

Site Improvement Plan

Bowland Fells

Site Improvement Plans (SIPs) have been developed for each Natura 2000 site in England as part of the Improvement Programme for England's Natura 2000 sites (IPENS). Natura 2000 sites is the combined term for sites designated as Special Areas of Conservation (SAC) and Special Protected Areas (SPA). This work has been financially supported by LIFE, a financial instrument of the European Community.

The plan provides a high level overview of the issues (both current and predicted) affecting the condition of the Natura 2000 features on the site(s) and outlines the priority measures required to improve the condition of the features. It does not cover issues where remedial actions are already in place or ongoing management activities which are required for maintenance.

The SIP consists of three parts: a Summary table, which sets out the priority Issues and Measures; a detailed Actions table, which sets out who needs to do what, when and how much it is estimated to cost; and a set of tables containing contextual information and links.

Once this current programme ends, it is anticipated that Natural England and others, working with landowners and managers, will all play a role in delivering the priority measures to improve the condition of the features on these sites.

The SIPs are based on Natural England's current evidence and knowledge. The SIPs are not legal documents, they are live documents that will be updated to reflect changes in our evidence/knowledge and as actions get underway. The information in the SIPs will be used to update England's contribution to the UK's Prioritised Action Framework (PAF).

The SIPs are not formal consultation documents, but if you have any comments about the SIP or would like more information please email us at IPENSLIFEProject@naturalengland.org.uk, or contact Natural England's Responsible Officer for the site via our enquiry service 0300 060 3900, or enquiries@naturalengland.org.uk

This Site Improvement Plan covers the following Natura 2000 site(s)

UK9005151 Bowland Fells SPA

Site description

The Bowland Fells SPA is located to the east of Lancaster within north Lancashire. It supports the largest area of blanket bog and heather moorland within Lancashire and provides a habitat for an internationally important upland breeding bird community. The diverse mosaic of upland habitats across the Fells contributes greatly to the ornithological interest of the site which supports breeding Hen harrier (at its only regular breeding site in England), Merlin and one of five largest breeding colonies of Lesser black-backed gull in the UK, a SPA review and pSPA feature.

Plan Summary

This table shows the prioritised issues for the site(s), the features they affect, the proposed measures to address the issues and the delivery bodies whose involvement is required to deliver the measures. The list of delivery bodies will include those who have agreed to the actions as well as those where discussions over their role in delivering the actions is on-going.

Priority & Issue	Pressure or Threat	Feature(s) affected	Measure	Delivery Bodies
1 Low breeding success/ poor recruitment/ juvenile and adult survival	Pressure/ Threat	A082(B) Hen Harrier	Investigate causes and work with partner organisations to address these	Lancashire Police, Natural England, RSPB, United Utilities Water Plc, Landowner(s), Abbeystead Estate, Bleasdale Estate
2 Game management: grouse moors	Pressure/ Threat	A183(B) Lesser Black-backed Gull	Implement and monitor a strategy that maintains the integrity of the gull population	Natural England, RSPB, United Utilities Water Plc, Abbeystead Estate, Bleasdale Estate
3 Managed rotational burning	Pressure/ Threat	A082(B) Hen Harrier, A098(B) Merlin	Implement restoration plans that improve the condition of priority habitats and support notified birds	Natural England, Landowner(s)
4 Game management: grouse moors	Pressure	A082(B) Hen Harrier, A098(B) Merlin	Implement management which maintains the integrity of the populations of notified birds	Natural England, United Utilities Water Plc, Landowner(s), Abbeystead Estate, Bleasdale Estate
5 Changes in species distributions	Pressure/ Threat	A098(B) Merlin	Investigate reasons for Merlin decline	Natural England, RSPB, Local partnership
6 Change in land management	Pressure/ Threat	A082(NB) Hen Harrier	Ensure roost site management is favourable for Hen harrier	Natural England, Landowner(s)

7 Hydrological changes	Pressure	A082(B) Hen Harrier, A098(B) Merlin, A183(B) Lesser Black-backed Gull	Implement works to restore blanket bog habitats	Environment Agency, Forest Of Bowland AONB, Natural England, United Utilities Water Plc, Landowner(s), Abbeystead Estate, Bleasdale Estate, Pennine Peat LIFE (if funded)
8 Public Access/Disturbance	Pressure	A082(B) Hen Harrier	Manage public access away from sensitive nesting areas	Forest Of Bowland AONB, Lancashire County Council, Natural England
9 Air Pollution: risk of atmospheric nitrogen deposition	Threat	A082(B) Hen Harrier	Further investigate impacts on supporting habitat	Natural England
10 Invasive species	Threat	A082(B) Hen Harrier	Implement and monitor an appropriate Eagle owl management strategy	Defra, Natural England, RSPB, United Utilities Water Plc, Landowner(s), Abbeystead Estate, Bleasdale Estate

