



Wildlife and  
Countryside



## Joint Links Fitness Check Evidence Submission 25/03/2015

### Annex IV: Efficiency Case Studies

#### Case Study Y.1 (i): Natura 2000 in Scotland

The protection of all 300 Natura 2000 sites throughout Scotland was estimated to have an overall benefit to cost ratio of around 7:1 over a 25-year period. This means that overall national welfare benefits are seven times greater than the national costs and represent good value for money. However, about 99 per cent of these benefits (£210m per year) relate to non-use values. Around 51 per cent accrues as non-use value to the Scottish general public and 48 per cent accrues as non-use value to visitors to Scotland. Around £1.5m (1 per cent) of the benefits relate to use values (e.g. walking and angling etc). Consequently, most of the benefits seem to arise from non-use values.

#### Case study Y.1 (ii): Marine Protected Areas (MPAs)

MPAs have a vital role in restoring and safeguarding crucial ecosystem services, including: spawning and nursery grounds for commercial fish stocks; climate regulation; nutrient recycling; and environmental resilience. It has also been estimated that the proposed Scottish component alone of the network could provide economic benefits worth £10bn<sup>1</sup>. The Natural Capital Committee's third *State of Nature* report published January 2015 estimated that the restoration of fish stocks to their maximum sustainable yield could generate £1.4bn in additional revenues to the UK economy<sup>2</sup>. This is essential given landings of demersal fish catches per unit of fishing effort in UK seas have declined by as much as 94% since 1884<sup>3</sup>. Likewise biodiversity recovery is much needed given the fact that across Europe whether looking at marine species or habitats less than 20% of all biodiversity features are considered as being in Good Environmental Status<sup>4</sup>.

#### Case Study Y.1 (iii): Benefits from MPAs in Northern Ireland

The Northern Ireland Marine Task Force is a coalition of ten environmental organisations campaigning for healthy and productive seas in Northern Ireland. In 2014, the Task Force commissioned a report on 'The ecological coherence and economic & social benefits of the Northern Ireland MPAs Network'.

The study examined the social benefits of MPAs (Natura 2000 sites and other protected sites) in Northern Ireland and acknowledges the diversity of ecosystem services that may be conserved and

<sup>1</sup> [http://www.scotlink.org/files/policy/ParliamentaryBriefings/LINK\\_Briefing4\\_screen\\_version.pdf](http://www.scotlink.org/files/policy/ParliamentaryBriefings/LINK_Briefing4_screen_version.pdf)

<sup>2</sup> <https://nebula.wsimg.com/17ce16211194bfe53215bb754444686d?AccessKeyId=68F83A8E994328D64D3D&disposition=O&alloworigin=1>

<sup>3</sup> Thurston, R.H., Brockington, S., Roberts, C.M. (2010). 'The effects of 118 years of industrial fishing on UK bottom trawl fisheries'. Nature Communications 1:15

<sup>4</sup> European Environment Agency. 2014. 'Marine Messages: Our seas, our future — moving towards a new understanding'.

also promoted by the designation and management of MPAs. A range of ecosystem services were examined and a net value of £52.8 – £54.5m may be realised as a result of maintaining or restoring MPAs in Northern Ireland. These figures are indicative of the scale of the value of Northern Ireland MPAs network to society. The ecosystem services accounted include between other nutrient cycling, gas and climate regulation, food provision, leisure and recreation.

#### **Case Study Y.1 (iv): Rathlin Seabird Value Report**

Located 6 miles off the north coast of Northern Ireland lies Rathlin Island, a sacred wildlife haven with undeniable natural beauty and a population of 90 inhabitants. Due to its critically low population, the islands economic infrastructure has a huge reliance on fiscal injections from regional, national and international visitors as well as Government Grants through financial relocation.

Rathlin Island is designated as both a Special Protection Area (SPA) and a Special Area of Conservation (SAC). A preliminary estimation of the economic impact of the Rathlin Island Reserve from the RSPB Economics Department gave a FTE job creation number of 7.89 for the financial year of 2008/2009<sup>5</sup>.

#### **Case study Y.1 (v): RSPB Belfast Reserve – Window on Wildlife (WOW)**

Belfast Harbour is Northern Ireland's principal maritime gateway and logistics hub, serving the Northern Ireland economy and increasingly that of the Republic of Ireland. Around 70% of Northern Ireland's and 20% of the entire island's seaborne trade is handled at the Harbour each year.

*The Port in Numbers:*

- Turnover in 2013 exceeding £50m for the first time in the Port's history;
- Operating Profit of £26.2m in 2013;
- Total tonnes handled of 23 million in 2014;
- 1.4 million passengers in 2014;
- 476,000 Freight Vehicles through the Port's Ferry Terminals in 2014;
- A record 112,000 cruise passengers in 2014<sup>6</sup>.

Within the heart of Belfast Harbour, sits Belfast's WOW, an RSPB reserve which is located within the Belfast Lough SPA. Home to birds and other wildlife from all over the world, more than 100 species have been recorded at the site. The reserve and visitor facility provide a great example of how a Natura Site can co-exist with a fully functioning port, while continuing to support its SPA features and attract visitors to the area.

#### **Case Study Y.1 (vi): Sustainable Catchment and Management Planning (SCaMP)**

The SCaMP implemented on Garron Plateau SAC is the result of a successful partnership between RSPB, NI Water, NIEA and local farmers. The 2,000ha project area surrounds the Dungonnell drinking water reservoir. The peatland habitat was in declining condition due to unsuitable grazing and historic drainage ditches were drying out the peat and acting as conduits for peat washing into the reservoir, discolouring the water. NI Water have to treat the water at considerable expense to

<sup>5</sup> Sim, O (2010) The Crown Jewel of Northern Ireland: The economic impact of the RSPB Seabird Centre and Reserve on Rathlin Island.

