

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

**England** 

(Final Version 28 March 2012)

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

# C.1 Relevant legal provisions

In England the Habitats and Birds Directives are transposed into law through the *The Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations"*.

On 1 April 2010 <u>The Conservation of Habitats and Species Regulations 2010</u> replaced The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) in England and Wales (and to a limited degree, Scotland – as regards reserved matters).

The Conservation of Habitats and Species Regulations 2010 apply in the terrestrial environment and in territorial waters out to 12 nautical miles. The EU Habitats and Wild Birds Directives are transposed in UK offshore waters by separate regulations – The Offshore Marine Conservation (Natural Habitats &c.) Regulations 2007 (as amended).

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

Progress in establishing conservation objectives

All Natura 2000 sites (terrestrial and marine) in England have conservation objectives in place, however in March 2012 Government published the results of the Habitats and Wild Birds Directives Implementation Review. This set out measures to improve implementation of these Directives, including a measure to improve the content of Conservation Objectives.

To this end, in June 2012, Natural England and JNCC published a proposed new approach to improving the content of Conservation Objectives for terrestrial and marine Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in England, together with a statement of how this would be prioritised.

High level conservation objectives for terrestrial SACs and SPAs have already been revised to make them clearer and more readily available for developers. These are available at:

http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/sac/conservationobjectives.aspx

The next steps are to:

- 1. Build on these high level terrestrial Conservation Objectives, and
- 2. Review and update the existing Conservation Objectives for all European Marine sites.

In doing so, we will aim to produce (where possible) quantified targets for:

- The populations and distribution of qualifying species.
- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure of qualifying natural habitats and habitats of qualifying species:
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;

Following a consultation on the proposed approach, updated

	Conservation Objectives will be produced from April 2013, with a view to			
0/ of citoc with	completing the work within 2 years.			
% of sites with plans completed	0% (but see below for further detail)			
% of sites with	Terrestrial 10%			
plans in	Marine			
preparation	One site in English waters – the Severn Estuary SAC.			
% of sites with	Terrestrial 90%			
no plans	Marine			
	50.5 % of marine N2K for English waters have management schemes			
	(but see below re caveats around management plans).			
Link to web sites	Marine			
with plans & any guidelines	Berwickshire and North Northumberland Coast EMS <a href="http://www.xbordercurrents.co.uk/">http://www.xbordercurrents.co.uk/</a>			
	Dee Estuary EMS			
	http://www.naturalengland.org.uk/ourwork/marine/mpa/deeestuaryreg33.a			
	<u>spx</u>			
	Duddon Estuary EMS http://www.duddon-estuary.org.uk/index.html			
	Exe Estuary EMS http://www.exe-			
	estuary.org/index/the_exe_estuary_management_partnership.htm			
	Flamborough Head EMS <a href="http://www.hull.ac.uk/coastalobs/flamborough/conservation/index.html">http://www.hull.ac.uk/coastalobs/flamborough/conservation/index.html</a>			
	Humber Estuary EMS <a href="http://www.humberems.co.uk/">http://www.humberems.co.uk/</a>			
	Lundy EMS http://www.lundyisland.co.uk/			
	Mersey Estuary EMS <a href="http://www.merseybasin.org.uk/">http://www.merseybasin.org.uk/</a>			
	Morecambe Bay EMS http://www.merseybasin.org.uk/			
	Plymouth Sound and Estuaries EMS <a href="http://www.plymouth.gov.uk/tecf">http://www.plymouth.gov.uk/tecf</a>			
	Poole Harbour EMS <a href="http://www.pooleharbouraqmp.co.uk/">http://www.pooleharbouraqmp.co.uk/</a>			
	Solent Maritime EMS <a href="http://www.solentems.org.uk/">http://www.solentems.org.uk/</a>			
	South Wight Maritime EMS <a href="http://www.coastalwight.gov.uk/swmems/introduction.htm">http://www.coastalwight.gov.uk/swmems/introduction.htm</a>			
	Swale and Medway EMS <a href="http://www.msep.org.uk/">http://www.msep.org.uk/</a>			
	Teesmouth and Cleveland Coast EMS <a href="http://www.inca.uk.com/wp-content/uploads/2009/08/marine-site.pdf">http://www.inca.uk.com/wp-content/uploads/2009/08/marine-site.pdf</a>			
	Thames Estuary and Marshes EMS <a href="http://www.thamesweb.com/">http://www.thamesweb.com/</a>			

North East Kent (Thanet) EMS http://www.thanetcoast.org.uk/

The Wash and North Norfolk Coast EMS <a href="http://www.washandnorthnorfolkcoastems.co.uk/">http://www.washandnorthnorfolkcoastems.co.uk/</a>

More background information on plans and comment on other instruments/appr oaches for management planning, information on and plans for particular sectors (e.g. forestry etc.)

## **Comprehensive management plans for Natura 2000 sites**

There is no obligation to produce management plans for Natura 2000 sites under the Habitats Directive, although this is considered good practice.

A comprehensive management plan should:

- indicate the habitat types and/or species and their localities for which conservation measures are planned;
- identify the actual status of the habitat types and species and the desired status which should be reached through the conservation measures:
- · define clear and achievable conservation objectives and
- identify the necessary measures together with the means and a time schedule which can contribute to meeting those objectives.

Comprehensive management plans which cover part or all of a Natura 2000 site include our National Nature Reserve plans which fulfil the above criteria and cover 10% of the area of English Natura 2000 sites. Other plans are Marine Management Schemes, Forestry Design Plans, and WFD River Basin Management Plans. These comply in part, but do not fulfil all the above criteria.

This said, in England all Natura 2000 sites and their underpinning SSSIs have publically available:

- Citations of the legally protected habitats and species,
- Conservation Objectives (high level)
- A list of operations requiring consent, (management scheme for marine sites)
- a statement of Natural England's views on how the special features should be managed (Views About Management (VAMs) on land, Conservation advice package in marine)
- the condition of all the features of the site (at individual site unit level on land).

Furthermore, on a database, accessible by all major partners (the Major Landowners group) all units that are monitored in an unfavourable condition, have a suite of remedies, that will deliver the site into a favourable condition agreed together with timescales for action.

#### Marine

There are 18 *Management Schemes* covering 18 European Marine Sites (which often comprise more than one N2K site), in English inshore waters. These fully encompass **41 marine N2K and part of one marine N2K**. That is **49%** of the English marine N2K sites by area have management schemes completed.

Collectively this information fulfils the above five criteria. However, it is recognised that join up would be beneficial.

The LIFE+ project - Improvement Programme for England's Natura 2000 sites- will contribute to this as it will put in place action plans for all Natura 2000 sites which will identify:

- the risks and issues that are impacting on and/or threatening the condition of the site:
- which mechanisms could be used to address them;
- how much it will cost and where the money could come from;
- the key stakeholders who would need to take action to implement the mechanisms and when it should happen.
- it will also identify where no suitable mechanisms currently exist, which in turn will initiate work to devise solutions

Defra has recently undertaken a review of the effectiveness of the management schemes for English marine SACs/ SPAs and are currently working on how best to implement the findings. This will set the context on whether additional management schemes are needed *for English waters*, or indeed if the current approach needs to be amended.

# C.3 Relevant government and non-governmental plans

A range of government and non-government plans are listed, ranging from strategic planning documents to plans specific to conservation. Each has an influence on the conservation of Natura 2000 sites although the degree of influence varies depending on the nature of the plan.

#### **Terrestrial**

#### Spatial Plans - Regional

- Regional Spatial Strategies (RSS) provided regional level planning frameworks for the regions of England outside London (Greater London is covered by the London Plan). They were subject to Habitats Regulations assessment regarding potential impact on Natura 2000 sites. RSSs are legally extant, but they may be withdrawn subject to ongoing legal challenge.
- National Park Management Plans Statutory management plans, which set key policy for the park area. They set out a long term strategic vision together with shorter term priorities for action and partnership working, primarily to guide the delivery of the National Park purposes. National Park Management Plans operate alongside Local Development Frameworks.
- Shoreline Management Plans (SMP) A SMP is a large-scale assessment of the risks associated with coastal processes and helps reduce these risks to people and the developed, historic and natural environments. SMPs include recommendations for climate change adaptation and the maintenance of Natura 2000 sites in Favourable Conservation Status. The second generation of SMPs are currently in production.

#### Spatial Plans - Local

• Local Plans / Local Development Frameworks (LDFs) – The spatial planning strategy in England and Wales. Each LDF must include Development Plan Documents (DPDs), which outline the key development goals of the local development framework. Once adopted, development control decisions must be made in accordance with DPDs, unless material considerations indicate otherwise. They play a key role in protecting Natura 2000 sites, through the prevention of inappropriate developments at a strategic level. LDFs should take into account the requirements of Natura 2000 sites and are subject to assessment under the provisions of the Habitats Directive.

#### Fresh Water

- River Basin Management Plans (Water Framework Directive) Identify the main issues for the water environment and what we need to do to tackle them, as required under the Water Framework Directive. They set out measures required to improve the condition status of water-dependent Natura 2000 'protected areas'.
- Water Company Asset Management Plans Plans produced by each Water Company which set out proposed spending plans for the next 5 years. Natural England works to ensure that their plans contain measures that will enable them to deliver their statutory obligations for Natura 2000 sites.
- Water Company Water Resource Management Plans Define how each water company will meet customer demand over the next 25 years, including tackling growth and dealing with climate change. Natural England works to ensure that the requirements of Natura 2000 sites are embedded into these plans.
- Drought Plans Produced by Water Companies and the Environment Agency to outline how water resources will be managed during drought periods, including a definition of roles and responsibilities. They include ways of reconciling the competing needs of public water supply with the environment, including Natura 2000 requirements.
- Water Level Management Plans (WLMPs) Provide details of how water levels should be managed for the purposes of conservation on certain water level dependent Sites

of Special Scientific Interest, a subset of which are also Natura 2000 sites. Developed by the Environment Agency or Internal Drainage Boards.

- Catchment Abstraction Strategies (CAMS) Produced by the Environment Agency to assess how much water is reliably available in a catchment to appropriately determine time-limited abstraction licences. CAMS aim to safeguard water resources despite competing pressures and ensure integrated catchment management, including the needs of water dependent Natura 2000 sites.
- Catchment Flood Management Plans (CMPs) Produced by the Environment Agency to help us understand the scale and extent of flooding now and in the future and set policies for managing flood risk in each catchment. They are used to inform planning and decision making, including for conservation purposes. They indicate the likely extent of flood impact (positive or negative) on Natura 2000 sites within each catchment.
- Surface Water Management Plans (SWMPs) Plans which local authorities may produce in consultation with key local partners, which outline the preferred surface water management strategy in a given location. SWMPs should take into account measures required to achieve objectives in European legislation, including the Habitats Directive.

# Landscape and Biodiversity

- AONB Management Plans A statutory requirement for local authorities and Conservation Boards. The plans contain policies and actions to conserve the natural beauty of an AONB and to help public enjoyment of it. They set out key issues for biodiversity and policies to conserve and enhance it, including for Natura 2000 sites.
- Forest Design Plans Produced by the Forestry Commission, these plans set out the management proposals for the next 30 years for the woodlands for which the Forestry Commission have direct responsibility. They include tree felling and re-establishment. Where a forest is coincident with a Natura 2000 site, the Forest Design Plan must take into account the requirements of the protected site.
- UK Post-2010 Biodiversity Framework Sets the strategic framework and broad enabling structure for action for the four countries of the UK to meet commitments under the Convention of Biological Diversity ('Aichi' targets). It aims to ensure that devolved implementation takes account of how national activities relate to international and European commitments, including those of the Habitats Directive.
- Green Infrastructure Strategies Provide an over-arching vision for managing green spaces and water environments in an area. They can recognise the functional importance of 'green and blue' infrastructure as a regeneration and sustainable development tool and in adapting and mitigating climate change. They may also highlight areas which need protection as well as opportunities for improving habitat functionality through the creation or enhancement of green infrastructure. They would be expected to recognise Natura 2000 sites and may provide a forum for setting out 'off-site' issues relevant to Natura 2000 site protection.
- Section 41 of NERC Act 2006 requires the Secretary of State to take reasonably practical steps to further the conservation of habitats and species afforded conservation priority.
- England Biodiversity Strategy sets out an overarching objective to halt overall biodiversity loss with high-level outcomes to show what achieving this will mean in practice. The high-level outcomes, amongst other things, seek to improve the condition of Natura 2000 sites and increase the extent, condition and connectivity of habitats listed in the Habitats Directive.

#### Marine

• EU Marine Strategy Framework Directive (MSFD) - will provide the overarching framework for delivering Good Environmental Status (GES) for our seas. Although GES is not completely equivalent to Favourable Conservation Status (FCS) the delivery of GES is

expected to contribute to FCS for Annex I and II habitats and species, particularly outside of SACs and SPAs. The UK is finalising targets and indicators for MSFD biodiversity descriptors and some of the proposed targets directly reflect FCS targets and therefore assumes that no additional measures will be needed beyond those already in existence. The MSFD specifically refers to Marine Protected Areas (MPAs) being one the measures needed to deliver GES which explicitly links the Natura network.

