flood waters before flooding of occupied areas Increased wetland biodiversity and minimisation of damage and costs		
6. Protecting the environment and promoting resource efficiency. <u>Key Actions for EAFRD</u> Restoring and preserving biodiversity, including NATURA 2000 areas and high-nature value farming areas and the state of European Landscapes through, <ul style="list-style-type: none"> Promoting environmentally sound farming systems including organic farming, establishing or maintaining wildlife zones in farm and/or forest areas, compensation for economic disadvantages faced in relation to NATURA 2000 areas and official wildlife corridors, payments to farmers who undertake to pursue farming activity in areas facing significant natural constraints. Increasing efficiency in water use by agriculture through investment in water saving and efficient irrigation practices	Agri-environment Scheme.	Total number of contracts. Percentage of designated sites under environmental improvement schemes.	Monitoring of Favourable Conservation Status. Restoration and preservation of biodiversity including Natura 2000 achieved.
	Woodland expansion option. Forestry Plantation Scheme.	Total public expenditure.	Forest or other wooded area under management contracts supporting biodiversity. Restoration and preservation of biodiversity including Natura 2000 achieved.
	Organic Farming Scheme.	Total number of contracts.	Area under organic management.
	Areas of Natural Constraint. Development of agri-environment schemes including where appropriate compensation to farmers where land is managed to achieve a positive ecological outcome.	Number of supported holdings in areas of natural constraint and number of farmers in agri-environment schemes delivering ecological outcomes.	Area under successful agricultural land management through monitoring of Favourable Conservation Status. Restoration and preservation of biodiversity including Natura 2000 achieved.
7. Promoting sustainable transport and removing bottlenecks in key network infrastructures. <u>Key Actions for EAFRD</u> None stated for EAFRD	No EAFRD activity identified.		
8. Promoting employment and supporting labour mobility. <u>Key Actions for EAFRD</u> Facilitating diversification from the agricultural sector, creating new small enterprises and other forms of job	Business start-up aid for rural businesses including farm diversification.	Number of new businesses benefiting from start-up grants	Jobs created in supported projects.
	Investing in rural business development.	Number of existing rural businesses benefiting from capital	Changes in output of supported businesses.

creation in rural areas, through, <ul style="list-style-type: none"> • Business start-up aid for non-agricultural micro- and small enterprises in rural areas and investments in non-agricultural activities in rural areas. 		support	
9. Promoting social inclusion and combating poverty. Key Actions for EAFRD Fostering local development in rural areas. Support to LEADER local development, preparation and implementation of local development strategies, co-operation among territories and groups. Investments in all types of small scale infrastructure in rural areas and setting up, improvement or expansion of local basic services for the rural population especially in remote rural areas Actions aimed at improving the quality of life in an attractiveness of rural settlements (village renewal).	Anti-poverty and social inclusion programme <ul style="list-style-type: none"> • Fuel poverty / housing. • Access to health • Support for childcare places • Environmental enhancement, performance and sustainability including Natura and HNVPs • Village renewal • Rural transport 	Total Public expenditure	Rural population benefiting from new or improved services infrastructures. Maintain and restore ecosystems and their services (FCS)
10. Investing in education and skills and lifelong learning. Key Actions for EAFRD Fostering lifelong learning and vocational training in the agricultural and forestry sectors through, <ul style="list-style-type: none"> • Vocational training and skills acquisition in areas such as farm management, sustainable agricultural practices, quality improvements and the use of new technologies specific to agriculture and forestry and environmental management. • Demonstration activities to transfer knowledge between farmers about new practices, information and short-term exchanges and visits within the EU to promote the exchange of good farm and forestry 	Business development support <ul style="list-style-type: none"> • Land based development programme for young people based on farms, equine and horticulture businesses. • Business development groups • Healthy livestock – healthy bank balance • Milk Quality • Business development support for SMEs 	Number of participants	Number of participants working towards/achieving a qualification. Number of new technologies adopted. Improvement in milk quality. Improve favourable conservation status

management practices and environmental management <ul style="list-style-type: none"> • Lifelong learning and vocational training in rural areas in general e.g. training on business management or other skills necessary to diversify out of the sector. 	<ul style="list-style-type: none"> • Environmental management 		
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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*
Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.	<p>Agri-environment measures: conservation of coastal habitats and species.</p> <p>Management plans for marine Natura 2000</p>	<p>Priority habitats and sites will include Natura 2000 and other designated sites.</p> <p>Integration of Marine Protected Areas (SAC, SPA, Marine Conservation Zones, OSPAR and RAMSAR sites) into an ecologically coherent network.</p> <p>Targeted species will include those identified under Northern Ireland species action plans.</p>	EAFRD/EFF
<p>Conservation management measures – maintenance and improvement of habitats’ favourable conservation status?</p> <p>Infrastructure needed for habitat or species</p>	Including restoration work, provision of wildlife passages, management of specific habitats, and preparation of management plans.	<p>Marine, coastal and halophytic habitats</p> <p>Coastal sand dunes and continental dunes</p> <p>SPA seabirds</p>	National public. Potential for EU funding support e.g. through LIFE.