<sup>6</sup> [www.belfast-harbour.co.uk/port/](http://www.belfast-harbour.co.uk/port/)

remove the suspended and dissolved peat.

Through the SCaMP project, an appropriate grazing regime was agreed with the local farmers and the drainage channels were blocked. By blocking the drainage channels the water levels rise to rewet the peat. This both prevents further peat erosion and encourages the growth of peat forming vegetation, improving and restoring the SAC habitat. It also reduces the suspended and dissolved solids entering the reservoir and helps control a steady water supply, thereby directly reducing NI Water treatment and supply costs. Since completing the project, NI Water have stated that they intend to implement SCaMP across their reservoir catchments across Northern Ireland, many of which are within or adjoin Natura 2000 sites.

- RSPB had targeted the site *as it is part of the Natura 2000 network* and was in declining condition.
- The Garron work cost £21,000 and was completed in four months.
- Although still at an early stage of monitoring, there are indications of an immediate positive impact on water quality.
- An outcome from the work at Garron Plateau SAC is the implementation of SCaMP in other catchments by NI Water.

#### **Case Study Y.1 (vii): White-tailed eagles on Mull**

After being persecuted to extinction in the UK by 1916, legal protection for the White-tailed sea eagle and reintroduction has resulted in a significant recovery, with populations now established on both the west and east coasts of Scotland.

A study has estimated that on the Scottish island of Mull up to £5m of tourist spend per annum is attracted by white-tailed eagles, supporting 110 jobs and £1.4m of local income per annum<sup>7</sup>.

#### **Case Study Y.1 (viii): Whale watching in the UK**

Direct and indirect tourism spending due to dolphin and whale-watching in the UK has been rising since 1991 along with total visitor numbers<sup>8</sup>. Visitors who come to see the bottlenose dolphins in the Moray Firth SAC contribute more than £4m to the local economy<sup>9</sup> and have resulted in an active seasonal commercial boat-based industry, as well as providing a great opportunity for land-based watching and monitoring<sup>10</sup>.

<sup>7</sup> [http://www.rspb.org.uk/Images/wildlifeatwork\\_tcm9-282134.pdf](http://www.rspb.org.uk/Images/wildlifeatwork_tcm9-282134.pdf)

<sup>8</sup> Woods-Ballard, A.J., Parsons, E.C.M., Hughes, A.J., Velandar, K.A., Ladle R.J. 2003. The Sustainability of Whale-watching in Scotland. *Journal of sustainable tourism*. 11 (1): 40 – 55.

<sup>9</sup> Davies, B., Pita. C., Lusseau, D., Hunter, C. 2010. The value of Tourism Expenditure related to the East of Scotland bottlenose dolphin population. An Aberdeen Centre for Environmental Sustainability Report to the Moray Firth Partnership.

<sup>10</sup> Thompson, P.M., Lusseau, D., Corkrey, R., Hammond, P.S. 2004. Moray Firth bottlenose dolphin monitoring strategy options. Scottish Natural Heritage Commissioned Report No. 079 (ROAME No. F02AA409).

### **Case Study Y.1 (ix): Minsmere economic benefits<sup>11</sup>**

Many coastal regions of the UK and across Europe are economically disadvantaged. Protected areas can be important creators of jobs in SME enterprises within local communities where jobs are scarce. The RSPB estimates its Reserve network is responsible for providing around 2,000 jobs in local communities beyond the staff it employs directly. Minsmere, for example is part of the Minsmere and Walberswick SPA, a complex mosaic of habitats from mudflats, reedbeds to woodland. Not only is the RSPB the largest employer in the local parish council district but the presence of the Reserve attracts up to 100,000 visits annually to the local area. Using industry standard techniques, local spending by these visitors, which can be directly attributable to the Reserve, is estimated to be £3m per year. Using conservative employment multipliers, we estimate that this spend supports over 100 sustainable, non subsidised, full time jobs. These significant economic benefits are directly related to the features and species protected by the SPA designation.

### **Case study Y.2 (i): Cuts threaten European Marine Sites in England**

The regulatory burden placed on Inshore Fisheries and Conservation Authorities in England is considerable due to Defra's insistence of management feature by feature in its 'new approach' to managing European Marine Sites. IFCA's have had to re-focus their work onto tests of Likely Significance for all fishing gear / SAC feature interaction in all of their sites. This has not been budgeted for, and they are likely to face more cuts in 2016.

### **Case Study Y.2 (ii): No match funding in Northern Ireland**

In Northern Ireland, Ulster Wildlife has experienced significant difficulties in finding match funding as all public expenditure has to come from the NI block grant and nature conservation is not seen as a high priority compared with health, education, agriculture and economic development.

Easement of the need for match funding (or a reduction in its percentage) would considerably help both the statutory authorities and the voluntary sector in Northern Ireland and/or acceptance of contribution in kind e.g. volunteer time to provide the match funding.

A further barrier is the time lag between project initiation and payment. Any voluntary organisation securing funding needs to have adequate financial reserves to carry the project costs for 6-9 months. This limits the ability of local NGOs to apply for EU funding, as under the Charity Act 2013, the reserves that charities can carry are closely controlled.

### **Case Study Y.2 (iii): No funding to fill data gaps**

When reporting on Article 17 there are numerous occasions when the judgement is listed as 'unknown'. The way in which these unknowns could be evidenced is often recognised but it is the lack of funding to carry out the necessary research, monitoring or related projects that prevents Article 17 reporting for bats being more meaningful.