- Water Framework Directive (WFD) contains targets to deliver GES in marine and transitional waters out to 1nm (in England) by 2020.
- UK Marine Policy Statement contains a commitment to establishing an ecologically coherent network of Marine Protected Areas (MPAs) comprising Natura 2000 sites and national MPAs. New national MPAs (known as Marine Conservation Zones [MCZs] in English waters) are currently being selected and it is expected that although these new national sites will not protect Annex I and II features, they may contribute to the overall coherence of the network. It is however possible that the new MCZs may make a contribution to wider measures, to protect important bird habitat outside SPAs and therefore contribute to meeting GES as required under the MSFD.

#### 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	None			
	224 Forest Natura 2000 payments	Not utilised in RDPE			
	214 agri-environment	VS (Very significant).			
		Environmental Stewardship			
		Schemes (ELS & HLS, plus organic			
		and uplands sub-schemes),			
		Environmentally Sensitive Areas			
		scheme, & Countryside Stewardship			
		scheme. Total £50.5m per annum in			
		direct management support			
		payments.			
	225 forest-environment measures	£1.8 million			
Other relevant (national/regional) payment schemes		MU (Moderate use) Conservation			
for Territory		and Enhancement Scheme (C.E.S)			

Summary of key Natura 2000 related measures being undertaken under fund: Ongoing support for the agricultural management necessary to prevent deterioration and secure favourable conservation status on N2K sites is provided through Environmental Stewardship Schemes (ELS & HLS, plus organic and uplands sub-schemes), the Environmentally Sensitive Areas scheme, and the Countryside Stewardship scheme. Woodland grant schemes are used to secure and maintain favourable condition of woodland *Natura* 2000 sites.

Key lessons learnt and obstacles encountered:

1. Voluntary measures within the ERDP/RDPE have proved very effective in preventing deterioration and improving the condition of *Natura* 2000 sites (the corresponding regulatory measures are a rarely-used last resort for agricultural management).

- 2. Transitional agri-environment provisions between the end of the current programme and the start of the next programme are required, to sustain the management of Natura 2000 sites and to comply with Council Directive 92/43/EEC. This is especially significant for Natura 2000 sites that are in 'Unfavourable Recovering Condition'. Transitional provisions are necessary as we do not believe that the negotiations will be completed in time leaving a legal gap, which means we cannot sign up new agreements which are the main means by which we deliver on the range of these bio-diversity commitments.
- 3. The current RDPE scheme has not proved capable of supporting the restoration of all moorland Natura 2000 sites adversely affected by old, state-supported drainage programmes. For example, initial upfront capital costs are a barrier to moorland management, noting that Environmental Stewardship payments can only be made once the work has been done.

The investment priorities for the EAFRD under the thematic objective "Protecting the environment and promoting resource efficiency" under the Partnership Agreement which could give potential to support Natura2000 outcomes include:

- restoring, preserving and enhancing biodiversity, including in NATURA 2000 areas and farming systems with a high nature value, and the state of European landscapes, by promoting: environmentally sound farming systems, including organic farming;
- establishing and/or maintaining wildlife zones in farm and/or forest areas;
- granting payments to farmers and/or forest holders for economic disadvantages faced in NATURA 2000 areas and designated wildlife corridors, and;
- payments to farmers who undertake to pursue farming in mountain areas and other areas facing significant natural constraints;

reward collective action to deliver environmental public goods.

# 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	NU
	Axis 2	NU
	Axis 3	NU
	Axis 4	NI
Other (national/reg	jional) payment schemes for	
Territory		

Summary of key Natura 2000 related measures being undertaken under fund:

The EFF management authority, the Marine Management Organisation (MMO), have informed us that EFF funds have not been used to improve the management of N2K sites in inshore English waters. However Defra are hoping to look at how EMFF will be applied in the future and it may be that these funds can help contribute to the aim of having fishing better managed in and around English marine Natura 2000 sites. This represents a significant opportunity to contribute to the revised policy approach to management of

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

fisheries within English European Marine Sites including the introduction of iVMS systems; effort limitation of affected fisheries; mitigation of displacement; and the introduction of environmentally sensitive fishing gear.

Key lessons learnt and obstacles encountered:

The potential to enable Natura2000 management to be funded through EFF has not been taken up in the UK. More will need to be done to integrate Natura 2000 outcomes into the EMFF to enable sustainable marine management in future.

The investment priorities for the EMFF under the thematic objective "Protecting the environment and promoting resource efficiency" under the Partnership Agreement which could give potential to support Natura 2000 outcomes include:

 investment in eco-innovation, such as iVMS and fleet adaptation, more selective fishing gear and other innovations 21/43 reducing the impact of fisheries and aquaculture on the environment to secure Natura 2000 conservation objectives and MSFD objectives, and; investment in aquaculture with a high level of environmental protection and provision of environmental services.

The Marine Stewardship Council/Seafish led project inshore will output 'sustainability recommendations' for fisheries at a IFCA district level over the next 18 months. EMFF and Life have a role in helping these fisheries get onto a sustainable footing and contribute to meeting N2K conservation objectives.

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)

Provision	Level of Use*
Category 51	NU
Category 55	NU
Category 56	NU
INTERREG	NU
fund (ESF)	NU
	Category 51 Category 55 Category 56 INTERREG

Summary of key Natura 2000 related measures being undertaken under fund:

Key lessons learnt and obstacles encountered:

ERDF funds are primarily aimed at economic development. It has proved challenging to gain recognition within the programmes, of the economic benefits of the natural environment, and hence the opportunities to encourage investment in the management of the Natura 2000 network have not been clear. The Partnership Agreement provides an opportunity to consider sustainable growth and investment in Natura 2000 and wider biodiversity across the EU funds.

The recent document "Position of the Commission services on the development of the Partnership Agreement and programmes in the United Kingdom for the period 2014-2020" identifies that "Coordination between policies and complementarity of interventions are key conditions for successful implementation of the CSF Funds. The Funds also need to jointly address several thematic objectives. Government departments and managing authorities responsible for the implementation of the CSF Funds should work closely together on the preparation, implementation, monitoring and evaluation of the Partnership Agreement and programmes. It is essential that all Funds operate in an integrated way at delivery level."

Significant improvements could be made, particularly in terms of alignment of Life and EMFF.

Furthermore, it proposes that priority 3 (of 3) in the UK should be - **Promoting an environmentally friendly and resource-efficient economy,** and states that: "The CSF Funds should support improvement of the management and environmental protection of natural resources in order to move towards a greener economy and meet the major environmental policy challenges, such as halting biodiversity loss by 2020 or achieving good status for all EU waters, including surface and groundwater, by 2015. **Some major issues need to be tackled in the UK,** such as water quality and efficiency, enhancement of **biodiversity and habitats**, and improvement of soil management and forestry."

There are significant opportunities with regard to the management of inshore fishing – current management is suboptimal from both a resource exploitation and environmental protection perspective. With improved spatial management, and a reduction in over-capacity in the inshore fleet, and additional management such as effort restrictions, it should be possible for fishermen to fish less, without economic loss but with an improved level of environmental resilience/protection compared to current conditions.

The related Thematic Objectives in the Partnership Agreement that relate to this priority area are:

- Supporting the shift towards a low-carbon economy in all sectors
- Protecting the environment and promoting resource efficiency

And under the second bullet it lists:

 Preservation and enhancement of biodiversity and the state of European landscapes through more targeted agri-environment schemes and the protection of Natura 2000 and high Nature Value Farming areas and promotion of collective action to deliver environmental public goods and organic farming.

Furthermore, investment priorities for the ERDF under the thematic objective *Protecting the environment and promoting resource efficiency* lists:

investment in green infrastructure, including in Natura 2000 sites and other territories
to promote the protection and restoration of biodiversity and ecosystem services,
climate change mitigation and adaptation, protection against floods and fires, coastal
protection, soil protection and other risk prevention measures, decrease the
fragmentation of natural areas, increase water availability, and restore heavily
modified sites and habitats

To fully realise the potential of ERDF to support true sustainable growth through enabling investment in green infrastructure connected with the Natura2000 network, the partnership agreement and operational programme for ERDF in England should allow the capability to reflect the value of the natural environment and enable such objectives to be eligible actions under the fund.

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 B	iodiversity	
Summary of key N			
PROJECT TITLE/ REF		SUMMARY OF CONSERVATION MEASURES BEING UNDERTAKEN	LIFE+ Funding (m€)
Reintroducing the great bustard <i>Otis tarda</i> to southern England  LIFE09 NAT/UK/000020	01 Sep 2010 to 31 Aug 2015	<ul> <li>The LIFE+ project will increase the population of great bustards on Salisbury Plain by extending the reintroduction programme to support the establishment of a self-sustaining population over the longer term. The project will include: <ul> <li>A five-year release programme;</li> <li>The establishment of 'management areas' to provide optimal conditions for release;</li> <li>Monitoring to improve understanding of the interaction between released bustards and their environment;</li> <li>Protection of birds from threats such as predation and disturbance;</li> <li>The development of a long term strategy to guide work in the project area and across the UK; and</li> <li>The development of agri-environment options to improve the suitability of the wider countryside for the species.</li> </ul> </li> </ul>	1,636,631.00
Moor life: Active blanket bog restoration in the South Pennine Moors LIFE08 NAT/UK/000202	01 Apr 2010 to 30 Apr 2015	<ul> <li>The main purpose of the project is:</li> <li>to protect the 1 600 ha of active blanket bog by reducing the erosion on adjacent degraded peatland.</li> <li>To achieve this, the project aims to restore 862 ha of active blanket bog through stabilisation, diversification and gully blocking.</li> <li>to ensure the future sustainability of the blanket bog, the project also aims to carry out wildfire mitigation actions while also raising public awareness of wildfire risk and restoration.</li> <li>to develop knowledge and understanding by effective communication to practitioners and policy makers.</li> </ul>	5,018,142.00
Alde – Ore Estuary Securing a sustainable future for wildlife LIFE08 NAT/UK/000199	01 Apr 2010 to 31 Mar 2014	To establish a functional, efficient and sustainable infrastructure for water management and control of the coastal lagoons at Havergate Island and the coastal lagoons and marshes at Orford Ness. This will provide long-term improvements to habitat conditions and enable adaptation to the effects of climate change including changing rainfall patterns and rises in sea-level.	533,145.00

		<ul> <li>To carry out sustainable habitat management, targeted at Annex 1 breeding bird species and habitats, including the creation of new breeding sites and improvements to existing sites and habitats.</li> <li>To significantly improve the protection for</li> </ul>	
		Annex 1 breeding bird species from predation and disturbance by red fox and brown rat, through fencing, ditching, remote monitoring work and direct predator control measures.	
		To monitor and evaluate the effects of the proposed management systems on the Annex 1 bird species and other significant habitats and species during the project and to feed this information into future site management plans.	
		To implement systems to manage and control improper access onto the southern section of Orford Ness spit to prevent increasing damage to shingle habitats.	
		To improve the visitor experience at both of the sites and to disseminate the project results to a wide European audience of site managers, ecologists and the general public.	
TaCTICS Tackling Climate change related threats to an important coastal SPA in Eastern	01 Jan 2009 to 31 Dec 2012	<ul> <li>The project has two main objectives:</li> <li>to protect the freshwater habitats from loss as a result of coastal erosion;</li> <li>to mitigate and compensate for the inevitable loss of important brackish marsh.</li> </ul>	1,004,830.00
England  LIFE07  NAT/UK/000938		The project will implement a 'managed realignment' scheme at Titchwell Marsh in response to climate change by:  • strengthening two seawalls to protect the freshwater habitats for at least the next 50 years  • breaching a third, seaward wall with the	
		loss of 11ha of brackish marsh.  To compensate for this loss of brackish marsh and to provide breeding sites for avocet:  • several islands will be created within the freshwater marsh.  • New habitat will be provided at the RSPB's	
		Lincolnshire Washes reserve adjacent to the Wash SPA.  The project is thus an example of using mitigation and compensation in the context of	
		Natura 2000.  The RSPB will promote the project as a case	

	study for raising awareness of the impacts of climate change on coastlines and their wildlife.	
	Total EU contribution (m€)	8,192,748.00

Key lessons learnt and obstacles encountered:

There has not been a coordinated strategic approach to utilising the LIFE+ fund to achieve our Natura 2000 ambitions in England. This has resulted in a piecemeal approach that has not made the best use of available resources and expertise to fully mobilise this fund and use the full UK indicative national allocation.

There are steps in place by Defra and by the Natural England-led IPENS LIFE+ project to improve this situation for the future. We are confident that these efforts will result in a higher quantity and quality of bids to the new LIFE programme from 2014 onwards with better coordination of efforts and resources across the natural environment sector in England.