restoration? Compensatory measures to offset coastal squeeze losses at European sites			
Scientific studies/inventories for the identification of sites – surveys, inventories, mapping, condition assessment	Scientific studies, research personnel, workshops and meetings, creation of databases etc. <i>(E.g. identification of additional marine protected areas)</i>	Vertebrate species: mammals (marine) Higher Plants Work on Marine Strategy Framework Directive descriptors e.g. biodiversity, food webs, marine litter etc.	EFF/LIFE
Preparation of management plans, strategies and schemes (including scientific studies and investigations needed for planning and implementation based on solid knowledge)	Elaboration and/or update of management and action plans, land use plans etc. <i>(Appropriate fisheries management measures to be put in place by end 2016 to address outcomes of assessment under Article 6 of the Habitats Directive)</i>	Marine, coastal and halophytic habitats Rocky habitats and caves SPA birds Birds of coastal habitats Birds of estuarine habitats Birds of open sea and offshore rocks	EFF/LIFE
Consultation – public meetings, liaison with	Including costs incurred for the organisation of meetings and workshops, publication of consultation outcomes, financial support of	Marine, coastal and halophytic habitats	Structural funds/Integrated Life Projects/INTERREG

landowners and/or fishermen	<p>stakeholders, etc. Can include networking activities (travel, meetings and workshops).</p> <p>Compensatory measures to encourage fishermen to diversify into less destructive activities such as marine wildlife tourism, artesanal fishing, sub-aqua, sustainable seaweed harvesting.</p> <p><i>(Consultation to overcome public and political hostility to controversial coastal management, bringing together and applying existing examples of good practice. Also relevant to marine habitats and species, e.g. working with local stakeholders to monitor effectiveness of voluntary agreement in place to prevent shooting of seals)</i></p>	<p>Coastal sand dunes and continental dunes</p> <p>SPA birds</p> <p>Birds of coastal habitats</p> <p>Birds of estuarine habitats</p> <p>Birds of open sea and offshore rocks</p> <p>Vertebrate species: mammals (marine)</p> <p>S1364 <i>Halichoerus grypus</i>, grey seal</p> <p>S1365 <i>Phoca vitulina</i>, common seal</p>	
Conservation management measures – maintenance and improvement of habitats’ favourable conservation status	<p>Including restoration work, provision of wildlife passages, management of specific habitats, and preparation of management plans</p> <p><i>(E.g. removal of plantation woodland preventing natural landward rolling of dune systems, investment in livestock grazing, scrub/woodland clearance, sensitive dune excavations, active re-mobilisation of some dunes)</i></p>	Coastal sand dunes	LIFE
Conservation management measures – maintenance and improvement of species’	<p>Including restoration work, provision of wildlife passages, management of specific species (flora and fauna) and plans.</p> <p><i>E.g. replanting of food sources for coastal species affected by coastal squeeze, management</i></p>	<p>Invertebrate species: arthropods</p> <p>Higher Plants</p> <p>SPA birds</p> <p>Birds of coastal habitats</p>	LIFE

favourable conservation status	<i>of recreational activities including coastal access and fishing to avoid disturbance of sensitive species, maintenance of natural coastal processes mitigate coastal squeeze including delivering managed realignment, management of predation of eggs and chicks e.g. through partnership with RSPB current LIFE bid.</i>	Birds of estuarine habitats	
Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.	<p>Includes:</p> <ul style="list-style-type: none"> • <i>Agri-environmental measures</i>, e.g. wildlife-friendly production methods, habitat restoration on agricultural land, extensive livestock breeding, conservation of meadows, etc • <i>Forest-environmental measures</i>, e.g. creation of exploitation-free zones, retention of dead wood, control or eradication of invasive alien species, afforestation or reforestation activities, management of specific vegetation, etc. • <i>Aqua-environmental measures</i>, e.g. habitat maintenance in aquaculture zones etc. (relates to aquaculture rather than fishing). 	Higher Plants	EEF/EAFRD
Monitoring and surveying	<p>Refers mainly to one-off costs related to monitoring and surveying activities, e.g. development of monitoring plans, methods and equipment and training of personnel.</p> <p><i>(There remain a significant proportion of features unassessed or lacking baselines across</i></p>	<p>Marine, coastal and halophytic habitats</p> <p>Coastal sand dunes</p> <p>Rocky habitats and caves</p> <p>Vertebrate species: mammals (marine)</p>	Structural funds/Integrated Life Projects/INTERREG/National public