<sup>11</sup> [http://www.rspb.org.uk/Images/Reserves%20and%20Local%20Economies\\_tcm9-133069.pdf](http://www.rspb.org.uk/Images/Reserves%20and%20Local%20Economies_tcm9-133069.pdf)

### **Case Study Y.2 (iv): RSPB LIFE projects**

The RSPB has been involved in well over 30 LIFE projects, as Coordinating or Associated Beneficiary. See also the case study under S.3. These projects have demonstrated that targeted funding can effectively and efficiently deliver positive outcomes for nature. LIFE projects represent a treasure trove of best practice for conservation, but without a significant increase in funding for nature conservation at EU level there will be little scope for rolling out the lessons learned from LIFE projects more widely.

**Title: Restoring active blanket bog of European importance in North Scotland<sup>12</sup> and Wales<sup>13</sup>**

Ref: LIFE00 NAT/UK/7075 / LIFE06 NAT/UK/134

Active blanket bog is a starred (i.e. top-priority) habitat under the Habitats Directive. These projects restored more than 22,000 ha.

**Title: Developing a strategic network of SPA reedbeds for *Botaurus stellaris*<sup>14</sup>**

Ref: LIFE02 NAT/UK/8527

Bittern is listed in Annex I of the Birds Directive and is a top priority for funding through LIFE. This project optimised eight existing SPAs and created the right conditions for re-colonisation at a further 11.

**Title: Tackling climate change-related threats to an important coastal SPA in eastern England<sup>15</sup>**

Ref: LIFE07 NAT/UK/938

This was a managed realignment project to protect the vital freshwater habitats at the RSPB's Titchwell reserve – a key component of the North Norfolk Coast SPA.

**Title: Conserving machair habitats and species in a suite of Scottish Natura sites<sup>16</sup>**

Ref: LIFE08 NAT/UK/204

Machair is listed in Annex I of the Habitats Directive. This project aimed to protect and restore it throughout western Scotland, which holds approx 70% of the world total.

### **Case Study Y.4 (i): Cost effective enforcement in the marine environment**

In the UK marine environment, developing technologies are making enforcement of management measures around features inside European Marine Sites much more cost-effective. These technologies involve placing mobile phone 'black boxes' on top of the wheelhouses of vessels that send geo-locational information to a central data hub, then onto fisheries regulators. This technology can also store information on boats use of space until a signal is received. This is very cost-effective for the fishing industry, retail will be about £1000 with about £2-300 of annual costs in download time per vessel. This is much more cost-effective than for regulators to use traditional observance on the water that is subject to some interpretation.

<sup>12</sup> <http://www.lifepeatlandsproject.com/>

<sup>13</sup> [http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n\\_proj\\_id=3152&docType=pdf](http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3152&docType=pdf)

<sup>14</sup> [http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.createPage&s\\_ref=LIFE02%20NAT/UK/08527&area=1&yr=2002&n\\_proj\\_id=1971&cfid=424487&cftoken=220d6689dba6dc6d-95FE42FC-B69C-02BF-78DA30B0FA331B26&mode=print&menu=false%27%29](http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.createPage&s_ref=LIFE02%20NAT/UK/08527&area=1&yr=2002&n_proj_id=1971&cfid=424487&cftoken=220d6689dba6dc6d-95FE42FC-B69C-02BF-78DA30B0FA331B26&mode=print&menu=false%27%29)

<sup>15</sup> <http://www.rspb.org.uk/whatwedo/projects/details/262957-titchwell-marsh-coastal-change-project>

<sup>16</sup> <http://www.machairlife.org.uk/>

#### **Case study Y.4 (ii): A6 road proposals - Toome to Castledawson A6 dualling proposal**

The A6 road proposal provides an example that economic development projects can proceed despite Natura 2000 designations.

With careful route selection, coupled with good quality data on the SPA features (whooper swans), and agreement on appropriate mitigation measures it was concluded that the proposal would not result in harm to the swan population, or its supporting habitat thereby allowing a new route to run adjacent to the Lough Beg SPA, and through nearby fields used by the swans for winter foraging.

The A6 road still remains to be built, if and when it does, it will at least be a form of sustainable development through an internationally important landscape, where nature will be provided for, agreed as a result of the public enquiry that the SPA among other things forced at the time.

The A6 road still remains to be built. If and when it is, nature will be provided for as a result of the public enquiry that the SPA, among other things, forced at the time.

#### **Case Study Y.4 (iii): False economies in Northern Ireland**

The UK Government (mirrored in NI) has burdened itself administratively by trying to do the least possible to comply with the obligations of the Nature Directives. For example, a considerable number of meetings were arranged and reports were commissioned in order to avoid designating SACs for Harbour Porpoises. The Northern Ireland authorities had to fight a considerable campaign against the UK authorities to establish UK's first Harbour Porpoise SAC in the Skerries and Causeway. The UK authorities are now obliged to add additional sites for the Harbour Porpoise. It would have been less of a burden to fully embrace the nature Directives from the outset and make significant advances in surveillance, protection and habitat restoration/creation over the past two decades.

#### **Case Study Y.5 (i): Bat Conservation Trust**

##### **Working closely with law enforcement**

The Bat Conservation Trust works closely with the Wildlife Crime Unit, the Association of Chief Police Officers and the Law Commission to develop operating procedures and sentencing that is dissuasive whilst retaining a proportionate approach. Our investigations project logs all infringements and suspected crimes providing support and data on an annual average of 300 bat related crimes, approximately half of which are referred to the police. Of this figure, 80% are a result of development.