Key obstacles have included complexity of the bidding process, the long time it takes to receive a decision, scarcity of match-funding, insufficient central resource to develop a strategic approach to funding and support applicants and the lack of a coordinated approach as mentioned above.

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)	NU
Public/Private Partnership financing schemes	NU
Use of innovative financing	NU
Other (specify)	NU

Summary of key Natura 2000 related measures being undertaken under fund:

FP7 has a thematic area covering 'Environment (including climate change)' and the total amount allocated to this theme during 2007-2013 is €1.89 billion. This thematic area has the ability to cover projects under a number of headings including - soil research, biodiversity, urban development, integrated resource management or integrated forest research. All of the headings listed above could relate to N2K sites and management. However, looking at the database of projects that have been funded to date, none are aimed solely at N2K sites. Although projects largely help to improve general knowledge on environmental matters, most are only linked loosely by N2K type of habitat and species rather than individual sites. There is also a tendency for projects to be very specific and research focussed with an emphasis on pure ecological work rather than looking at practical conservation problems.

Other innovative funding- carbon sales, biodiversity offsets, payment of ecosystem services and from planning and development control, are not yet sufficiently developed to comment on their applicability to N2K sites.

Key lessons learnt and obstacles encountered:

It has been particularly difficult to fund N2K projects from programmes that have a principal socio-economic purpose.

Some of the research funding could concentrate more on finding and testing practical conservation problems and solutions rather than purely theoretical research.

There are opportunities for the UK to improve co-ordination or lead projects and perhaps

there are also opportunities for government agencies to improve links with potential organisations and raise awareness of the benefits of FP7 and its potential relevance to N2K work.

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

# E Current estimate of financial needs for management of Natura 2000 for the territory

## Estimated financial needs identified in the 2008 EU questionnaire (England)

#### **Terrestrial sites**

Investment costs (one-off) £5.5m

Management planning (one-off) £5.6m

Management planning (recurrent - annual) £2.8m

Habitat management and monitoring (recurrent - annual) £66.7m

# Marine – estimated costs to Govt (and its dependent bodies) for the management of European Marine Sites 2014-2020

England has around 50 European Marine Sites (EMS) out to 12nautical miles (NM) and this will increase as additional SPAs are added to the network. Costs for management are estimated and subject to significant variables depending on site complexity, risk and geographical location. Some sites require very little management whilst others will require significant investment to achieve favourable conservation status of designated features. For these reasons the figures given below are very much estimates based on the best knowledge available.

#### **Establishment of Natura 2000 sites**

The total costs to complete the SPA series in English inshore waters are not known and it is not yet known whether any additional SACs will be added to the series. The following is a breakdown of approximate known costs:

Administration of site selection process 2013 -2016 = £0.5m Scientific studies and monitoring 2014 -2016 = £0.56m Preparation of conservation advice 2013 - 2016 = £2.1m Pilot new conservation advice 2013/14 = £250k **TOTAL = £3.41m between 2013 and 2016** 

#### **Management Planning**

This applies to Management Scheme development and administration Estimated to be on average £50k per site per year **TOTAL £2.5m per year (approx**)

## Ongoing habitat management and monitoring

Monitoring and survey across all Natura 2000 sites (likely to increase as new SPAs come on line) **TOTAL approx £1.2m per year** 

Site surveillance £64k per site per year **TOTAL** approx £3.8m per year

Investment costs

There may also be additional investment costs including those associated with procurement of underwater equipment, boats and other specialist marine survey equipment but these costs are not currently known.

#### Water

As yet there are no financial estimates for Water Framework Directive requirements for management of Natura 2000 protected areas. These will be developed by the Environment Agency who are to undertake a cost benefit analysis of measures.

#### River restoration

The Environment Agency report: "Estimating costs of delivering the river restoration element of the SSSI PSA target (final report January 2008)", made an estimate of river restoration costs using standard estimates across all rivers. It is the only formally published national cost estimate of river restoration and anticipated £147million based on "quick wins". This is being superseded and further cost estimates made in a range of ways on SSSI/SAC rivers. Nevertheless, it has been very difficult to make any accurate assessment of overall costs, which may be significantly lower or higher.

Currently, restoration is being implemented using a mixture of EA and NE WFD Grant in Aid, Catchment Restoration Funds, FCRM Biodiversity Outcome Measure funding, environmental stewardship, and European funding. It is clear from work done to date that river restoration will not be delivered by any one funding source and is the responsibility of multiple organisations.

# Agri environment

Costs for the management of Natura 2000 sites using agri-environment measures are given in the table below and summarised in figures 1 and 2 (2012-13).

Future Natura 2000 agri-environment costs (to 2020) are estimated to be in the region of £54.4m per annum. This includes requirements for capital spend but only relates to on-site "agri-environment" costs for terrestrial habitats within the series. It excludes costs relating to woodland, rivers and open water sites and any off-site works such as those required to deal with diffuse pollution or air pollution.

Table 1 Natura 2000 Area covered by Agri environment agreement by habitat

Natura 2000 AES area (ha)	Woodland	Marine	Coastal	Wetland	Agric (incl FPGM)	Totals
Natura HLS area	10,988	908	5,154	107,530	136,858	261,438
Natura ESA area	1,202	54	439	35,461	41,809	78,966
Natura CSS area	657	514	1,238	18,619	16,187	37,215

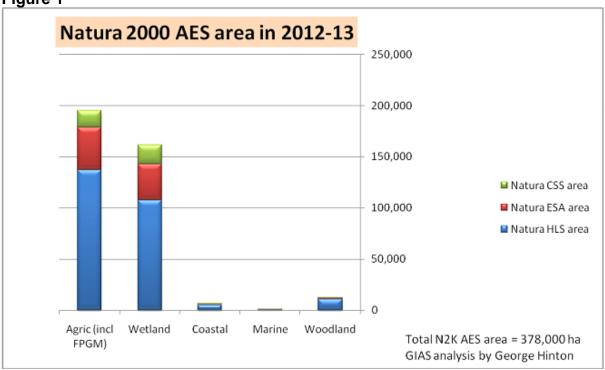
377,618

Table 2 Natura 2000 Agri-environment spend by habitat

Natura 2000					Agric (incl	
AES spend	Woodland	Marine	Coastal	Wetland	FPGM)	Totals
Natura HLS						
spend	£5,286,753	£195,720	£1,986,791	£13,348,894	£21,461,842	£42,280,000
Natura ESA						
spend	£82,613	£11,031	£35,579	£2,865,639	£3,644,809	£6,639,671
Natura CSS						
spend	£29,974	£6,918	£86,533	£799,225	£641,641	£1,564,291

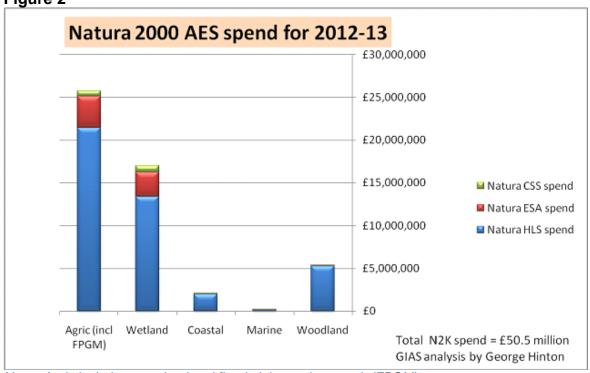
£50,483,962

Figure 1



Note: Agric includes grassland and flood plain grazing marsh (FPGM)

Figure 2



Note: Agric includes grassland and flood plain grazing marsh (FPGM)

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

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

The following table is taken from the 2008 Article 17 future prospects report. This will require updating when the next report is published.

Note Section F2 provides an overview of strategic and specific measures in England which will contribute to the good functioning of the Natura 2000 network, having regard to the EU Biodiversity 2020 Strategy.

# SAC Annex I priority habitats and Annex II priority species

Number of priority Annex I habitats: 19

Number of priority Annex II species: 1

EU code	Current name as adopted in Directive 97/62/EC	Number of SACs	Habitats: Future prospects yes = identified as priority for increased conservation action to 2013, or for marine habitats where the Future Prospects are "Bad and Deteriorating", "Inadequate" or "Unknown" as set out in the Article 17 Report 2007.) Species: Art17 overall conclusion (unfav, etc.)
Annex I	priority habitats		
H1150	Coastal lagoons	12	Yes
H1340	Inland salt meadows	1	
H2130	Fixed dunes with herbaceous vegetation ("grey dunes")	16	Yes
H2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	5	Yes
H3170	Mediterranean temporary ponds	1	
H4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	5	
H4040	Dry Atlantic coastal heaths with <i>Erica</i> vagans	1	

H6211	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (important orchid sites)	11	
H6230	Species-rich Nardus grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) (qualifying feature only on English SACs)	3	Yes
H7110	Active raised bogs	10	
H7130	Blanket bogs	10	Yes
H7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	11	Yes
H7220	Petrifying springs with tufa formation (Cratoneurion)	7	Yes
H7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	2	Yes
H8240	Limestone pavements	6	Yes
H9180	Tilio-Acerion forests of slopes, screes and ravines	26	
H91D0	Bog woodland	8	
H91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)	30	
H91J0	Taxus baccata woods of the British Isles	12	
Annex II	priority species		
S1390	Marsupella profunda Lindb. (Western Rustwort)	3	Unfavourable - bad and deteriorating

F.2 Summary of priorities for other habitats and species covered by nature Directives having regard to the need for to 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)

# **Strategic Context**

#### 1) Natural Environment White Paper

"The Natural Choice: Securing the value of nature" was presented to Parliament in June 2011. It is a bold statement outlining the Government's vision for the natural environment over the next 50 years, backed up with practical action to deliver that ambition. It promotes an ambitious, integrated approach, creating a resilient ecological network across England. Its

objectives are to move from net biodiversity loss to net gain, by supporting healthy, well-functioning ecosystems and coherent ecological networks.

## 2) England Biodiversity 2020 Strategy

Defra (2011) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services* provides a comprehensive picture of how we are implementing our international and EU commitments. It sets out the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea. It builds on the successful work that has gone before, but also seeks to deliver a real step change. The mission for this strategy, for the next decade, is:

"to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people."

#### Priorities for action are:

- a more integrated large-scale approach to conservation on land and at sea
- putting people at the heart of biodiversity policy
- reducing environmental pressures
- improving our knowledge

The priorities and a set of key actions below them contribute to achieving the strategies outcomes and link to the CBD 'Aichi' targets. Key actions cover a wide range of topics including ecological networks to safeguard ecosystem services, targeted action for the recovery of priority species, water management, addressing air pollution, developing new and innovative financing mechanisms, research and improved communication of evidence.

#### Measures

Measures which will contribute to the achievement of the England Biodiversity 2020 strategy outcomes include:

#### 1) For Protected Areas:

#### EU Biogeographical Seminars Process for Natura 2000 Site Management

The European Commission announced in the 2020 EU Biodiversity Strategy, that it will organise a new round of Biogeographical Seminars focused on Natura 2000 Site Management:

Action 1d) "The Commission, together with Member States, will establish by 2012 a process to promote the sharing of experience, good practice and cross-border collaboration on the management of Natura 2000, within the biogeographical frameworks set out in the Habitats Directive."

#### Rationale

In a note to the Nature Directives in November 2010, the Commission outlined the rationale for organising a new round of biogeographic seminars. As the Natura 2000 designation process is largely complete for terrestrial sites, there is now need to focus on ensuring effective site protection, management and restoration. Additionally, as information on the conservation status of habitats and species has been collected through the Article 17 monitoring process, the Commission wants to establish a process for analysing and discussing the results. It is also necessary to ensure coherence in management, monitoring, financing and reporting to establish Natura 2000 as a coherent ecological network.

Through this process and following the recent Atlantic Biogeographic Seminar, England is now in the process of working with other country agencies, JNCC and Defra in the UK to develop proposals to address habitat condition on sites which have been identified as in

Unfavourable/Bad condition through the 2007 Article 17 process, but detail is not yet available to include in the PAF. However the commitment has already been made to running a UK wide workshop in 2013 on nitrogen.

## SSSI targets

The England Biodiversity 2020 Strategy (2011) includes outcomes for 2020 to improve the condition of Sites of Special Scientific Interest (SSSI), UK priority habitats, and species. The SSSI and priority habitat improvements are combined into one outcome:

"Better wildlife habitats with 90% of priority habitats in favourable or recovering condition and at least 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition:"

This outcome builds on the achievements of the previous 2010 SSSI Public Service Agreement target.

Natural England is charged with co-ordinating and reporting on the actions to deliver SSSI improvements. With 81% of SSSI area also designated as a Natura 2000 site, there is a very strong inter-dependency of both outcome and the desired actions across both suites of sites.