	<i>their distribution in marine Natura 2000 sites. See F3 above. Further monitoring/surveillance are needed to fill in these gaps. Development of understanding of atmospheric Nitrogen Deposition, water tables, and soil chemistry impacts on dune systems)</i>	S1364 <i>Halichoerus grypus</i> , grey seal S1365 <i>Phoca vitulina</i> , common seal S1349 <i>Tursiops truncatus</i> , Bottlenose dolphin S1351 <i>Phocoena phocoena</i> , harbour porpoise	
Site surveillance	Includes ongoing surveillance, wardening and patrolling activities. Can include personnel costs, consumables, travel etc in order to implement surveillance and guarding activities, including surveillance to control harmful recreational or economic activities and protect against wildfires.	Coastal sand dunes Marine, coastal and halophytic habitats Invertebrate species	Structural funds/Integrated Life Projects/INTERREG/National public
Training and education	Including production of handbooks, seminars, workshops and communication materials <i>(E.g. education to address public and political hostility to controversial coastal management, bringing together and applying existing examples of good practice)</i>	Marine, coastal and halophytic habitats Coastal sand dunes	Structural funds/Integrated Life Projects/INTERREG/National public
Infrastructure needed for habitat or species restoration	Includes an array of measures for the creation of specific infrastructure for the management of the environment, e.g. for water management in peat bogs and mines. Can include equipment acquisition (for equipment relevant to the running of protection and management institutions such as office and IT equipment,	Marine and coastal habitats	Structural funds/Integrated Life Projects/INTERREG/National public

	monitoring materials, boats, diving equipment, cameras, survey vessels, hydrophone arrays between NI and Scotland and in waters shared between NI and RoI etc)		
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**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*
Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.	Agri-environment measures: wild-life friendly production methods, habitat restoration on agricultural land, extensive livestock breeding, encourage farming practices which lead to carbon sequestration	Priority habitats and sites will include Natura 2000 land and other designated sites. Targeted species will include those identified under Northern Ireland species action plans.	EAFRD
Risk management (fire prevention and control, flooding etc)	Preparation of wardening and fire-control plans and the development of relevant infrastructure in areas of high fire risk.	All peatland habitats	EAFRD, LIFE, National public
Consultation – public meetings, liaison with landowners	Including costs incurred for the organisation of meetings and workshops, publication of consultation outcomes, financial support of stakeholders, etc. Can include networking activities (travel, meetings and workshops). <i>(E.g. working with enforcement/regulatory bodies to address poaching issues, working with stakeholders to revise some protected site boundaries, working with NGOs on developing and implementing a monitoring plan and to develop and implement a species recovery plan)</i>	Invertebrate species: molluscs S1029 <i>Margaritifera margaritifera</i> , Freshwater pearl mussel Vertebrate species: amphibians & reptiles Vertebrate species: mammals (terrestrial) S1355 <i>Lutra lutra</i> , otter	

Conservation management measures – maintenance and improvement of habitats’ favourable conservation status	Including restoration work, provision of wildlife passages, management of specific habitats, and preparation of management plans.	Rivers & Streams Bogs Fen Standing Open Water	Agri-environment
Conservation management measures – maintenance and improvement of species’ favourable conservation status	Including restoration work, provision of wildlife passages, management of specific species (flora and fauna) and plans.	<p>Invertebrate species: molluscs <i>S1013 Vertigo geyeri, Geyer's whorl snail</i> <i>S1014 Vertigo angustior, Narrow-mouthed whorl snail</i> <i>S1029 Margaritifera margaritifera</i>, Freshwater pearl mussel</p> <p>Invertebrate species: arthropods <i>S1092 Austropotamobius pallipes</i>, White-clawed crayfish</p> <p>SPA birds Birds of lowland freshwaters and their margins</p> <p>Freshwater Fish Species <i>S1095 Petromyzon marinus</i> Sea Lamprey; <i>S1099 Lampetra fluviatilis</i> River Lamprey; <i>S1096 Lampetra planeri</i> Brook Lamprey; <i>S1106</i> <i>Salmo salar</i> Atlantic Salmon;</p>	Agri-environment