##### **BCT Bat Helpline/volunteers giving free advice**

At present Natural England, through BCT's National Bat Helpline and NE's network of Volunteer Bat Roost Visitors, can provide advice to homeowners and community initiatives free of charge to help overcome any necessary responsibilities the presence of bat roosts may impose. They can also advise those who want to do minor works on their houses. On an annual basis, BCT answers an average of 4000 customer queries from the general public on bats, planning, development and licensing on behalf of Natural England. With the help of volunteers, BCT then organises approximately 1700 visits, safeguarding an average of 1220 bat roosts.

This free advice does not currently extend to cover works that would require a licence, or that are

subject to planning permission. Any work relating to planning applications is referred to a consultant and the homeowner must pay for the advice. This distinction between volunteer and paid services is appropriate if the proposed works are complex, will require substantial mitigation, or are part of a wider development. However, in instances relating to low level disturbance this can be a disadvantage to homeowners where bats are present. It is in these instances that the low level licences and earned recognition will be appropriate (see 2 above) and reduce licence applications and the subsequent red tape by over 25%.

**Utilising expertise to inform and improve systems:**

The Bat Conservation Trust has developed an online knowledge hub, the ROOST website<sup>17</sup>, to share best practice in mitigation between professionals working in the field. This website provides numerous examples of situations where access to ecological expertise has prevented delay and in some cases avoided licensing in a responsible manner.

**Case Study Y.5 (ii): Sustainable Catchment Management Programme (SCaMP)**

The SCaMP was devised to ensure the sustainable environmental management of 20,000 ha of water catchment land under United Utilities' ownership in the Peak District and the Forest of Bowland. One of the main drivers was restoration of land with SSSI and SPA status supporting priority habitats such as blanket bog and heather moorland, and home to species such as the hen harrier, curlew and stonechat. Over recent decades, industrial pollution, drainage of the moorland peat, wildfires and agricultural practices have all had a negative environmental impact, affecting the wildlife value of the site. This has contributed to increased discolouration and pollution of water drawn from the catchment, which has to be removed through treatment processes before it is suitable for drinking.

A partnership between United Utilities, the RSPB and local farmers has developed an integrated approach to managing the land which complies with the Habitats Regulations, enhances biodiversity and improves the quality of the water abstracted for drinking, as well as providing an enhanced source of income for tenant farmers. In time healthy peat vegetation will absorb and store vast amounts of carbon and help mitigate the impact of climate change. Bryan Homan, Head of Catchment Operations at United Utilities has said: 'SCaMP is an innovative long-term catchment management scheme that unites both private and public funding. It is showing early signs of success at improving raw water quality whilst providing a multitude of community and environmental benefits'.

**Case Study Y.5 (iii): SCANS**

In some cases Member States have collaborated in order to cost-effectively implement requirements of the directives. One example of this is the collaboration between Member States to undertake large-scale surveys to estimate the abundance of small cetaceans in the European Atlantic and North Sea (SCANS-II) in line with the requirements under article 11. This project was supported by eleven partners in 10 countries and co-financed by institutions in seven countries, as well as being supported by dedicated Life funding. Sustained European funding streams are essential in order to support long-term monitoring at this scale.<sup>18</sup>

<sup>17</sup> <http://roost.bats.org.uk/>

<sup>18</sup> [http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n\\_proj\\_id=2621&docType=pdf](http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=2621&docType=pdf)

#### **Case Study Y.5 (iv): Ashton Court bat roosts**

Ashton Court, Bristol, has a Grade II\* listed lodge that needed to be refurbished to create residential living space<sup>19</sup>. However, this needed to be done whilst still allowing for the 5 species of bat (greater horseshoe, lesser horseshoe, common pipistrelle, barbastelle and brown long-eared bat) found on the site to continue to use the building. Advice from the consultant at an early stage allowed the living accommodation to be designed alongside the roost, allowing the bats to continue using the building, whilst also enhancing the roost for maternity use. As a result, the extension was carried out without delay and there has been a measured increase in the number of bats using the building. The maternity section is in use.

#### **Case Study Y.5 (v): Regulation delivers certainty**

The use of a regulatory approach in dealing with potentially damaging fishing activities in EMS in 2012-2016 in English waters is now allowing greater cost-effective dialogue between stakeholders and managers. Fishers are more certain of what they can and cannot do in sites now that leads to greater buy-in. This reduces the need to regulate and prosecute into the future, because fishers understand the need to protect sites.

#### **Case Study Y.5 (vi): The Lewis and Stornoway wind farms**

In November 2004, Lewis Windpower Ltd lodged an application to construct and operate 234 wind turbines on land mostly forming part of the Lewis Peatlands SPA in Scotland. The proposed wind farm would have resulted in significant habitat loss, disturbance and likely mortality to waterfowl species listed on Annex I of the Birds Directive, including red-throated diver *Gavia stellata*, and black-throated diver *Gavia arctica*.

Following vigorous objections from RSPB Scotland and SNH, Scottish Ministers refused consent in 2008<sup>20</sup>, concluding that the scheme would clearly result in an adverse impact on integrity of the Lewis Peatlands SPA, and there were alternative locations in Scotland that were more suitable<sup>21</sup>. Scottish Ministers also recognised that there would be potential socio-economic benefits to the local community in Lewis from construction of a large wind farm, and commissioned the engineering consultants Halcrow to investigate whether a suitable site could be identified in north Lewis where Natura 2000 concerns could be accommodated<sup>22</sup>.