A co-ordinated programme of actions across partners to deliver the 2020 SSSI outcome includes measures to:

- move features into unfavourable recovering condition (known as Remedies);
- and to manage threats to the condition of unfavourable recovering and favourable features (known as Condition Threats).

These processes identify factors that are (Remedies), or might (Condition Threats), affect condition; the actions to address them; the organisation responsible for implementing the action; a timescale for completion of the action; and the ability to track implementation of the action. Aggregation of these actions provides the basis for agreeing annual delivery targets across key partners.

Government's expectation is that designated sites (SSSIs) should also contribute to improving the condition of non-designated priority habitats and range restricted species, where this will not impact on designated features (e.g. SSSI or Natura 2000). Natural England is working with partners to develop this concept, and has undertaken work internally to support staff in understanding the scope for encompassing non-designated features in the management and assessment of protected sites.

**Detailed Notification Review of SSSIs** – A three year review of Sites of Special Scientific Interest (SSSIs) to assess the adequacy of the protected area series in England for various habitats and species. The review will also consider Natura 2000 sites. This work includes the identification of important populations of various species that are present on existing SSSIs, but which have not been notified as a key feature of those sites. Potential new protected areas are also being assessed, and surveyed if necessary and four potential new SSSIs have already been identified for great crested newts. The work may result in boundary changes to ensure boundaries enable favourable conservation status.

**Review of conservation objectives** – In response to recommendations in the Government Habitats and Wild Birds Directives Implementation Review (March 2012), Natural England and JNCC have published a proposed approach to improving conservation objectives for all terrestrial and marine SACs and SPAs. Following a consultation on the approach in Autumn

2012, work is due to start in April 2013, aiming for completion in 2 years (see C2 for further information)

In addition to all of the above, implementing actions within River Restoration Plans and meeting Water Framework Directive requirements for management of Natura 2000 protected areas will also contribute the EU 2020 target.

#### 2) In the wider environment:

The relevant Biodiversity 2020 targets include; 90% of priority habitats in favourable or recovering condition; more, bigger and less fragmented areas for wildlife, with no net loss of priority habitat and an increase in overall extent of priority habitats by at least 200,000ha; 17% of land and inland water conserved to safeguard biodiversity and ecosystem services; and restoration of at least 15% of degraded ecosystems as a contribution to climate change mitigation and adaptation. Activities include:

#### Terrestrial Biodiversity Group Activities

The Terrestrial Biodiversity Group (TBG) is responsible for delivering outcomes 1 and 3 of Biodiversity 2020. The group is chaired by Natural England and reports to the Defra Biodiversity Programme Board. Work completed so far includes drafting a 3 year priority habitat delivery plan; agreeing definitions and success criteria for priority habitats and ecosystem services; and work to agree success measures and trajectories for S41 species. Future work will include identifying and quantifying gaps in delivery and considering options to maximise resources for biodiversity.

#### Nature Improvement Areas (NIAs)

12 initial NIAs have been selected. They are led by local partnerships and supported by £7.5 million of Government funding. NIAs embody the more holistic approach to the environment signalled by the Natural Environment White Paper and the England Biodiversity 2020 Strategy. They will join up objectives for biodiversity, water, soils, farming and the low-carbon economy to improve the functioning of ecosystems and their services. In doing this they will enhance our natural environment, restore habitat and encourage local people to get involved with nature. The initial 12 NIAs cover hundreds of thousands of hectares and encompass several Natura 2000 sites.

#### 3) Examples of species specific projects

The biodiversity 2020 target relating to species requires an overall improvement in the status of our wildlife and prevention of further human induced extinctions of known threatened species. Activities include:

- Development of a "Great Crested Newt Surveillance and Monitoring Package" for England (Defra, JNCC, ARC, Froglife and Pond Conservation). It will have the specific aim of supporting the planning and delivery of conservation work for this species under the England Biodiversity Strategy.
- Natural England's Farmland Butterfly Initiative to specifically target HLS to benefit *Euphydryas aurinia* Marsh Fritillary and 5 other butterfly species.
- EA control programme for Signal Crayfish and creation of refuges (free of Signal Crayfish) for the native species *Austropotamobius pallipes*.
- Gortyna borelii lunata Fishers Estuarine Moth programme of monitoring and planting up of the larval food plant in more sustainable locations.

- Anisus vorticulus Little Ramshorn Whirlpool Snail- Investigation at Pevensey Levels into the impact of a non-native invasive plant species on the snail and the potential consequences of eradicating the plant on the snail population.
- Vertigo spp. Piloting of a species surveillance programme in 2012.
- Cypripedium calceolus propagation of plants from seed at Kew/Wakehurst Place and reintroduction to a number of sites in its former range.
- Bat species National Bat Monitoring Programme. Also undertaking surveys on the existing network of Barbastelle Woodland Survey SAC sites in England .

# SAC Annex I habitats and Annex II species covered in this section

Number of non-priority Annex I habitats:	52
Number of non-priority Annex I habitats prioritised <sup>1</sup> for conservation action:	24
Percentage of non-priority Annex I habitats prioritised for conservation action:	46.2%
Number of non-priority Annex II species:	40
Number of non-priority Annex II species prioritised <sup>2</sup> for conservation action:	36
Percentage of non-priority Annex II species prioritised for conservation action:	90%

EU code	Current name as adopted in Directive 97/62/EC	Number of SACs
<u>H1110</u>	Sandbanks which are slightly covered by sea water all the time	8
<u>H1130</u>	Estuaries	10
<u>H1140</u>	Mudflats and sandflats not covered by seawater at low tide	11
<u>H1160</u>	Large shallow inlets and bays	5
<u>H1170</u>	Reefs	16
<u>H1210</u>	Annual vegetation of drift lines	12
<u>H1310</u>	Salicornia and other annuals colonising mud and sand	12
<u>H1320</u>	Spartina swards (Spartinion maritimae)	11
<u>H1330</u>	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	17
<u>H2170</u>	Dunes with Salix repens ssp. argentea (Salicion arenariae)	7

<sup>&</sup>lt;sup>1</sup> Habitats considered as priority for increased conservation action if listed in JNCC (2009) Acting on the outcomes of the Favourable Conservation Status report: UK Annex I terrestrial and freshwater habitats - an assessment of priorities for increased conservation action; and for marine where the Future Prospects are "Bad and Deteriorating", "Inadequate" or "Unknown" as set out in the Article 17 Report 2007.

<sup>&</sup>lt;sup>2</sup> Species considered as priority for increased conservation action if the 2007 '2<sup>nd</sup> UK Report on Implementation of the Habitats Directive' (Article 17 report) lists their status as 'unknown' or 'unfavourable' *and/or* they are listed on the UK section 41 list of 'Habitats and species of principal importance for the conservation of biodiversity in England'

<u>H2190</u>	Humid dune slacks	13
<u>H3140</u>	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	7
<u>H3150</u>	Natural eutrophic lakes with <i>Magnopotamion</i> or Hydrocharition-type vegetation	3
<u>H3260</u>	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	13
<u>H4010</u>	Northern Atlantic wet heaths with Erica tetralix	29
<u>H4030</u>	European dry heaths	60
<u>H4060</u>	Alpine and Boreal heaths	2
<u>H6150</u>	Siliceous alpine and boreal grasslands	3
<u>H6510</u>	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	5
<u>H7140</u>	Transition mires and quaking bogs	17
H7230	Alkaline fens	19
H8210	Calcareous rocky slopes with chasmophytic vegetation	5
<u>H8330</u>	Submerged or partially submerged sea caves	5
<u>H91A0</u>	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	21
<u>S1013</u>	Vertigo geyeri	2
<u>S1014</u>	Vertigo angustior	2
<u>S1015</u>	Vertigo genesii	1
<u>S1016</u>	Vertigo moulinsiana	9
<u>S4056</u>	Anisus vorticulus	3
<u>S1029</u>	Margaritifera margaritifera	8
<u>S1044</u>	Coenagrion mercurial	7
<u>S1065</u>	Euphydryas (Eurodryas, Hypodryas) aurinia	14
<u>S1079</u>	Limoniscus violaceus	3
<u>S4035</u>	Gortyna borelii lunata	0
<u>S1092</u>	Austropotamobius pallipes	14
<u>S1095</u>	Petromyzon marinus	19
<u>S1096</u>	Lampetra planeri	21
<u>S1099</u>	Lampetra fluviatilis	15
<u>S1102</u>	Alosa alosa	8

<u>S1103</u>	Alosa fallax (Mainly Wales & Severn Estuary)	12
<u>S1106</u>	Salmo salar	16
<u>S1149</u>	Cobitis taenia	5
<u>S1163</u>	Cottus gobio	23
<u>S1166</u>	Triturus cristatus	45
<u>S1303</u>	Rhinolophus hipposideros	19
<u>S1304</u>	Rhinolophus ferrumequinum	17
<u>S1308</u>	Barbastella barbastellus	11
<u>S1323</u>	Myotis bechsteinii	12
<u>S1349</u>	Tursiops truncates	4
<u>S1351</u>	Phocoena phocoena	7
<u>S1355</u>	Lutra lutra	34
<u>S1365</u>	Phoca vitulina	4
<u>S1395</u>	Petalophyllum ralfsii (Wils.) Nees & Gott.	7
<u>S1441</u>	Rumex rupestris	7
<u>S1528</u>	Saxifraga hirculus L.	2
<u>S1614</u>	Apium repens (Jacq.) Lag.	1
<u>S1654</u>	Gentianella anglica (Pugsley) E.F. Warburg	17
<u>S1831</u>	Luronium natans (L.) Raf.	5
<u>S1902</u>	Cypripedium calceolus L.	1
<u>S1903</u>	Liparis loeselii (L.) Rich.	1

# Birds listed as SPA qualifying features (either as a species or as part of an assemblage)

Number of SPA bird species

Number of SPA bird species prioritised<sup>3</sup> for conservation action

49

Percentage of non-priority SPA bird species prioritised for conservation action

42.6 %

SPA qualifying feature	Birds of Conservation Concern <sup>4</sup>	UK priority species	Population trend
Black-throated Diver	Amber	Priority	stable
Great northern diver	Amber	Priority	decline
Red-necked grebe	Amber		decline
Balearic shearwater	Red	Priority	
Shag	Amber		decline
Bittern	Red	Priority	increase
Bewick's swan	Amber	Priority	decline
European white-fronted goose		Priority	decline
Brent goose	Amber	Priority	stable
Shelduck	Amber		decline
Mallard	Amber		decline
Pintail	Amber		decline
Pochard	Amber		decline
Scaup	Red	Priority	decline

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<sup>&</sup>lt;sup>3</sup> Bird species considered priority for increased conservation action if listed Birds of Conservation Concern (Amber or Red) (http://www.bto.org/sites/default/files/u12/bocc3.pdf), included in the UK List of Priority Species and Habitats (Section 41 of the NERC Act 2006), and/or showing a declining population trend.

<sup>&</sup>lt;sup>4</sup> The UK's leading bird conservation organisations have worked together on the third quantitative review of the status of the birds that occur regularly here, published in 2009, this updates the previous review from 2002. A total of 246 species have been assessed against a set of objective criteria to place each on one of three lists – green, amber and red – indicating an increasing level of conservation concern.

Eider	Amber		decline
Long-tailed duck			decline
Common scoter	Red	Priority	stable
Velvet scoter	Amber		decline
Goldeneye	Amber		decline
Smew	Amber		decline
Red-breasted merganser			decline
Hen harrier	Red	Priority	decline
Merlin	Amber		decline
Red grouse	Amber	Priority	
Black grouse	Red	Priority	
Oystercatcher	Amber		decline
Stone curlew	Amber	Priority	increase
Ringed plover	Amber		decline
Golden plover	Amber		decline
Lapwing	Red	Priority	decline
Dunlin	Red		decline
Ruff	Red		decline
Black-tailed godwit	Red	Priority	increase
Whimbrel	Red		stable
Curlew	Amber	Priority	decline
Redshank	Amber		decline
Turnstone	Amber		decline
Lesser black-backed gull	Amber		decline
Herring gull	Red	Priority	decline
Kittiwake	Amber		decline
Sandwich tern	Amber		decline
Roseate tern	Red	Priority	Increase
Nightjar	Red	Priority	Increase
Woodlark	Amber	Priority	stable
Ring ouzel	Red	Priority	
Savi's warbler	Red	Priority	stable

Aquatic warbler	Red	Priority	decline
Wood warbler	Red	Priority	
Twite	Red	Priority	decline

# 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

Key strategic priorities to facilitate the contribution of ecosystem services that Natura 2000 can offer:

Functioning ecosystems as the key underpinning element of the ecosystem approach and ecosystem services. This should be particularly emphasised for inshore marine fisheries which are reliant on high quality natural environment to maintain the resource. Inshore fisheries often deliver significant economic benefits into isolated and disadvantaged geographic areas which should be recognised when considering strategic priorities — although Natura 2000 sites will not deliver sustainable fisheries per-se they will contribute to the quality of the marine ecosystem and may have some local fisheries benefits.