		<p>SXXXX <i>Coregonus autumnalis</i> Pollan</p> <p>Vertebrate species: mammals (terrestrial) S1355 <i>Lutra lutra</i>, otter</p> <p>Higher Plants S1421 <i>Trichomanes speciosum</i> Killarney Fern</p>	
Conservation management measures in relation to invasive alien species (IAS)	Including restoration work, infrastructure, management of specific species, and preparation of management plans.	<p>Rivers & streams: Fen, Marsh & Swamp: Standing Open Water:</p> <p>Invertebrate species: arthropods S1092 <i>Austropotamobius pallipes</i>, White-clawed crayfish</p> <p>Higher Plants</p>	Agri-environment
Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.	<p>Includes:</p> <ul style="list-style-type: none"> • <i>Agri-environmental measures</i>, e.g. wildlife-friendly production methods, habitat restoration on agricultural land, extensive livestock breeding, conservation of meadows, etc • <i>Forest-environmental measures</i>, e.g. creation of exploitation-free zones, retention of dead wood, control or eradication of invasive alien species, 	<p>Rivers & streams</p> <p>Bogs</p> <p>Fen, Marsh & Swamp</p> <p>Standing Open Water</p> <p>Invertebrate species: molluscs S1013 <i>Vertigo geyeri</i>, Geyer's whorl</p>	Agri-environment

	<p>afforestation or reforestation activities, management of specific vegetation, etc.</p> <ul style="list-style-type: none"> • <i>Aqua-environnemental measures</i>, e.g. habitat maintenance in aquaculture zones etc. (relates to aquaculture rather than fishing). 	<p>snail S1014 <i>Vertigo angustior</i>, Narrow-mouthed whorl snail</p> <p>Vertebrate species: mammals (terrestrial) S1355 <i>Lutra lutra</i>, otter</p> <p>Freshwater Fish Species S1095 <i>Petromyzon marinus</i> Sea Lamprey; S1099 <i>Lampetra fluviatilis</i> River Lamprey; S1096 <i>Lampetra planeri</i> Salmon; S1102 <i>Alosa alosa</i> Allis Shad SXXXX <i>Coregonus autumnalis</i> Pollan</p> <p>SPA birds Birds of lowland freshwaters and their margins</p>	
Provision of services: compensation for rights foregone and loss of income and developing acceptability 'liaison' with neighbours	Costs of compensation, e.g. to farmers, foresters or other land owners or users for income forgone as a result of management prescriptions needed for Natura 2000.	All habitats	Agri-environment
Monitoring and surveying	Refers mainly to one-off costs related to monitoring and surveying activities, e.g. development of monitoring plans,	Invertebrate species: molluscs S1013 <i>Vertigo geyeri</i> , Geyer's whorl snail	LIFE

	methods and equipment and training of personnel.	S1014 <i>Vertigo angustior</i> , Narrow-mouthed whorl snail	
Site surveillance	Includes on-going surveillance, wardening and patrolling activities. Can include personnel costs, consumables, travel, etc in order to implement surveillance and guarding activities, including surveillance to control harmful recreational or economic activities and protect against wildfires.	Vertebrate species: mammals (terrestrial) S1355 <i>Lutra lutra</i> , otter S1106 <i>Salmo salar</i> Atlantic Salmon	LIFE
Training and education	Including production of handbooks, seminars, workshops and communication materials.	Vertebrate species: mammals (terrestrial)	Structural funds/Integrated Life Projects/INTERREG/National public
Land purchase, including compensation for development rights	Land purchase to achieve environmental protection and management schemes. (<i>Land acquisition to protect hydrological integrity of sites; land acquisition to protect river movement</i>)	All habitats:	Structural funds/Integrated Life Projects/INTERREG/National public