The Halcrow report paved the way for a further application from Lewis Wind Power, in June 2011, for 42 turbines (151 MW), on what was effectively a new site, adjacent to the original application and to the SPA. By avoiding the SPA, the new project avoided the worst impacts of the original project, but still posed a significant risk of collision to golden eagles *Aquila chrysaetos*, forming part of the qualifying interest. Accordingly, RSPB Scotland and SNH again objected, but indicating that they would be prepared to reconsider their positions if the riskiest turbines were removed<sup>23</sup>. Lewis Wind Power agreed to do this, and Scottish Ministers consented the resulting 36 turbine scheme in September 2012<sup>24</sup>.

<sup>19</sup> <http://roost.bats.org.uk/case-studies/ashton-court>

<sup>20</sup> <http://www.gov.scot/Resource/0045/00452951.pdf>

<sup>21</sup> <http://www.gov.scot/Resource/0045/00452953.pdf>

<sup>22</sup> <http://www.gov.scot/resource/doc/917/0076743.pdf>

<sup>23</sup> <http://www.gov.scot/Resource/0039/00394143.pdf>

<sup>24</sup> <http://www.gov.scot/Resource/0040/00401460.pdf>

### **Case Study Y.5 (vii): Severn Barrage**

The Severn Estuary has the second highest tidal range in the world, making it a prime candidate for large-scale clean, renewable tidal energy production. It is also an SPA and SAC, and supports tens of thousands of birds and fish, many of which are migratory, as well as fishing, hunting and tourism. Following a feasibility study by the UK Government, a private consortium sought to construct a barrage across what is the UK's largest estuary. This would have slowed down water flows in the estuary, potentially affecting biodiversity in the estuary and preventing migratory fish and eels moving up the river. The Severn is the UK's longest river system and is prone to high nitrate levels from agricultural run-off, which the barrage may have captured and could have led to algal blooms.

As it became clear that the environmental impacts ranged from negative to unknown, this helpfully drew out the other side of the proposal question - what were the public benefits of the proposal? It became clear that these also needed further research. The level of public interest and impact led to a Committee of MPs considering the evidence and concluding the case for a barrage was not proven, at which point backing for the proposal failed. The fact that the estuary had SPA/SAC protection and the legal risk that carried helped to drive the investigation process and lead to the best-researched answer both in the interests of human society and of wildlife.

Four out of five local people surveyed did not want the barrage. But there does appear to be consensus among corporates, government, most NGOs and the public that the Severn could deliver clean, tidal power - especially given local resistance to wind turbines - and smaller projects are being considered that aim to provide cost-effective power without unacceptable damage to the environment. The SPA/SAC designation acts as a control and a driver for responsible innovation.

### **Case Study Y.6 (i): Strangford Lough**

In Northern Ireland, in the late 1980s and 1990s, research emerged indicating that the *Modiolus* reefs in the Strangford Lough SAC had been extensively damaged, most likely by commercial fishing through trawling and dredging. Despite restricting trawling and dredging to a southern zone of the Lough in 1993 and implementing a ban on fishing using these methods in 2003, the decline of the reefs has continued. As a result, the Ulster Wildlife (UW) has twice (in 2003 and 2011) made formal complaints to the European Commission (the Commission). UW considered that the two departments with a responsibility for the Lough, the Department of the Environment (DoE) and the Department of Agriculture and Rural Development (DARD), had failed to protect and restore the *Modiolus* reefs as required by the Habitats Directive. This is despite over £1million of public monies being spent on attempts to rectify the situation. Northern Ireland came very close to being fined by the ECJ for lack of compliance with the obligations of the Habitats Directive which were only staved off by implementing a comprehensive and costly habitat restoration plan.

In general the costs of non-implementation of legislation are not well understood and it would be useful if continued effort by the Commission is directed at capturing the costs, benefits and opportunities associated with effective implementation.

A key success factor for effective implementation is capacity building. Historically insufficient investment has been made in NI to raise awareness and improve understanding of the EU Directives. This upscaling should be directed at mainstreaming environmental issues within business decision making processes. It is important that adequate environmental education is provided for new entrants in formal qualifications and that compliance with environmental obligations is an integral requirement of any Business Improvement Schemes.

### **Case Study Y.6 (ii): Species at risk from non-implementation**

Mobile marine species, especially sea ducks, would suffer disproportionately from non-implementation of the legislation. Most of the key sites they occupy are not currently protected under national laws. SPAs designated under the Birds Directive are the only site protection currently in the UK that can protect these birds at a site level. Site level protection is important as threats tend to be habitat based and appropriate management is required.

Relevant species include the long tailed duck (listed as vulnerable on the IUCN redlist; only 4% of the UK population is protected through the SPA network) and velvet scoter (endangered on IUCN redlist, 21% of the UK population is protected through the SPA network), common scoter (only 12% of the non-breeding population is protected by the SPA network).

Migratory waterbirds need a network of sites throughout the flyway, and without SPAs this network would not exist and would affect the migration of many species of water bird. Bewick Swans have been tracked migrating from the UK to Matsalu Bay SPA, Estonia, Ringkøbing fjorda, Denmark which is also identified as a key site within the Bewick swan AEWA action plan.

### **Case Study Y.7 (i): UK Government Administrative Burdens Measurement Exercise**

The UK Government's Administrative Burdens Measurement Exercise (ABME) was launched in 2005 by the Government in response to the Better Regulation Task Force's report, 'Regulation: Less is More' as part of the Chancellor of the Exchequer's Better Regulation Action Plan (BRAP). The aim of the ABME is to estimate the administrative costs incurred by the private sector as a result of all regulations imposed by central government. The focus of the work has been on measuring the administrative costs of regulation rather than the compliance or policy costs. These are defined as 'the [recurring] costs of administrative activities that businesses are required to conduct in order to comply with the information obligations that are imposed through central government regulation.'