- Ensuring that hydrological processes and functioning are optimal. Potentially including issues around both rivers and estuaries, outside of the Natura 2000 network as well as within (depending on the boundary), issues of water quality and quantity (land management associated), fisheries and water regulation in terms of flood alleviation or otherwise flood plains, river restoration.
- Ensuring that soils (including upland and lowland peat) are optimal to underpin biodiversity and ecosystem services.
- Restoration of degraded ecosystems.
- Green infrastructure to connect / reconnect ecosystems. As well as helping to improve ecosystem integrity this contributes to ecosystem services, particularly of education, cultural services and tourism.
- Woodlands for the wide range of services they provide including climate change mitigation.
- Management of non-native invasive species because of the threat they pose to native flora and fauna and their potential to disrupt ecosystem health.

Habitat Type	Ecosystem Services <sup>5</sup>
Rivers	Water quantity (potable water, Industrial use of water)

<sup>&</sup>lt;sup>5</sup> Source "What Nature can do for You", Defra October 2010

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	T
	Crops, plants, livestock, fish, etc. (wild & domesticated) <i>(food, fertiliser)</i>
	Wild species diversity inc. microbes (natural medicine)
	Meaningful places (aesthetics, recreation, tourism)
	Socially valued landscapes, waterscapes and wildlife (aesthetics, recreation, tourism)
	Climate regulation (avoidance of climate stress)
	Hazard regulation – vegetation & other habitats (flood protection)
	Purification (clean air, clean water, clean soils)
Open water	Water quantity (potable water, Industrial use of water)
	Crops, plants, livestock, fish, etc. (wild & domesticated) <i>(food, fertiliser)</i>
	Wild species diversity inc. microbes (natural medicine)
	Meaningful places (aesthetics, recreation, tourism)
	Socially valued landscapes, waterscapes and wildlife (aesthetics, recreation, tourism)
	Climate regulation (avoidance of climate stress)
	Hazard regulation – vegetation & other habitats (flood protection)
	Purification (clean air, clean water, clean soils)
Wetlands	Water quantity (potable water, Industrial use of water)
	Crops, plants, livestock, fish, etc. (wild & domesticated) (food, fertiliser)
	Wild species diversity inc. microbes (natural medicine)
	Meaningful places (aesthetics, recreation, tourism)
	Socially valued landscapes, waterscapes and wildlife (aesthetics, recreation, tourism)
	Climate regulation (avoidance of climate stress)
	Waste breakdown & detoxification (pollution control, waste removal)

	Hazard regulation – vegetation & other habitats
	(flood protection)
	Purification (clean air, clean water, clean soils)
Grassland	Crops, plants, livestock, fish, etc. (wild & domesticated) (food, fertiliser)
	Wild species diversity inc. microbes (natural medicine)
	Meaningful places (aesthetics, recreation, tourism)
	Socially valued landscapes, waterscapes and wildlife (aesthetics, recreation, tourism)
	Climate regulation (avoidance of climate stress)
	Purification (clean air, clean water, clean soils)
Woodland	Crops, plants, livestock, fish, etc. (wild & domesticated) (food, fertiliser)
	Trees (timber, avoidance of climate stress)
	Wild species diversity inc. microbes (natural medicine)
	Meaningful places (aesthetics, recreation, tourism)
	Socially valued landscapes, waterscapes and wildlife (aesthetics, recreation, tourism)
	Climate regulation (avoidance of climate stress)
	Purification (clean air, clean water, clean soils)
Heathland	Wild species diversity inc. microbes (natural medicine)
	Meaningful places (aesthetics, recreation, tourism) Socially valued landscapes, waterscapes and wildlife (aesthetics, recreation, tourism)
	Climate regulation (avoidance of climate stress)
	Purification (clean air, clean water, clean soils)
Coastal	Crops, plants, livestock, fish, etc. (wild & domesticated) (food, fertiliser)
	Wild species diversity inc. microbes (natural medicine)
	Meaningful places (aesthetics, recreation, tourism)
	Socially valued landscapes, waterscapes and wildlife (aesthetics, recreation, tourism)
	Climate regulation (avoidance of climate stress)
	Hazard regulation – vegetation & other habitats (flood protection)
	Purification (clean air, clean water, clean soils)
Marine	Crops, plants, livestock, fish, etc. (wild &

domesticated) (food, fertiliser)
Wild species diversity inc. microbes (natural medicine)
Meaningful places (aesthetics, recreation, tourism)
Socially valued landscapes, waterscapes and wildlife (aesthetics, recreation, tourism)
Climate regulation (avoidance of climate stress)
Hazard regulation – vegetation & other habitats (flood protection)
Purification (clean air, clean water, clean soils)

# G Description of key measures to achieve priorities

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

Over arching priorities for Natura 2000 will be developed as part of IPENs Life+Project. Initial suggestions in table below – this area will require further work.

Type of activity	Description of measure	Target	Potential Financing
		species/habitats/sites	sources*
12. Conservation management measures – maintenance and improvement of habitats' and species' favourable conservation status.  5. Preparation of management plans, strategies and	Measures to increase connectivity between Natura 2000 sites including habitat management and restoration.	All	EU Life+  National public govt.  Private Charitable Trusts
schemes (including scientific studies and investigations needed for planning and implementation based on solid knowledge			
5. Preparation of management plans, strategies and schemes (including scientific studies and investigations needed for planning and implementation based on solid knowledge	Embedding ecosystem approach and climate change adaptation into our work & that of others.	All	EU Life+ National public govt. Funding  Private  Payments for ecosystem services (PES) Biodiversity offsets (outside of protected sites
10. Maintenance of facilities for public access and use of the sites, interpretation, observatories and kiosks etc. Staff (conservation/project officers, wardens/rangers, workers)	Improving communication around wider benefits of Natura 2000 – links to ecosystem benefits in section F3		EU Life+ National govt.  Private

<sup>\*</sup>Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources

# G.1.b Priority Measures for Natura 2000 agricultural (including upland heath) and forest habitats and species

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*
2. Scientific studies/inventories for the identification of sites – surveys, inventories, mapping, condition assessment	Scientific studies, research personnel, workshops and meetings, creation of databases etc.  (E.g. identification of new sites/site extensions for bats)	Vertebrate species: mammals (terrestrial) S1308 Barbastella barbastellus, Barbastelle S1303 Rhinolophus hipposideros, Lesser horseshoe bat S1304 Rhinolophus ferrumequinum, Greater horseshoe bat  Higher Plants S1902 Cypripedium calceolus Lady's Slipper Orchid	EU     LIFE  National public     Government funding
5. 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.  (Grassland management plans, hydrology management plans, grazing plans, species management plans, recreation management plans)	Natural and seminatural grassland formations H6130 H6150 H6210/H6211 H6230 H6410 H6430 H6510 H6520  Higher Plants S1902 Cypripedium calceolus Lady's Slipper Orchid  SPA birds Birds of uplands Birds of woodland and scrub Birds of lowland wet grasslands Birds of lowland heaths and brecks Birds of lowland dry grassland Birds of farmland	EU
7. Consultation – public meetings, liaison with	Including costs incurred for the organisation of meetings and workshops, publication of	Natural and semi- natural grassland formations	EU • LIFE • EAFRD

landowners	consultation outcomes, financial support of stakeholders etc  (To finalise 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)	H6130 H6150 H6210/H6211 H6230 H6410 H6530 H6510 H6520 Temperate heath and scrub H4010 H4020 H4030 H4040 H4060	ERDF  National public     Government funding     Lottery  Private     Charitable trusts     NGO  Voluntary initiatives e.g. Campaign for the Farmed Environment (CFE)
		Sclerophyllous scrub (matorral) H5110 H5130 SPA birds Birds of uplands	
8. Review of management plans, strategies and schemes	Review and updating of management plans and strategies  (e.g. grassland management plans, hydrological management plans, refreshing existing plans, recreational disturbance, hydrological issues)	Natural and seminatural grassland formations H6130 H6150 H6210/H6211 H6230 H6410 H6430 H6510 H6520  Temperate heath and scrub H4010 H4020 H4030 H4040 H4060  Sclerophyllous scrub (matorral) H5110 H5130	EU     Agri-environment     LIFE  National public     Government     funding
11. Staff (conservation/proje ct officers, wardens/rangers, workers)	Ongoing staff costs (site management staff)	Temperate heath and scrub H4010 H4020 H4030 H4040 H4060 Sclerophyllous scrub	EU  National public  Government funding Private  NGO  Tourist tax/visitor pay back

		(matorral) H5110 H5130  Higher Plants S1902 Cypripedium calceolus Lady's Slipper Orchid	<ul> <li>Entry fees</li> <li>CSR/Sponsorship</li> <li>Payments for ecosystem services (PES)</li> <li>Biodiversity offsets (outside of protected sites)</li> <li>Land covenants</li> </ul>
12. Conservation management measures – maintenance and improvement of habitats' favourable conservation status			EU
13. 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.  (e.g. Grip blocking, woodland management, grazing management including stocking rates, dunging and trampling, 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	Invertebrate species: arthropods S1079 Limoniscus violaceus, Violet click beetle S1083 Lucanus cervus, Stag beetle Lower plant species S1390 Marsupella profunda, Western rustwort Higher Plants S1902 Cypripedium calceolus Lady's Slipper Orchid Vertebrate species: mammals (terrestrial)	EU  Agri-environment  CES  LIFE  ERDF  EAFRD  National public  Lottery  Government funding  Govnt grant schemes  Management agreements  Private  LCF  Charitable trusts  NGO

	enrichment, roosting commuting and foraging habitat management for bats; maintenance of confidentiality about locations, management of recreation impacts, hydrology management)	S1308 Barbastella barbastellus, Barbastelle S1303 Rhinolophus hipposideros, Lesser horseshoe bat S1304 Rhinolophus ferrumequinum, Greater horseshoe bat S1323 Myotis bechsteinii, Bechstein's bat	<ul> <li>CSR/Sponsorship</li> <li>Biodiversity offsets (outside of protected sites)</li> <li>PES</li> <li>Visitor tax</li> <li>Voluntary initiatives eg CFE</li> <li>Entry fees</li> </ul> Land covenants
		SPA birds Birds of uplands Birds of woodland and scrub Birds of lowland wet grasslands Birds of lowland heaths and brecks Birds of lowland dry grassland Birds of farmland  Key species for the	
		following habitats:  Natural and seminatural grassland formations H6130 H6150 H6210/H6211 H6230 H6410 H6430 H6510 H6520	
		Forests H9120 H9130 H9160 H9180 H9190 H91A0 H91D0 H91D0 H91J0	
14. Conservation Management measures in relation to invasive alien species (IAS)	Including restoration work, infrastructure, management of specific species, and preparation of management plans.	Natural and semi- natural grassland formations H6210/H6211 Forests H9120	<ul> <li>EU</li> <li>Agri-environment</li> <li>LIFE</li> <li>ERDF</li> <li>EAFRD</li> </ul>
	(e.g. pennywort, rhododendron, <u>Cotoneaster</u> ,	H9130 H9160	National public  Lottery

	self-seeding trees)	H9180 H9190 H91A0 H91D0 H91E0 H91J0  Temperate heath and scrub H4010 H4020 H4030 H4040 H4060  Sclerophyllous scrub (matorral) H5110 H5130  Inland Rock H8110 H8120 H8210 H8220 H8240 H8310	Government funding     Govnt grant schemes     Management agreements  Private     LCF     Charitable trusts     NGO     CSR/Sponsorship     Biodiversity offsets (outside of protected sites)     PES     Visitor tax     Voluntary initiatives eg CFE     Entry fees Land covenants
15. Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions	Agri-environment measures: e.g. wildlife-friendly production methods, habitat restoration on agricultural land, extensive livestock breeding, conservation of meadows, etc.  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.  (e.g. Establish new or renegotiate HLS or other agreement, establish new partnership agreement, instigate management scheme, use HLS to target butterfly species as part of Natural England's Farmland Butterfly Initiative, replanting of new generation trees, address birds of prey persecution in upland areas,	Natural and seminatural grassland formations H6130 H6150 H6210/H6211 H6230 H6410 H6430 H6510 H6520  Forests H9120 H9130 H9160 H9180 H91B0 H91B0 H91B0 H91D0 H91E0 H91J0  Temperate heath and scrub H4010 H4020 H4030 H4040 H4060  Sclerophyllous scrub	EU • Agri-environment