*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

Type of activity	Description of measure	Target species/habitats/sites	Potential Financing sources*
Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.	Agri-environment measures: encourage farming practices which lead to carbon sequestration and a reduction in greenhouse gases.	Priority habitats and sites will include Natura 2000 land and other designated sites. Targeted species will include those identified under Northern Ireland species action plans.	EAFRD
Carbon sequestration	Measures to enhance carbon soils	Organic soil habitats	LIFE
Conservation management measures – maintenance and improvement of habitats’ favourable conservation status Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions. Provision of services: compensation for rights foregone and loss of	Restore hydrology of raised bogs and fens.	Lowland and upland wetland sites (Habitats 7120, 7130, 7140, 7150, 7210, 7230)	Private funds: Potential to develop carbon offset/credits system to part-fund this wetland restoration. Private funds: Interest from water supply sector in upland restoration to improve water quality may allow private sector funds to be combined with public funds Structural funds/Integrated Life Projects/INTERREG/National public

income and developing acceptability 'liaison' with neighbours			
Conservation management measures – maintenance and improvement of habitats' favourable conservation status	<p>Restoration of lowland fen peat habitats in previously drained areas</p> <p><i>Reinstating semi-natural hydrology would encourage peat formation to sequester carbon (mitigation) and store greater volumes of water potentially reducing flood risk and increasing available water during dry periods (adaptation).</i></p>	7120, 7230	As above
<p>Conservation management measures – maintenance and improvement of habitats' favourable conservation status</p> <p>Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.</p> <p>Provision of services: compensation for rights foregone and loss of income and developing acceptability 'liaison'</p>	Floodplain restoration and reconnection	River habitats	<p>Flood risk management budgets combined with agri-environment</p> <p>Structural funds/Integrated Life Projects/INTERREG/National public</p>

with neighbours			
<p>Conservation management measures – maintenance and improvement of habitats’ favourable conservation status</p> <p>Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.</p> <p>Provision of services: compensation for rights foregone and loss of income and developing acceptability ‘liaison’ with neighbours</p>	<p>Managed realignment of coastal flood defences</p> <p><i>By moving or removing hard engineered coastal defences and allowing natural processes to develop new coastal habitats can be created sequestering carbon (mitigation) and providing natural flood and erosion protection (adaptation)</i></p>	<p>Sedimentary coastal habitats, in particular mudflats and saltmarsh (1140, 1310, 1320, 1330) but also dunes</p>	<p>National funds: Coastal flood risk management budgets</p>
<p>Conservation management measures – maintenance and improvement of habitats’ favourable conservation status</p> <p>Implementation of management schemes and agreements with</p>	<p>Woodland management</p> <p><i>Reinstating traditional management has the potential to restore favourable condition and sequester carbon (mitigation)</i></p>	<p>Woodlands</p>	<p>Structural funds/Integrated Life Projects/INTERREG/National public</p>

owners and managers of land or water to follow particular prescriptions.			
Scientific studies	Identify the contribution of Natura 2000 sites to ecosystem services.	Not linked to particular ecosystem or land category types	LIFE, National public
Conservation management measures	Develop priorities for landscape scale conservation and develop and implement a framework for the identification and protection of local wildlife sites and ecological networks (green infrastructure) to assist with the functioning and connectivity between Natura 2000 sites.	Not linked to particular ecosystem or land category types	LIFE, National public

**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

Type of activity	Description of measure	Target species/habitats/sites	Potential Financing sources*
Maintenance of facilities for public access and use of the sites, interpretation, observatories and kiosks etc.	<p>Including costs relating to guides, maps, related personnel</p> <p>To provide maintenance of public access routes within Natura 2000 sites with high recreational pressure.</p> <p><i>Maintaining infrastructure to enable visitor access to and enjoyment of sites including access routes, car parking facilities</i></p> <p><i>Maintaining site-based interpretation and signage that enables visitors to understand site and the opportunities to experience these</i></p>	All	Structural funds/Integrated Life Projects/INTERREG/National public/LEADER/national funding
Training and education	<p>Including production of handbooks, seminars, workshops and communication materials</p> <p><i>Provision of apprenticeship programmes that build the pool of skilled workforce able to deliver the aims of Natura 2000 sites</i></p> <p><i>Provision of training programmes to build skills amongst volunteers to contribute to Natura 2000 management and objective in Northern Ireland</i></p>	All	Structural funds/Integrated Life Projects/INTERREG/National public/LEADER/EARDF/national funding

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

Management and surveillance of sites which straddle the border between Northern Ireland and the Republic of Ireland and complementary measures between Northern Ireland and west Scotland (INTERREG and PEACE eligible programme areas).

Initial discussions have already taken place between officials from the two jurisdictions and have agreed to undertake joint working on these sites using most appropriate best practice techniques to ensure that when each MS describes a site or feature in favourable or unfavourable status exactly the same condition is being referred to.