In total 362 regulations were identified as within the scope of the exercise which included 3,210 information obligations or data requirements (IO/DRs). These were spread across the following main policy areas of regulation: Animal Health and Welfare, Environment, Fisheries, Natural Resources and Rural Affairs, Sustainable Food and Farming. The total administrative cost to business for Defra's regulations is estimated at £735.7m.

The majority of this cost is accounted for by a small number of regulations and IO/DRs, with 61 obligations (less than 2% of the total number) having an estimated cost of over £2m. The highest proportion of administrative cost falls within the Animal Health and Welfare area, primarily impacting on the livestock industry.

The Habitats Regulations, which implement the Habitats Directive in the UK, accounted for £200,000 worth of administrative burden, i.e. less than 0.03 percent of Defra's total administrative burden. The Wildlife and Countryside Act 1981 accounted for £500,000 worth of administrative burden, i.e. less than 0.07 percent of Defra's total administrative burden<sup>25</sup>.

<sup>25</sup> <http://archive.defra.gov.uk/corporate/policy/regulat/documents/abme-report0612.pdf>

### **Case Study Y.7 (ii): “The Costs and Benefits of Defra’s Regulatory Stock, Emerging Findings From Defra’s Regulation Assessment”**

This UK Government study shows that we accrue at least £10 billion of benefit from environmental regulations, a return of £3 on every £1 spent. Although only 1% of cost to business relates to biodiversity, 10% of the benefit arises from biodiversity. Nearly £1bn of biodiversity benefits arise from enhancements to SSSIs. The report states:

‘The conservation and enhancement of biodiversity are critical for a healthy natural environment and for economic and social well-being. We rely on biodiversity for natural resources, for services pollination, the production of healthy fertile soils and so on; Recent studies, such as the ground breaking UK National Ecosystems Assessment help us to understand the true value of nature, for example pollinators are worth £430m per year to British agriculture. But it also shows that over 30% of our ecosystem services are in decline. We are committed to ambitious International and EU agreements to take urgent action to halt the declines in biodiversity.’

This report also found that there was a benefit to cost ration of around 9 to 1, i.e. every £1 spent on biodiversity conservation delivered £9 worth of benefits<sup>26</sup>.

### **Case Study Y.7 (iii): Bristol Deep Sea Container Terminal**

This case study concerns a proposed major new container terminal on the Severn estuary, involving land claim and creation of a new breakwater. The project was expected to have direct and indirect impacts on intertidal habitats within the Severn Estuary SPA, SAC and Ramsar site. The main impact would have been accretion of sediment on 80ha intertidal mud immediately upstream, of which 60ha lies within the SPA and is an important winter feeding area for c.3,000 waterbirds.

The Company embraced the Habitats Regulations positively and worked closely with regulators and the RSPB to identify key impacts, and agree mitigation and compensation and monitoring, set out in a detailed legal agreement.

Scientific studies concluded that changes to sedimentation were likely to have an adverse effect on the integrity of SPA and SAC habitats (a total of 80ha) which could not be mitigated. A comprehensive legal agreement was negotiated covering mitigation, compensation and monitoring requirements. The Port agreed to provide 120ha of intertidal habitats to be fully functioning in advance of the predicted damage i.e. created at least two winters before the damage would be triggered by construction.

The RSPB, Natural England and Countryside Council for Wales withdrew their objections on completion of the legal agreement. Withdrawal of objections meant that there was no need for a public inquiry to take place, and the Company eventually received its consent 15 months later in March 2010.

This case further developed the UK approach to habitat compensation delivery by explicitly requiring it to be fully functional before damage occurred – in line with UK and EU policy guidance.

The Company and the RSPB are now working together to design the intertidal habitat compensation

<sup>26</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69226/pb13623-costs-benefits-defra-regulatory-stock110816.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69226/pb13623-costs-benefits-defra-regulatory-stock110816.pdf)

project at Steart, North Somerset to meet the requirements of the legal consent. See Steart Marshes case study under R1

### **Case Study Y.7 (iv): European Protected Species**

In the UK the failure to assess and to define favourable conservation status for European Protected Species (EPS) at national level, or at the spatial levels appropriate for different species, lies at the heart of the current approach to their protection: without a handle on what favourable conservation status looks like, and therefore what is required to achieve it, a precautionary approach must be adopted based on a goal of no net loss (as it is not known what scale of loss might prove significant). Therefore, steps to assess and define favourable conservation status at the national and other appropriate spatial scales for EPS is a prerequisite for the effective conservation of these species, and for the development of a more streamlined and less precautionary approach to development impacts.

Data and knowledge of populations and ranges of some terrestrial EPS is improving, (e.g. our knowledge the bat populations and ranges of some bat species has improved due to volunteer efforts in the last decade), but there are still significant gaps and some species, e.g. great crested newts and some species of bats, where knowledge on populations and trends is incomplete.

Furthermore, in most cases knowledge of meta populations is inadequate to fully understand the direct and indirect impacts of developments on conservation status e.g. housing development resulting in destruction of common dormouse habitat and the subsequent arrival of domestic cats that then prey on these dormice. Steps to better define favourable conservation status should therefore be balanced with the need for robust data and spatial systems (e.g. sensitivity mapping) to back up the assessment process, and an understanding of the limitations of the available data.