	mosaic habitat management in upland areas for bird species with differing habitat requirements, include options for bat habitat [woodland, margins, connective habitats e.g. hedgerows, wetland], prescriptions to manage recreation impacts, research to identify/develop successful HLS management prescriptions to address egg/chick predation [Defra commissioned project], hydrology management options)	(matorral) H5110 H5130  Inland Rock H8110 H8220 H8240 H8240 H8310  Invertebrate species: arthropods S1065 Euphydryas aurinia, Marsh fritillary butterfly S1079 Limoniscus violaceus, Violet click beetle  Vertebrate species: mammals (terrestrial) S1308 Barbastella barbastellus, Barbastelle S1303 Rhinolophus hipposideros, Lesser horseshoe bat S1304 Rhinolophus ferrumequinum, Greater horseshoe bat S1303 Myotis bechsteinii, Bechstein's bat  Higher Plants S1902 Cypripedium calceolus Lady's Slipper Orchid S1528 Saxifraga hirculus Marsh Saxifrage S1654 Gentianella anglica Early Gentian  SPA birds Birds of uplands Birds of woodland and scrub Birds of lowland wet grasslands Birds of lowland wet grasslands Birds of lowland dry grassland Birds of farmland	
17. Monitoring and surveying	Refers mainly to one-off survey costs related to monitoring and surveying activities, e.g. development of	Invertebrate species: arthropods S1079 Limoniscus violaceus, Violet click	LIFE  National public

	monitoring plans, methods and equipment and training of personnel.  (e.g. national survey programme to clarify species distribution e.g. development of pheromone surveys for Violet click beetle; finer habitat requirements, regional differences, management needs, climate change impacts and declining prey species for bats)	beetle S1083 Lucanus cervus, Stag beetle  Vertebrate species: mammals (terrestrial) S1308 Barbastella barbastellus, Barbastelle S1303 Rhinolophus hipposideros, Lesser horseshoe bat S1304 Rhinolophus ferrumequinum, Greater horseshoe bat S1323 Myotis bechsteinii, Bechstein's bat	Government funding  Private     Charitable Trusts CSR/Sponsorship
19. Site Surveillance	Includes ongoing surveillance, wardening and patrolling activities.  (e.g. investigation of species fluctuations, sources of pollution, hydrological investigation, continuing work on the National Bat Monitoring Programme [NBMP])	Natural and seminatural grassland formations H6130 H6150 H6210/H6211 H6230 H6410 H6430 H6510 H6520  Forests H9120 H9130 H9160 H9180 H9180 H9190 H91H00 H91D0 H91E0 H91J0  Vertebrate species: mammals (terrestrial) S1308 Barbastella barbastelle S1303 Rhinolophus hipposideros, Lesser horseshoe bat S1304 Rhinolophus ferrumequinum, Greater horseshoe bat S1323 Myotis bechsteinii, Bechstein's bat  Higher Plants S1902 Cypripedium calceolus Lady's Slipper Orchid	EU  LIFE (during project only)  ERDF  WFD?  National public  Government funding  Private  CSR (pollution)  PES  AMP?

21. Training and education	Including production of handbooks, seminars, workshops and communication materials.  (E.g. bat conservation awareness raising activity, technical advice on monitoring and control of infectious diseases such as white nose syndrome)	Vertebrate species: mammals (terrestrial) S1308 Barbastella barbastellus, Barbastelle S1303 Rhinolophus hipposideros, Lesser horseshoe bat S1304 Rhinolophus ferrumequinum, Greater horseshoe bat S1323 Myotis bechsteinii, Bechstein's bat	EU  LIFE  ESF?  National public  Government funding  Lottery  Private  Charitable trusts
24. Infrastructure needed for habitat or species restoration	Equipment acquisition and installation  (Measures to enable appropriate grazing e.g. fencing, water supply, housing. Water level management)	Natural and seminatural grassland formations H6130 H6150 H6210/H6211 H6230 H6410 H6430 H6510 H6520  Forests H9120 H9130 H9160 H9180 H91B0 H91B0 H91D0 H91E0 H91J0  Temperate heath and scrub H4010 H4020 H4030 H4040 H4060  Sclerophyllous scrub (matorral) H5110 H5130	EU  LIFE EAFRD ERDF  National public Lottery Government funding Govt grant schemes Management agreements  Private LCF Charitable trusts NGO CSR/Sponsorship Biodiversity offsets (outside of protected sites) PES Visitor tax Voluntary initiatives eg CFE Entry fees  Land covenants
25. Infrastructure for public access, interpretation, observatories and kiosks, etc.	Infrastructure for public use that is conducive to environmental protection and management  (Appropriate public access provision which ensures that any development does not result in the destruction or fragmentation of habitats; and	Natural and semi- natural grassland formations H6130 H6150 H6210/H6211 H6230 H6410 H6430 H6510	EU LIFE EAFRD ERDF ESF?  National public  Lottery Government funding

to avoid/decrease disturbance to sensitive sites/species)	Temperate heath and scrub H4010 H4020 H4030 H4040 H4060  Sclerophyllous scrub (matorral) H5110 H5130	<ul> <li>Govt grant schemes</li> <li>Management agreements</li> <li>Private</li> <li>LCF</li> <li>Charitable trusts</li> <li>NGO</li> <li>CSR/Sponsorship</li> <li>Biodiversity offsets (outside of protected sites)</li> <li>PES</li> <li>Visitor tax</li> <li>Voluntary initiatives e.g. CFE</li> <li>Entry fees</li> <li>Land covenants</li> </ul>
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<sup>\*</sup>Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources

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

Type of activity	Description of measure	Target	Potential Financing
		species/habitats/sites	sources*
12 Conservation management measures – maintenance and improvement of habitats' favourable conservation status  24 Infrastructure needed for habitat or species restoration  Compensatory measures to offset coastal squeeze losses at European sites and the introduction of fisheries measures to secure Conservation Objectives on European Sites	Including restoration work, provision of wildlife passages, management of specific habitats, and preparation of management plans.  (Creation of intertidal habitats associated with European sites in England that are subject to coastal squeeze (principally through coastal managed realignment schemes), together with any more specifically identified measures to replace losses of terrestrial and supratidal habitats.  Delivered through the Environment Agency's Regional Habitat Creation Programme)  Introduction of management systems (eg inshore low cost Vessel Monitoring Systems) to monitor and enforce the	Marine, coastal and halophytic habitats H1130 H1140 H1150 H1160 H1310 H1320 H1330 H1420  Coastal SACs and SPAs (17 in total).  SPA birds Birds of coastal habitats Birds of estuarine habitats	current estimated costs to 2027 = £137 million (to be refined as site specific factors such as rate of habitat loss become more clear). EU  LIFE EMFF ERDF  National Public Government funding Lottery Government grant schemes  Private Charitable trusts Marine Stewardship Fund Visitor tax NGO

2. Scientific studies/inventories for the identification of sites – surveys, inventories, mapping, condition assessment	fishing activities within and around Natura 2000 sites to ensure conservation objectives are met  Scientific studies, research personnel, workshops and meetings, creation of databases etc.  (E.g. identification of additional marine protected areas)	Vertebrate species: mammals (marine) S1364 Halichoerus grypus, grey seal S1365 Phoca vitulina, common seal S1349 Tursiops truncates, Bottlenose dolphin S1351 Phocoena phocoena, harbour porpoise  Higher Plants S1441 Rumex rupestris Shore Dock	EU  LIFE  EMFF  Horizon2020  National public  Government funding  Private Charitable trusts
5. 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.  (Appropriate fisheries management measures to be put in place by end 2016 to address outcomes of assessment under Article 6 of the Habitats Directive, management planning for impacts on H1110 and H1170 including research to understand impacts to inform condition assessment, influencing Shoreline Management Plans to mitigate coastal squeeze including managed realignment, plans for management of recreation impacts, alternative flood management to enable natural functioning of shingle systems)	Marine, coastal and halophytic habitats H1110 H1130 H1140 H1150 H1160 H1170 H1210 H1220  Rocky habitats and caves H8330  SPA birds Birds of coastal habitats Birds of estuarine habitats Birds of open sea and offshore rocks	EU     LIFE     Horizon2020     EMFF  National public     Government funding Private sources
7. 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).	Marine, coastal and halophytic habitats H1110 H1130 H1140 H1150 H1160 H1170 H1210 H1220 H1230	EU     LIFE     EMFF  National public     Government funding     Lottery  Private     Charitable trusts

	(Consultation to overcome public and political hostility to controversial coastal	H1310 H1320 H1330	
	management, bringing together and applying existing examples of good practice. Also relevant to marine habitats and species, e.g. working with local IFCA and MMO to monitor effectiveness of voluntary agreement in place to prevent shooting of seals in the Isles of Scilly).	H1420  Coastal sand dunes and continental dunes H2110 H2120 H2130 H2150 H2160 H2170 H2190	
	Scilly).	SPA birds Birds of coastal habitats Birds of estuarine habitats Birds of open sea and offshore rocks  Vertebrate species:	
		mammals (marine) S1364 Halichoerus grypus, grey seal S1365 Phoca vitulina, common seal	
12. 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  (E.g. removal of plantation woodland preventing natural landward rolling of dune systems, investment in livestock grazing, scrub/woodland clearance, experimental rabbit population enhancement, sensitive dune excavations, active remobilisation of some dunes)	Coastal sand dunes and continental dunes H2110 H2120 H2130 H2150 H2160 H2170 H2190	EU     LIFE     EMFF     ERDF  National Public     Government funding     Lottery     Government grant schemes  Private     Charitable trusts     Marine Stewardship Fund     Visitor tax
13. Conservation management measures – maintenance and improvement of species'	Including restoration work, provision of wildlife passages, management of specific species (flora and fauna) and plans.	Invertebrate species: arthropods S4035 Gortyna borelii lunata, Fisher's estuarine moth	NGO EU LIFE EMFF ERDF
favourable conservation status	(E.g. replanting of food sources for coastal species affected by coastal squeeze, management of recreational activities including coastal access and fishing to avoid	Higher Plants S1441 Rumex rupestris Shore Dock  SPA birds Birds of coastal habitats Birds of estuarine habitats	National Public     Government funding     Lottery     Government grant schemes  Private

15.	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) Includes:	Higher Plants	Charitable trusts     Marine     Stewardship     Fund     Visitor tax NGO  EU
Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.	Agri-environmental measures, e.g. wildlife- friendly production methods, habitat restoration on agricultural land, extensive livestock breeding, conservation of meadows, etc.  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	S1441 Rumex rupestris Shore Dock	<ul> <li>EAFRD</li> <li>EMFF</li> <li>National public</li> <li>Government funding</li> <li>Private</li> </ul>
	vegetation, etc.  Aqua-environment measures, e.g. habitat maintenance in aquaculture zones etc. (relates to aquaculture rather than fishing). (Agri-environment agreements – re- introduction of coastal grazing may indirectly help habitat requirements)		
17. Monitoring and surveying	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.  (There remains a significant proportion of features unassessed or lacking baselines across their distribution in marine Natura 2000 sites. Further monitoring is needed to fill	Marine, coastal and halophytic habitats H1110 H1130 H1140 H1150 H1160 H1170 H1210 H1220 H1230 H1330 H1330 H1320 H1330 H1420	<ul> <li>EU</li> <li>LIFE</li> <li>EMFF</li> <li>National public</li> <li>Government funding</li> <li>Private</li> <li>Charitable Trusts</li> <li>Marine Stewardship Fund</li> </ul>
	in these gaps. development of understanding of	Coastal sand dunes and continental dunes	

	atmospheric N deposition, water tables, and soil chemistry impacts on dune systems)	H2110 H2120 H2130 H2150 H2160 H2170 H2190  Rocky habitats and caves H8330  Vertebrate species: mammals (marine) S1364 Halichoerus grypus, grey seal S1365 Phoca vitulina, common seal S1349 Tursiops truncates, Bottlenose dolphin S1351 Phocoena phocoena, harbour porpoise	
19. 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.  (Monitoring for S4035 is already in progress and needs to continue, Natural England is also working to influence the scope of the Regional Coastal Monitoring Programmes [RCMPs], jointly managed by EA and local authorities. Cliff surveillance.)	Coastal sand dunes and continental dunes H2110 H2120 H2130 H2150 H2170 H2190  Marine, coastal and halophytic habitats H1110 H1170 H1230  Invertebrate species: arthropods S4035 Gortyna borelii lunata, Fisher's estuarine moth	EU  LIFE (during project only)  EMFF  National public  Government funding  Private  Marine Stewardship fund  Charitable trusts
21. Training and education	Including production of handbooks, seminars, workshops and communication materials  (E.g. education to address public and political hostility to controversial coastal management, bringing together and applying existing examples of good practice)	Marine, coastal and halophytic habitats H1110 H1130 H1140 H1150 H1160 H1170 H1210 H1220 H1230 H1310	EU  National public  Private

		H1320 H1330 H1420 Coastal sand dunes and continental dunes H2110 H2120 H2130 H2150 H2160 H2170 H2190	
24. 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, monitoring materials, boats, diving equipment, cameras, etc)  (E.g. infrastructure for flood management to allow shingle systems to operate naturally)	Marine, coastal and halophytic habitats H1210 H1220	EU National public Private