All Annex I habitats and Annex II species in the cross-border sites in the island of Ireland will be targeted. INTERREG V and PEACE IV with national public money are potential financing sources.

Type of activity	Description of measure	Target species/habitats/sites	Potential Financing sources*
Management planning	Co-operation between Republic of Ireland and Northern Ireland to ensure complementary management planning on cross-border Natura 2000 sites	Transboundary (RoI/NI) Natura 2000	EAFRD, ERDF, EMFF, LIFE, INTERREG V, National public
Ongoing habitat management and monitoring	Implementation of agreed cross-border management measures	Transboundary (RoI/NI) Natura 2000	EAFRD, ERDF, EMFF, LIFE, INTERREG V, National public
Investment costs	Infrastructure required for management of cross-border Natura 2000 sites	Transboundary (RoI/NI) Natura 2000	EAFRD, ERDF, EMFF, LIFE, INTERREG V, possibly PEACE IV, National public

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

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

Feature (habitat type or species) (* denotes priority)		Conservation status (code from HD Article 17 report or BD Article 12 report)	Pressures and threats (codes from HD Article 17 report or BD Article 12 report)	Priority measure (from section G of PAF, possibly by coding)
Marine, Coastal & Halophytic				5, 7, 12, 17, 19, 21, 24
1110	Sandbanks which are slightly covered by sea water all the time	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1110-audit-Final.pdf	See link	
1130	Estuaries	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1130-audit-Final.pdf	See link	
1140	Mudflats and sandflats not covered by seawater at low tide	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1140-audit-Final.pdf	See link	
1150	Coastal lagoons*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1150-audit-Final.pdf	See link	
1160	Large shallow inlets and bays	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1160-audit-Final.pdf	See link	
1170	Reefs	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1170-audit-Final.pdf	See link	
1210	Annual vegetation of drift lines	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1210-audit-Final.pdf	See link	
1220	Perennial vegetation of stony banks	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1220-audit-Final.pdf	See link	
1230	Vegetated sea cliffs of the Atlantic and Baltic coasts	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1230-audit-Final.pdf	See link	

1310	<i>Salicornia</i> and other annuals colonising mud and sand	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1310-audit-Final.pdf	See link	
1320	<i>Spartina</i> swards (<i>Spartinion maritimae</i>)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1320-audit-Final.pdf	See link	
1330	Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H1330-audit-Final.pdf	See link	
Coastal sand dunes and continental dunes				7, 12, 17, 19, 21
2110	Embryonic shifting dunes	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H2110-audit-Final.pdf	See link	
2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H2120-audit-Final.pdf	See link	
2130	Fixed dunes with herbaceous vegetation ("grey dunes")*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H2130-audit-Final.pdf	See link	
2150	Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H2150-audit-Final.pdf	See link	
2160	Dunes with <i>Hippophae rhamnoides</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H2160-audit-Final.pdf	See link	
2170	Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H2170-audit-Final.pdf	See link	
2190	Humid dune slacks	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H2190-audit-Final.pdf	See link	
Freshwater habitats				5, 12, 14, 15, 16, 23
3130	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H3130-audit-Final.pdf	See link	

	<i>Isoëto-Nanojuncetea</i>			
3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H3140-audit-Final.pdf	See link	
3150	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> -type vegetation	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H3150-audit-Final.pdf	See link	
3160	Natural dystrophic lakes and ponds	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H3160-audit-Final.pdf	See link	
3260	Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H3260-audit-Final.pdf	See link	
Temperate heath and scrub				7, 8, 11, 12, 14, 15, 24, 25
4010	Northern Atlantic wet heaths with <i>Erica tetralix</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H4010-audit-Final.pdf	See link	
4030	European dry heaths	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H4030-audit-Final.pdf	See link	
Natural and semi-natural grassland formations				5, 7, 8, 12, 13, 14, 15, 19, 24, 25
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H6210-audit-Final.pdf	See link	
6230	Species-rich <i>Nardus</i> grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe)*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H6230-audit-Final.pdf	See link	
6410	<i>Molinia</i> meadows on calcareous,	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H6410-audit-Final.pdf	See link	

	peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	Final.pdf		
Raised bogs and mires and fens				5, 12, 14, 15, 16, 23
7110	Active raised bogs*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H7110-audit-Final.pdf	See link	
7120	Degraded raised bogs still capable of natural regeneration	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H7120-audit-Final.pdf	See link	
7130	Blanket bogs*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H7130-audit-Final.pdf	See link	
7150	Depressions on peat substrates of the <i>Rhynchosporion</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H7150-audit-Final.pdf	See link	
Rocky habitats and caves				14, 15
8240	Limestone pavements*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H8240-audit-Final.pdf	See link	
8310	Caves not open to the public	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H8310-audit-Final.pdf	See link	
8330	Submerged or partially submerged sea caves	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H8330-audit-Final.pdf	See link	
Forests				12, 13, 14, 15, 19, 24
9180	<i>Tilio-Acerion</i> forests of slopes, screes and ravines*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H9180-audit-Final.pdf	See link	
91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H91A0-audit-Final.pdf	See link	
91D0	Bog woodland*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-H91D0-audit-Final.pdf	See link	
Invertebrate species: molluscs				7, 13, 15, 17

1013	<i>Vertigo geyeri</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1013-audit-Final.pdf	See link	
1014	<i>Vertigo angustior</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1014-audit-Final.pdf	See link	
1029	<i>Margaritifera margaritifera</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1029-audit-Final.pdf	See link	
Invertebrate species: arthropods				13, 14, 15, 17, 19
1092	<i>Austropotamobius pallipes</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1092-audit-Final.pdf	See link	
Vertebrate species: fish				5, 13, 15
1095	<i>Petromyzon marinus</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1095-audit-Final.pdf	See link	
1096	<i>Lampetra planeri</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1096-audit-Final.pdf	See link	
1099	<i>Lampetra fluviatilis</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1099-audit-Final.pdf	See link	
1106	<i>Salmo salar</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1106-audit-Final.pdf	See link	
Vertebrate species: mammals (marine)				2, 7, 17
1349	<i>Tursiops truncatus</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1349-audit-Final.pdf	See link	
1351	<i>Phocoena phocoena</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1351-audit-Final.pdf	See link	
1364	<i>Halichoerus grypus</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1364-audit-Final.pdf	See link	
1365	<i>Phoca vitulina</i>	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1365-audit-Final.pdf	See link	
Lower plant species				13
1395	<i>Petalophyllum ralfsii</i> (Wils.) Nees & Gott.	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1395-audit-Final.pdf	See link	
Higher plant species				2, 5, 11, 13, 14, 15, 19,

1421	<i>Trichomanes speciosum</i> Willd.	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1421-audit-Final.pdf	See link	
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Section H: Monitoring, evaluation and updating of PAFs

The main tools for monitoring progress of Northern Ireland's PAF will be the reporting rounds for Article 17 and Article 12 in 2013 and 2020.

We would expect to be able to update the PAF in 2014 using information from the 2013 reporting round.

This information will be used to inform future iterations of the PAF.

Success in achieving improved conservation status will inform future iterations.

Successful schemes in the first few years (2014-2017) will be extended to additional habitats and species throughout the funding period.

A successful LIFE bid, similar to that secured by England, to develop Natura 2000 management plans would further enhance the PAF process.

Appendix 1: Habitats occurring in Northern Ireland included in Annex I of the Habitats Directive. * = priority habitat

Code	Habitat
H1110	Sandbanks which are slightly covered by sea water all the time
H1130	Estuaries
H1140	Mudflats and sandflats not covered by seawater at low tide
H1150*	Coastal lagoons
H1160	Large shallow inlets and bays
H1170	Reefs
H1180	Submarine structures made by leaking gases (*see note below)
H1210	Annual vegetation of drift lines
H1220	Perennial vegetation of stony banks
H1230	Vegetated sea cliffs of the Atlantic and Baltic coasts
H1310	<i>Salicornia</i> and other annuals colonising mud and sand
H1330	Atlantic salt meadows <i>Glauco-Puccinellietalia maritimae</i>
H2110	Embryonic shifting dunes
H2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> "white dunes"
H2130*	Fixed dunes with herbaceous vegetation "grey dunes"
H2150*	Atlantic decalcified fixed dunes <i>Calluno-Ulicetea</i>
H2170	Dunes with <i>Salix repens</i> ssp. <i>argentea</i> <i>Salicion arenariae</i>
H2190	Humid dune slacks
H3130	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>
H3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.
H3150	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> -type vegetation
H3160	Natural dystrophic lakes and ponds
H3180*	Turloughs
H3260	Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation
H4010	Northern Atlantic wet heaths with <i>Erica tetralix</i>
H4030	European dry heaths
H4060	Alpine and Boreal heaths
H6150	Siliceous alpine and boreal grasslands
H6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates <i>Festuco-Brometalia</i>
H6230*	Species-rich <i>Nardus</i> grassland, on siliceous substrates in mountain areas and submountain areas in continental Europe
H6410	<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils <i>Molinion caeruleae</i>
H6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
H7110*	Active raised bogs
H7120	Degraded raised bogs still capable of natural regeneration
H7130	Blanket bogs
H7140	Transition mires and quaking bogs