The National Plant Monitoring Scheme (NPMS) is a new habitat-based plant monitoring scheme designed by BSBI, CEH, Plantlife and JNCC. The aim is to collect data to provide an annual indication of changes in plant abundance and diversity. Due to volunteers there is a good understanding of changes in the populations of birds, butterflies and bats. Plants are the foundation of habitats and ecosystems, but currently we do not have a good measure of changes in plant populations across the country. The scheme will improve plant taxa data and bring the understanding of plant populations in line with that of other taxa.

A report published by the PlantLink network in 2014 identified the actions required to meet the targets of the Global Strategy for Plant Conservation, which are linked the CDB Aichi targets and consequently will help achieve the EU Biodiversity Targets<sup>27,28</sup>.

### **Case Study Y.7 (v): 6(3) Cases across the EU<sup>29</sup>**

In 2013 the European commission funded a study on the Article 6.3 permit procedure of Habitats Directive. The number of countries for which there were accurate statistics about the use of the Article 6(3) procedure was small (BG, DE, SI, ES, UK), however these all backed up the report's findings 'that the majority of projects are screened out because they are considered not likely to have

<sup>27</sup> [http://www.plantlife.org.uk/uploads/documents/GSPC\\_report\\_-\\_long\\_version.pdf](http://www.plantlife.org.uk/uploads/documents/GSPC_report_-_long_version.pdf)

<sup>28</sup> [http://www.plantlife.org.uk/uploads/documents/GSPC\\_2014\\_print\\_version\\_FINAL\\_web.pdf](http://www.plantlife.org.uk/uploads/documents/GSPC_2014_print_version_FINAL_web.pdf)

<sup>29</sup> [http://ec.europa.eu/environment/nature/natura2000/management/docs/AA\\_final\\_analysis.pdf](http://ec.europa.eu/environment/nature/natura2000/management/docs/AA_final_analysis.pdf)

a significant effect on Natura 2000 sites. Of those that do go through a full Appropriate Assessment (AA), most are approved because the AA concludes that there is no adverse effect. The majority of the rest are reworked or redesigned and then approved. Only a small proportion of projects are actually abandoned because the AA has concluded an adverse effect and even fewer use the derogation procedure under Article 6.4.'

For example, in Bulgaria between 2009 and 2012 the Bulgarian Society for the Protection of Birds (BSPB) reviewed around 1,533 investment proposals in and around ten SPAs and 24 (around 2%) were considered to pose a threat for the habitats and species for which the site was designated. BSPB made 20 formal complaints to the Ministry of Environment, 1 to the Administrative Court and 2 to the Supreme Court. Six of the projects were reworked as a result of BSPB's interventions in order to remove the negative impacts on the SPAs, two have been refused permission, and decisions are still ongoing for one project. Three of BSPB's complaints were rejected and the projects implemented as originally planned.

In one of the largest counties in Baden Württemberg, Germany, statistics show that of the ca 1,000 plans and projects considered by the county's nature conservation authority in 2006, only about 10% were potentially relevant for Natura 2000. Of these 100 projects, 40 were screened out immediately as they were not considered likely to have a significant effect on a Natura 2000 site. The other 60 projects underwent a full AA but as most were small-scale projects with only local environmental impacts, the AA was generally no more than 6 pages long. A more detailed assessment was required for 6 of them and only one project was not approved because significant impacts could not be excluded and alternative solutions were not available.

In 2011 the Slovenian State Institute for Nature Conservation issued 2,820 opinions on plans or projects under the Article 6.3 procedure. 68 % showed no significant impacts and were consented, 27 % were approved once appropriate mitigation measures had been agreed and 2 % were refused because of their adverse affect on a Natura 2000 site. Statistics for 2007 – 2010 shows very similar figures for these opinions, ranging from 92 % to 95% of projects leading to the conclusion of no significant effect.

Since 2010 the Department of Agriculture, Rural Development, Environment and Energy in Extremadura, Spain has kept records of the number of plans and projects it has to deal with under the Article 6.3 procedure. The statistics show that the vast majority are either screened out or approved. Approximately 2% are refused because the AA shows significant effects. The majority of these are reworked and/or mitigation measures introduced following discussions between the authority and the developer and are therefore eventually approved.

The Commission study recommended that as there is a significant gap in knowledge 'It would be important for Member States to collect such statistics in order to develop a full appreciation of the scale of use and application of Article 6.3 in practice and whether or not it acts as a general block on development.'

**See also Annex V 6(3) cases**

### **Case Study Y.8 (i): Data gaps in Northern Ireland**

The Northern Ireland Environment Agency (NIEA) made an estimate<sup>30</sup> of the reliability of the data contained in the audit reports for the recent Article 17 UK report under the Habitats Directive (available at [www.jncc.gov.uk/page-4060](http://www.jncc.gov.uk/page-4060)), noting the number of occasions when 'expert opinion', 'expert judgement' or similar was referred to in the audit trail documents for the habitats and species accounts. This is not to decry the value of expert opinion although it would clearly be more convincing if it were supported by cogent scientific evidence. For the 89 UK species audits, only 18% did not resort to the support of expert opinion. The 77 UK habitat audits were a little better, with 37% not invoking expert judgement. Overall, 73% of the species and 59% of the habitat audits relied on up to three references to experts. There were some that relied even more heavily on expert judgement.

In the NIEA report, for some habitats and species the area of a habitat in the UK and the population data are stated as unknown although there are distribution maps showing where habitats and species have been found in a 10 km<sup>2</sup>. In these cases, the number of these 10 km<sup>2</sup> squares have been used as a proxy of the UK and NI resource. However, these can be taken only as a very rough estimate but do give an indication of the NI area and population compared with the UK as a whole.