<sup>\*</sup>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*
5. Preparation of management	Elaboration and/or update of management and action plans,	Rivers and Streams	EU
plans, strategies	land use plans etc.	1.000	National public
and schemes	·	Bogs	•
(including	(Investigations; Diffuse Water	H7110	Private
scientific studies	Pollution Plan; River Restoration	H7120	
and investigations	Plans; Fisheries Enhancement	H7130	
needed for	Project; NNR management plan;	H7140	
planning and	Water Level Management Plan;	H7150	
implementation	Flood Risk Management		
based on solid	maintenance programme; Lake	Fen, Marsh & Swamp	
knowledge)	Restoration Plans; Fisheries	H7210	
	Management Plans, Great	H7220	
	Crested Newt Land Use	H7230	

	Package; dredging schemes, Catchment Abstraction Management Schemes [CAMS], recreation management plans)	Standing Open Water & Canals H3110 H3130 H3140 H3150 H3160 H3170  Vertebrate species: amphibians & reptiles S1166 Triturus cristatus, Great crested newt  Freshwater Fish species: S1095 Petromyzon marinus Sea Lamprey; S1099 Lampetra fluviatilis River Lamprey; S1096 Lampetra planeri Brook Lamprey; S1163 Cottus gobio Bullhead; S1106 Salmo salar Atlantic Salmon; S1102 Alosa alosa Allis Shad  Higher Plants S1831 Luronium natans Floating Water-Plantain S1903 Liparis loeselii Fen	
		S1614 Apium repens Creeping Marshwort S1421 Trichomanes speciosum Killarney Fern  SPA birds Birds of lowland freshwaters and their margins	
7. 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).  (E.g. working with enforcement/regulatory bodies to address poaching issues, putting in place Catchment Sensitive Farming to address water quality issues, working	Invertebrate species: molluscs S1029 Margaritifera margaritifera, Freshwater pearl mussel  Vertebrate species: amphibians & reptiles S1166 Triturus cristatus, Great crested newt  Vertebrate species: mammals (terrestrial) S1355 Lutra lutra, otter	EU National public Private

			I
12.Conservation management measures – maintenance and improvement of habitats' favourable conservation status	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 for great crested newts)  Including restoration work, provision of wildlife passages, management of specific habitats, and preparation of management plans.  (River restoration works specifically physical restoration; direct management works; vegetation management; Flood risk management capital works; Lake Restoration Projects	Rivers & Streams H3260  Bogs H7110 H7120 H7130 H7140 H7150  Fen, Marsh & Swamp	EU National public Private
	Lake Restoration Projects including nutrient reduction [internal and external], sediment removal, manipulation of fish populations etc; dredging works; protecting/restoring hydrological integrity through appropriate management of flow modifications [abstractions, impoundments, diversions])	H7210 H7220 H7230 H7240 Standing Open Water & Canals H3110 H3130 H3140 H3150 H3160 H3170	
13. 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.  (E.g. scrub management, water level management, grazing management, streamside and river management of recreational activities to avoid disturbance of sensitive species, river restoration; maintain confidentiality of locations, management of recreation impacts)	Invertebrate species: molluscs S1013 Vertigo geyeri, Geyer's whorl snail S1014 Vertigo angustior, Narrow-mouthed whorl snail S1015 Vertigo genesii, Round-mouthed whorl snail S1016 Vertigo moulinsiana, Desmoulin's whorl snail S1029 Margaritifera margaritifera, Freshwater pearl mussel S4056 Anisus vorticulus, Little ramshorn whirlpool snail Invertebrate species: arthropods	EU Agri- environment? National public Private
		S1044 Coenagrion mercuriale, Southern damselfly S1092 Austropotamobius pallipes, White-clawed	

		crayfish	
		SPA birds	
		Birds of lowland	
		freshwaters and their	
		margins	
		Freshwater Fish Species	
		S1095 Petromyzon	
		marinus	
		Sea Lamprey	
		S1099 <i>Lampetra fluviatilis</i> River Lamprey	
		S1096 Lampetra planeri	
		Brook Lamprey	
		S1163 Cottus gobio	
		Bullhead	
		S1106 Salmo salar Atlantic Salmon	
		S1102 <i>Alosa alosa</i> Allis	
		Shad	
		Vertebrate species:	
		mammals (terrestrial)	
		S1355 Lutra lutra, otter	
		Higher Plants	
		S1831 Luronium natans	
		Floating Water-Plantain	
		S1903 <i>Liparis loeselii</i> Fen Orchid	
		S1614 Apium repens	
		Creeping Marshwort	
		S1421 Trichomanes	
		speciosum Killarney Fern	
14.Conservation	Including restoration work,	Rivers & streams	EU
management	infrastructure, management of	H3260	
measures in	specific species, and		National public
relation to	preparation of management	Fen, Marsh & Swamp	D.:
invasive alien species (IAS)	plans.	H7210 H7220	Private
species (i/to)	(Invasive species control plans;	H7230	
	Implement invasive species bio-	H7240	
	security measures. E.g.		
	pennywort, signal crayfish, Crassula helmsii.)	Standing Open Water & Canals	
	Grassula HellHisli.)	H3110	
		H3130	
		H3140	
		H3150	
		H3160 H3170	
		Invertebrate species:	
		arthropods S1092 Austropotamobius	
		pallipes, White-clawed	
		crayfish	
	1	I .	1

		Higher Plants S1831 Luronium natans Floating Water-Plantain S1614 Apium repens Creeping Marshwort	
15. Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.	Includes:  Agri-environmental measures, e.g. wildlife- friendly production methods, habitat restoration on agricultural land, extensive livestock breeding, conservation of meadows, etc  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. Aqua-environmental measures, e.g. habitat maintenance in aquaculture zones etc. (relates to aquaculture rather than fishing).  (CES/WES; ESA; HLS; Catchment Sensitive Farming agreements: Partnership agreements; Water Company Asset Management Plans E.g. grazing, hydrology including management of diversions abstractions and impoundments, scrub management, diffuse water pollution management, improvements to great crested newt HLS options, appropriate HLS options for wetland bird species)	Rivers & streams H3260  Bogs H7110 H7120 H7130 H7140 H7150  Fen, Marsh & Swamp H7210 H7220 H7230 H7240  Standing Open Water & Canals H3110 H3130 H3140 H3150 H3160 H3170  Invertebrate species: molluscs S1013 Vertigo geyeri, Geyer's whorl snail S1014 Vertigo angustior, Narrow-mouthed whorl snail S1015 Vertigo genesii, Round-mouthed whorl snail S1016 Vertigo moulinsiana, Desmoulin's whorl snail S4056 Anisus vorticulus, Little ramshorn whirlpool snail Vertebrate species: amphibians & reptiles S1166 Triturus cristatus, Great crested newt  Vertebrate species: mammals (terrestrial) S1355 Lutra lutra, otter  Freshwater Fish Species S1095 Petromyzon marinus	EU National public Private
		Sea Lamprey	

		S1099 Lampetra fluviatilis River Lamprey S1096 Lampetra planeri Brook Lamprey S1163 Cottus gobio Bullhead S1106 Salmo salar Atlantic Salmon S1102 Alosa alosa Allis Shad  Higher Plants S1614 Apium repens Creeping Marshwort  SPA birds Birds of lowland freshwaters and their margins	
16.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.  (Tenancy negotiations / buy-out; compensation for land loss, grazing loss, movement of infrastructure, sustainable flood risk management, water quality buffering)	Rivers & streams H3260  Bogs 7110 7120 7130 7140 7150  Rivers & streams H3260	EU National public Private
17. Monitoring and surveying	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.  (e.g. national survey programme to clarify species distribution and/or abundance, maintaining surveillance of otter health)	Invertebrate species: molluscs S1013 Vertigo geyeri, Geyer's whorl snail S1014 Vertigo angustior, Narrow-mouthed whorl snail S1015 Vertigo genesii, Round-mouthed whorl snail S1016 Vertigo moulinsiana, Desmoulin's whorl snail	EU National public Private
19. 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.  (E.g. implementation of assessment of conservation	Vertebrate species: amphibians & reptiles S1166 Triturus cristatus, Great crested newt  Vertebrate species: mammals (terrestrial) S1355 Lutra lutra, otter	EU National public Private

	status of great crested newts both within and outside of SACs, monitoring recolonisation of otter)		
21. Training and education	Including production of handbooks, seminars, workshops and communication materials.  (E.g. preparation of a British Standard for Biodiversity 2020 to address consistency issues in mitigation projects, development of a Great Crested Newts Land Use Information Pack, development of a Great Crested Newts Agri-environment Information Pack, advice on preventing otter access to sensitive still water fisheries and fish farms)	Vertebrate species: amphibians & reptiles S1166 Triturus cristatus, Great crested newt  Vertebrate species: mammals (terrestrial) S1355 Lutra lutra, otter	EU National public Private
23.Land purchase, including compensation for development rights	Land purchase to achieve environmental protection and management schemes.  (Land acquisition to protect hydrological integrity of sites; land acquisition to protect river movement)	Rivers & streams H3260  Bogs H7110 H7120 H7130 H7140 H7150  Fen, Marsh & Swamp H7210 H7220 H7230 H7240	EU National public Private

<sup>\*</sup>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	Potential Financing
		species/habitats/sites	sources*
12. Conservation	Restore hydrology of	Lowland and upland	
management	raised bogs, mires	wetland sites (Habitats	EU
measures -	and fens.	H7120, H7130, H7140,	
maintenance and		H7150, H7210, H7230)	National public
improvement of	Reinstating semi-natural		
habitats'	hydrology would		Private
favourable	encourage peat		
conservation	formation to sequester		Potential to develop
status	carbon (mitigation) and		carbon offset/credits
	store greater volumes of		system to part fund this
15.Implementation	water potentially		wetland restoration. E.g

of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.  16. Provision of services: compensation for rights foregone and loss of income and developing acceptability 'liaison' with neighbours	reducing flood risk and increasing available water during dry periods (adaptation).		There is a project underway that has just started to look at a peatland carbon code which should seek to secure private sector support for peatland restoration.  Interest from water supply sector in upland restoration to improve water quality has allowed private sector funds to be combined with public funds
12. Conservation management measures – maintenance and improvement of habitats' favourable conservation status	Restoration of lowland fen peat habitats in previously drained areas  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).	H7120, H7230	As above
12. Conservation management measures – maintenance and improvement of habitats' favourable conservation status  15. Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.  16. Provision of services: compensation for rights foregone	Floodplain restoration and reconnection  Creating more natural conditions within the floodplains of N2K rivers would allow river channels to adjust to changing flow regimes (adaptation) and create storage for greater volumes of water potentially reducing flood risk and increasing available water during dry periods (adaptation).	River habitats (H3260)	EU Flood risk management budgets combined with agri-environment National public Private

			<u> </u>
and loss of income and developing acceptability 'liaison' with neighbours			
12. Conservation management measures – maintenance and improvement of habitats' favourable conservation status  15. Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.  16. Provision of services: compensation for rights foregone and loss of	Managed realignment of coastal flood defences  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)	Sedimentary coastal habitats, in particular mudflats and saltmarsh (H1140, H1310, H1320, H1330) but also dune and shingle habitats.	National public Coastal flood risk management budgets Private
income and developing acceptability 'liaison' with neighbours			
12. Conservation management measures – maintenance and improvement of habitats' favourable conservation status	Woodland management  Reinstating traditional management has the potential to restore favourable condition and sequester carbon (mitigation)	Forests H9120 H9130 H9160 H9180 H9190 H91A0 H91D0 H91E0 H91J0	EU  National public Coastal flood risk management budgets  Private
15. Implementation of management schemes and agreements with owners and managers of land or water to follow particular prescriptions.		SE LIEE National public I	

<sup>\*</sup>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	Potential Financing
		species/habitats/sites	sources*
10. Maintenance	Including costs relating to	All	EU
of facilities for	guides, maps, related		
public access	personnel		National public
and use of the	(Maintaining infractive at wa		Driverte
sites, interpretation,	(Maintaining infrastructure to enable visitor access to		Private
observatories	and enjoyment of sites		
and kiosks etc.	including access routes,		
	car parking facilities		
	, 0		
	Maintaining site-based		
	interpretation and signage		
	that enables visitors to		
	understand site and the		
	opportunities to		
	experience these)		
21. Training	Including production of	All	EU
and education	handbooks, seminars,		National public
	workshops and communication materials		National public
	communication materials		Private
	(Provision of		vate
	apprenticeship		
	programmes that build the		
	pool of skilled workforce		
	able to deliver the aims of		
	Natura 2000 sites		
	Provision of training		
	programmes to build skills		
	amongst volunteers to		
	contribute to Natura 2000		
	management and		
ψΓ I.	objectives)	TALL D'	