H7150	Depressions on peat substrates of the <i>Rhynchosporion</i>
H7210*	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>
H7220*	Petrifying springs with tufa formation <i>Cratoneurion</i>
H7230	Alkaline fens
H8110	Siliceous scree of the montane to snow levels <i>Androetalia alpinae</i> and <i>Galeopsietalia ladani</i>
H8120	Calcareous and calcshist screes of the montane to alpine levels <i>Thlaspietea rotundifolii</i>
H8210	Calcareous rocky slopes with chasmophytic vegetation
H8220	Siliceous rocky slopes with chasmophytic vegetation
H8240*	Limestone pavements
H8330	Submerged or partially submerged sea caves
H9180*	<i>Tilio-Acerion</i> forests of slopes, screes and ravines
H91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles
H91D0*	Bog woodland
H91E0*	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>

Appendix 2: Species occurring in Northern Ireland included in Annex II of the Habitats Directive. None are priority species. ** = SAC feature. * = Listed as present on an SAC.

Code	Species	Common Name
1013	<i>Vertigo geyeri</i>	Geyer's whorl snail
1014	<i>Vertigo angustior</i>	Narrow-mouthed whorl snail**
1029	<i>Margaritifera margaritifera</i>	Freshwater pearl mussel**
1065	<i>Euphydryas (Eurodryas, Hypodryas) aurinia</i>	Marsh fritillary butterfly**
1092	<i>Austropotamobius pallipes</i>	White-clawed (or Atlantic stream) crayfish**
1095	<i>Petromyzon marinus</i>	Sea lamprey*
1096	<i>Lampetra planeri</i>	Brook lamprey*
1099	<i>Lampetra fluviatilis</i>	River lamprey*
1106	<i>Salmo salar</i>	Atlantic salmon**
1102	<i>Alosa alosa</i>	Allis Shad
1349	<i>Tursiops truncatus</i>	Bottlenose dolphin*
1351	<i>Phocoena phocoena</i>	Harbour porpoise**
1355	<i>Lutra lutra</i>	Otter**
1364	<i>Halichoerus grypus</i>	Grey seal**
1365	<i>Phoca vitulina</i>	Common seal**
1395	<i>Petalophyllum ralfsii</i> (Wils.) Nees & Gott.	Petalwort*
1421	<i>Trichomanes speciosum</i> Wild.	Killarney fern
1528	<i>Saxifraga hirculus</i> L.	Marsh saxifrage**
1393	<i>Drepanocladus (Hamatocaulis) vernicosus</i>	Slender green feather-moss

Appendix 3: Birds Directive species, Northern Ireland

Species Name	Natura Site Selection Cited Feature	Natura Site Cited Assemblage Feature
Alca torda	X	
Anas acuta		X
Anas clypeata		X
Anas crecca		X
Anas penelope		X
Anas platyrhynchos		X
Anas strepera		X
Anser anser		X
Arenaria interpres	X	
Aythya ferina	X	
Aythya fuligula	X	
Aythya marila	X	
Branta bernicla hrota	X	
Bucephala clangula	X	X
Calidris alpina alpina		X
Calidris canuta	X	
Charadrius hiaticula	X	
Circus cyaneus	X	
Cygnus columbianus bewickii	X	
Cygnus cygnus	X	
Falco columbarius	X	
Falco peregrinus	X	
Fratercula arctica		X
Fulica atra		X
Fulmarus glacialis		X
Haematopus ostralegus		X
Larus argentatus		X
Larus canus		X
Larus fuscus		X
Limosa lapponica	X	
Mergus serrator		X
Numenius arquata		X
Phalacrocorax carbo	X	X
Pluvialis apricaria	X	
Pluvialis squatarola		X
Podiceps cristatus	X	X
Puffinus puffinus	X	
Rissa tridactyla	X	
Somateria mollissima		X
Sterna dougallii	X	
Sterna hirundo	X	
Sterna paradisaea	X	
Sterna sandvicensis	X	

Tadorna tadorna	X	
Tachybaptus ruficollis		X
Tringa totanus	X	X
Uria aalge	X	
Vanellus vanellus		X