### **Case Study Y.8 (ii): London Array Wind Farm**

The London Array Wind Farm, located between the Kent and Essex coasts, 20km offshore between two sandbanks, Long Sand and Knock Deep in the Outer Thames Estuary, was one of 15 companies granted a licence by The Crown Estate in its second round for offshore wind farm development. It was originally planned to consist of 341 turbines of 1GW capacity. However, survey identified a major concentration of wintering red-throated diver in the north-east area of the licensed area. Negotiations led to an innovative solution, in which construction of the wind farm would be phased to allow further monitoring of potential impacts before the second phase was constructed.

Inadequate marine survey prior to licensing meant that a major concentration of up to 6,500 wintering red-throated diver, the most important in English waters (and in excess of the total available estimate of the wintering population of the species at that time), had not been identified, nor the area designated SPA in a timely manner. Although Round 2 was subject to SEA, the available data to populate it was so weak it made the exercise almost meaningless. Thus the site was licensed, when a significant area should not have been and the ecological value of the site was only properly revealed by developer-led surveys.

Negotiations between the developer and (then) English Nature and RSPB, led to the site being regarded as though it were SPA given its high interest.

From an RSPB perspective, it would have been entirely valid to sustain on objection to the entire scheme, but in view of the importance of renewables in addressing climate change, and the variation in densities of red-throated divers across what was a large application site, the RSPB worked with the London Array Company and English Nature and agreed to phased approach using Grampian conditions.

The negotiations around this project generated a level of trust in which the Grampian condition approach became possible. The scheme was reduced to two-thirds of its original planned size. Post-

<sup>30</sup> [http://www.doeni.gov.uk/niea/strategy\\_surveillance\\_monitoring\\_european\\_protected\\_habitats\\_species\\_ni.pdf](http://www.doeni.gov.uk/niea/strategy_surveillance_monitoring_european_protected_habitats_species_ni.pdf)

scheme monitoring should produce valuable data with which to inform other windfarms involving red-throated divers<sup>31</sup>.

### **Case Study Y.8 (iii): Monitoring in Northern Ireland**

The Commission issued a reasoned opinion against the UK in 2008 judging that the UK legislation (at that date) did not ensure that surveillance of the conservation status of habitats and species would be undertaken on a systematic and permanent basis and thus existing surveillance schemes were not 'fit for purpose'. The appropriate amendments to address this in Northern Ireland were made as the Conservation (Natural Habitats, etc.) (Amendment) Regulations (Northern Ireland) 2009.

The Commission's 228 letter also stated that the surveillance obligation in 'Article 11 is fundamental' to the effectiveness of the Directive. In order to fulfil the obligations of these articles Member States are required to have a systematic and permanent plan for surveillance.

Northern Ireland published a strategy<sup>32</sup> which aims to assess the surveillance obligations within the territory of Northern Ireland but this has yet to be fully implemented. Many of the surveillance schemes that are in place were judged not to be permanent or systematic.

### **Case Study Y.8 (iv): SCANS II**

In the marine environment, large scale surveys such as SCANS-II must be supported by regular fine-scale national monitoring of conservation status. In the UK, the Joint Cetacean Protocol was developed to facilitate sharing and access to data collected by European governmental and non-governmental organisations in order to fill data gaps. However, it is essential that such initiatives are supported by sustained funding. Both within and outside SACs lack of funding has impeded efforts to collect long-term monitoring data<sup>33</sup>.

### **Case Study Y.8 (v): Biodiversity bridge**

The scheme to construct the A21 Lamberhurst bypass<sup>34</sup> in 2006 in Kent included the construction of a land-bridge that has been landscaped and planted with trees and shrubs in sympathy with the natural environment. Evidence suggests that the bridge has not only maintained the historic access to the National Trust's Scotney Castle Gardens and Park for future generations, but also provides a safe corridor for wildlife including dormice, badgers and bats.

Despite this success, the Post Opening Project Evaluation Report failed to include meaningful post construction monitoring data on the effectiveness of the bridge for mitigating biodiversity impacts. Without the on-going commitment to improve monitoring of existing schemes there will continue to be ineffective mitigation employed<sup>35</sup>.

<sup>31</sup> [http://www.rspb.org.uk/Images/rspb2ndsubmissionodefrahrcasestudycommentaryandanalysis\\_tcm9-305620.pdf](http://www.rspb.org.uk/Images/rspb2ndsubmissionodefrahrcasestudycommentaryandanalysis_tcm9-305620.pdf)

<sup>32</sup> [http://www.doeni.gov.uk/niea/strategy\\_surveillance\\_monitoring\\_european\\_protected\\_habitats\\_species\\_ni.pdf](http://www.doeni.gov.uk/niea/strategy_surveillance_monitoring_european_protected_habitats_species_ni.pdf)

<sup>33</sup> [http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n\\_proj\\_id=2621&docType=pdf](http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=2621&docType=pdf)

<sup>34</sup> [http://www.highways.gov.uk/roads/documents/POPE\\_A21\\_Lamberhurst\\_FYA\\_website\\_part\\_A.pdf](http://www.highways.gov.uk/roads/documents/POPE_A21_Lamberhurst_FYA_website_part_A.pdf)

<sup>35</sup> <http://assets.highways.gov.uk/our-road-network/pope/major-schemes/A21-Lamberhurst-Bypass/POPE%20-%20A21%20Lamberhurst%20FYA%20-%20website%20part%20A.pdf>