<sup>\*</sup>Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources

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

#### To be informed in future by IPENs Project – some initial suggestions below.

Type of activity	Description of	Target	Potential Financing
	measure	species/habitats/sites	sources*
12. Conservation management measures – maintenance and	Measures to include research and trialling of methods for improving connectivity between Natura 2000 sites including habitat	All	EU Life+  National public  Private
improvement of habitats' and species' favourable conservation status.	management and restoration.		<ul> <li>Payments for ecosystem services (PES)</li> <li>Biodiversity offsets (outside of protected sites</li> </ul>
5. Preparation of management plans, strategies and schemes (including scientific studies and investigations needed for planning and implementation based on solid knowledge			

<sup>\*</sup>Funding sources: EAFRD; ERDF, EFF; ESF, LIFE, National public, Private sources

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

		Conservation status (code from HD Article 17 report or BD Article 12 report)	threats (codes	Priority measure (from section G of PAF, by coding)
Marine, Haloph	, Coastal & ytic			5, 7, 12, 17, 19, 21, 24
H1110	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	
H1130	Estuaries	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1130-audit-Final.pdf	See link	

H1140	Mudflats and sandflats not covered by seawater at low tide	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1140-audit-Final.pdf	See link	
H1150	Coastal lagoons*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1150-audit-Final.pdf	See link	
H1160	Large shallow inlets and bays	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1160-audit-Final.pdf	See link	
H1170	Reefs	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1170-audit-Final.pdf	See link	
H1210	Annual vegetation of drift lines	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1210-audit-Final.pdf	See link	
H1220	Perennial vegetation of stony banks	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1220-audit-Final.pdf	See link	
H1230	Vegetated sea cliffs of the Atlantic and Baltic coasts	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1230-audit-Final.pdf	See link	
H1310	Salicornia and other annuals colonising mud and sand	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1310-audit-Final.pdf	See link	
H1320	Spartina swards (Spartinion maritimae)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1320-audit-Final.pdf	See link	
H1330	Atlantic salt meadows (Glauco- Puccinellietalia maritimae)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1330-audit-Final.pdf	See link	
H1340	Inland salt meadows*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1340-audit-Final.pdf	See link	
H1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H1420-audit-Final.pdf	See link	
	l sand dunes and ental dunes			7, 12, 17, 19, 21
H2110	Embryonic shifting dunes	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H2110-audit-Final.pdf	See link	
H2120	Shifting dunes along the shoreline with <i>Ammophila</i> <i>arenaria</i> ("white dunes")	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H2120-audit-Final.pdf	See link	
H2130	Fixed dunes with herbaceous vegetation ("grey	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H2130-audit-Final.pdf	See link	

	dunes")*			
H2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H2150-audit-Final.pdf	See link	
H2160	Dunes with Hippophae rhamnoides	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H2160-audit-Final.pdf	See link	
H2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H2170-audit-Final.pdf	See link	
H2190	Humid dune slacks	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H2190-audit-Final.pdf	See link	
H2330	Inland dunes with open Corynephorus and Agrostis grasslands	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H2330-audit-Final.pdf	See link	
Freshw	rater habitats			5, 12, 14, 15,16, 23
H3110	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H3110-audit-Final.pdf	See link	
H3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H3130-audit-Final.pdf	See link	
H3140	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	
H3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H3150-audit-Final.pdf	See link	
H3160	Natural dystrophic lakes and ponds	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H3160-audit-Final.pdf	See link	
H3170	Mediterranean temporary ponds	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H3170-audit-Final.pdf	See link	
H3260	Water courses of plain to montane levels with the	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H3260-audit-Final.pdf	See link	

	Ranunculion fluitantis and Callitricho- Batrachion vegetation			
Tempe	rate heath and			7, 8, 11, 12, 14, 15, 24, 25
H4010	Northern Atlantic wet heaths with Erica tetralix	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H4010-audit-Final.pdf	See link	
H4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H4020-audit-Final.pdf	See link	
H4030	European dry heaths	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H4030-audit-Final.pdf	See link	
H4040	Dry Atlantic coastal heaths with <i>Erica</i> vegans*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H4040-audit-Final.pdf	See link	
H4060	Alpine and Boreal heaths	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H4060-audit-Final.pdf	See link	
Sclerop (matorr	hyllous scrub al)			7, 8, 11, 12, 14, 15, 24, 25
H5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H5110-audit-Final.pdf	See link	
H5130	Juniperus communis formations on heaths or calcareous grasslands	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H5130-audit-Final.pdf	See link	
Natural and semi-natural grassland formations				5, 7, 8, 12, 13, 14, 15, 19, 24, 25
H6130	Calaminarian grasslands of the Violetalia calaminariae	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H6130-audit-Final.pdf	See link	
H6150	Siliceous alpine and boreal grasslands	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H6150-audit-Final.pdf	See link	
H6210	Semi-natural dry grasslands and	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H6210-audit-Final.pdf	See link	

		I		
	scrubland faces on calcareous substrates (Festuco- Brometalia)			
H6211	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco- Brometalia) (important orchid sites)*	See link for 6210. 6211 and 6210 were combined for the purposes of Article 17 reporting.		
H6230	Species-rich Nardus 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	
H6410	Molinia meadows on calcareous, peaty or clayey-silt- laden soils (Molinion caeruleae)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H6410-audit-Final.pdf	See link	
H6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H6430-audit-Final.pdf	See link	
H6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H6510-audit-Final.pdf	See link	
H6520	Mountain hay meadows	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H6520-audit-Final.pdf	See link	
Raised and fen	bogs and mires s			5, 12, 14, 15, 16, 23
H7110	Active raised bogs*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H7110-audit-Final.pdf	See link	
H7120	Degraded raised bogs still capable of natural regeneration	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H7120-audit-Final.pdf	See link	
H7130	Blanket bogs*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H7130-audit-Final.pdf	See link	

H7140	Transition mires and quaking bogs	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H7140-audit-Final.pdf	See link	
H7150	Depressions on peat substrates of the Rhynchosporion	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H7150-audit-Final.pdf	See link	
H7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H7210-audit-Final.pdf	See link	
H7220	Petrifying springs with tufa formation (Cratoneurion)*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H7220-audit-Final.pdf	See link	
H7230	Alkaline fens	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H7230-audit-Final.pdf	See link	
H7240	Alpine pioneer formations of the Caricion bicolorisatrofuscae*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H7240-audit-Final.pdf	See link	
Rocky I	habitats and caves			14, 15
H8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H8110-audit-Final.pdf	See link	
H8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H8120-audit-Final.pdf	See link	
H8210	Calcareous rocky slopes with chasmophytic vegetation	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H8210-audit-Final.pdf	See link	
H8220	Siliceous rocky slopes with chasmophytic vegetation	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H8220-audit-Final.pdf	See link	
H8240	Limestone pavements*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H8240-audit-Final.pdf	See link	
H8310	Caves not open to the public	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H8310-audit-Final.pdf	See link	
H8330	Submerged or partially submerged	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H8330-audit-Final.pdf	See link	

	sea caves			
Forests				12, 13, 14, 15, 19, 24
H9120	Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer ( <i>Quercion robori-</i> petraeae or <i>Ilici-</i> Fagenion)	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H9120-audit-Final.pdf	See link	
H9130	Asperulo-Fagetum beech forests	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H9130-audit-Final.pdf	See link	
H9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H9160-audit-Final.pdf	See link	
H9180	Tilio-Acerion forests of slopes, screes and ravines*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H9180-audit-Final.pdf	See link	
H9190	Old acidophilous oak woods with Quercus robur on sandy plains	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H9190-audit-Final.pdf	See link	
H91A0	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	
H91D0	Bog woodland*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H91D0-audit-Final.pdf	See link	
H91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H91E0-audit-Final.pdf	See link	
H91J0	Taxus baccata woods of the British Isles*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- H91J0-audit-Final.pdf	See link	
Invertebrate species: molluscs				7, 13, 15, 17
S1013	Vertigo geyeri	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1013-audit-Final.pdf	See link	
S1014	Vertigo angustior	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1014-audit-Final.pdf	See link	
S1015	Vertigo genesii	http://jncc.defra.gov.uk/pdf/Article17/FCS2007-	See link	

		S1015-audit-Final.pdf		
S1016	Vertigo moulinsiana	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1016-audit-Final.pdf	See link	
S4056	Anisus vorticulus	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S4056-audit-Final.pdf	See link	
S1029	Margaritifera margaritifera	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1029-audit-Final.pdf	See link	
Invertel arthrop	brate species: ods			13, 14, 15, 17, 19
S1044	Coenagrion mercuriale	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1044-audit-Final.pdf	See link	
1065	Euphydryas (Eurodryas, Hypodryas) aurinia	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1065-audit-Final.pdf	See link	
1079	Limoniscus violaceus	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1079-audit-Final.pdf	See link	
S4035	Gortyna borelii lunata	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S4035-audit-Final.pdf	See link	
S1083	Lucanus cervus	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1083-audit-Final.pdf	See link	
S1092	Austropotamobius pallipes	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1092-audit-Final.pdf	See link	
Vertebr	ate species: fish			5, 13, 15
S1095	Petromyzon marinus	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1095-audit-Final.pdf	See link	
S1096	Lampetra planeri	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1096-audit-Final.pdf	See link	
S1099	Lampetra fluviatilis	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1099-audit-Final.pdf	See link	
S1102	Alosa alosa	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1102-audit-Final.pdf	See link	
S1103	Alosa fallax	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1103-audit-Final.pdf	See link	
S1106	Salmo salar	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1106-audit-Final.pdf	See link	
S1149	Cobitis taenia	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1149-audit-Final.pdf	See link	
S1163	Cottus gobio	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1163-audit-Final.pdf	See link	
			_	
	rate species: ians & reptiles			5, 7, 15, 19, 21

		S1166-audit-Final.pdf		
	rate species: als (terrestrial)			7, 13, 15, 17 19, 21
S1303	Rhinolophus hipposideros	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1303-audit-Final.pdf	See link	
S1304	Rhinolophus ferrumequinum	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1304-audit-Final.pdf	See link	
S1308	Barbastella barbastellus	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1308-audit-Final.pdf	See link	
S1323	Myotis bechsteinii	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1323-audit-Final.pdf	See link	
S1355	Lutra lutra	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1355-audit-Final.pdf	See link	
	rate species: als (marine)			2, 7, 17
S1349	Tursiops truncatus	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1349-audit-Final.pdf	See link	
S1351	Phocoena phocoena	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1351-audit-Final.pdf	See link	
S1364	Halichoerus grypus	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1364-audit-Final.pdf	See link	
S1365	Phoca vitulina	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1365-audit-Final.pdf	See link	
Lower	plant species			13
S1390	Marsupella profunda Lindb.*	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1390-audit-Final.pdf	See link	
S1393	Drepanocladus (Hamatocaulis) vernicosus (Mitt.) Warnst.	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1393-audit-Final.pdf	See link	
S1395	Petalophyllum ralfsii (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,
S1421	Trichomanes speciosum Willd.	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1421-audit-Final.pdf	See link	
S1441	Rumex rupestris Le Gall	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1441-audit-Final.pdf	See link	
S1528	Saxifraga hirculus L.	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1528-audit-Final.pdf	See link	
S1614	Apium repens (Jacq.) Lag.	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1614-audit-Final.pdf	See link	

S1654	Gentianella anglica (Pugsley) E.F. Warburg	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1654-audit-Final.pdf	See link	
S1831	Luronium natans (L.) Raf.	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1831-audit-Final.pdf	See link	
S1902	Cypripedium calceolus L.	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1902-audit-Final.pdf	See link	
S1903	Liparis loeselii (L.) Rich.	http://jncc.defra.gov.uk/pdf/Article17/FCS2007- S1903-audit-Final.pdf	See link	
SPA qu	alifying features			
Birds of	uplands			5, 7, 13, 15
Birds of	woodland and scrub			5, 13, 15
Birds of lowland wet grasslands				5, 13, 15
Birds of lowland heaths and brecks				5, 13, 15
Birds of grasslar	lowland dry nd			5, 13, 15
Birds of	farmland			5, 13, 15
Birds of coastal habitats				5, 7, 13
Birds of estuarine habitats				5, 7, 13
Birds of offshore	open sea and rocks			5, 7
	lowland freshwaters ir margins			5, 13, 15

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

The Improvement Programme for England's Natura 2000 Sites (IPENS) is a 2 year programme with funding from EU Life+. This is a joint programme between Natural England and the Environment Agency. This programme will develop a strategic approach to achieving favourable conservation status on all Natura 2000 sites by reviewing, for each site:

The risks and issues that are impacting on and/or threatening the condition of the site; which mechanisms (i.e. actions and measures) could be used to address them; how much it will cost and where the money could come from; working with key stakeholders and agreeing how they can best contribute; It will also identify where no suitable mechanisms currently exist, which in turn will initiate work to devise new solutions

This will be the first time that this information will have been drawn together for all of England's Natura 2000 sites.

The outputs from the IPENS project will be used to inform future iterations of the PAF.