Issues and Actions

This table outlines the prioritised issues that are currently impacting or threatening the condition of the features, and the outstanding actions required to address them. It also shows, where possible, the estimated cost of the action and the delivery bodies whose involvement will be required to implement the action. Lead delivery bodies will be responsible for coordinating the implementation of the action, but not necessarily funding it. Delivery partners will need to support the lead delivery body in implementing the action. In the process of developing the SIPs Natural England has approached the delivery bodies to seek agreement on the actions and their roles in delivering them, although in some cases these discussions have not yet been concluded. Other interested parties, including landowners and managers, will be involved as the detailed actions are agreed and delivered. Funding options are indicated as potential (but not necessarily agreed or secured) sources to fund the actions.

1 Low breeding success/ poor recruitment/ juvenile and adult survival

Monitoring and management work on the Estate of United Utilities Water plc has there maintained a nesting density of Hen harrier which exceeds favourable condition guidelines. Suitable habitat exists across the whole SPA to support a favourable population of breeding Hen harrier, but long term numbers remain below this level.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1A	Gather evidence to increase understanding of Hen harrier populations across their range throughout the year and the activities affecting them.	£150,000	2014-20	Investigation / Research / Monitoring	Not yet determined	Natural England	RSPB, United Utilities Water Plc
1B	Work with the police and partner organisations to pursue any illegal activities detrimental to Hen harriers.	No funding required	2014-20	Enforcement	Not yet determined	Lancashire Police	Natural England, RSPB, United Utilities Water Plc, Landowner(s), Abbeystead Estate, Bleasdale Estate
1C	Work proactively with partner organisations, landowners and industry to promote positive working to improve the conservation status of raptors, in line with the Government's emerging national species recovery plan.	£700,000	2014-20	Advice: Education & awareness raising	Not yet determined	Natural England	Defra, Forest Of Bowland AONB, RSPB, United Utilities Water Plc, Landowner(s), Abbeystead Estate, Bleasdale Estate

2 Game management: grouse moors

The Lesser black-backed gull colony within the SPA is an important part of a declining UK population (which itself is a large proportion of the European population). The colony has been subject to consented culling for a number of years within the SPA. The extent of such control activities requires review in order to ensure that it does not have a significant impact on the integrity of the Lesser black-backed gull population within the SPA with reference to the national and European populations.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
2A	Monitor changes in numbers of Lesser black-backed gulls.	£40,000 over 5 years	2014-20	Investigation / Research / Monitoring	Not yet determined	Natural England	RSPB, United Utilities Water Plc, Abbeystead Estate, Bleasdale Estate
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
2B	Investigate and monitor the perceived impact of Lesser black-backed gulls on other features of the SPA and SSSI and on drinking water quality.	£20,000	2014-20	Investigation / Research / Monitoring	Not yet determined	Natural England	United Utilities Water Plc, Abbeystead Estate, Bleasdale Estate
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
2C	Agree and implement a management strategy that will ensure that there is no adverse effect on the integrity of the population of Lesser black-backed gulls.	No funding required	2014-16	Regulation: Compulsory Withdraw/Modify Notice/Consent	No funding required	Natural England	RSPB, United Utilities Water Plc, Abbeystead Estate, Bleasdale Estate

3 Managed rotational burning

There is strong evidence that managed rotational burning results in changes to plant species composition, peat properties, Dissolved Organic Carbon, peat chemistry, peat water table and peat flow-paths of blanket bog and upland wet heath habitats. Although managed burning is acceptable on upland dry heath, this needs to be appropriate to avoid deterioration. Managed burning can have both positive and negative impacts on the habitat for SPA birds through changes to vegetation structure.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
3A	Informed by the Uplands Evidence Review and burning guidance, review consents to ensure that they will contribute to enhancement of blanket bog and heath habitat to provide optimal nesting and foraging habitat for hen harrier and merlin.	Not yet determined	2014-20	Regulation: Issue Appropriate Notice/Consent	Not yet determined	Natural England	Landowner(s)

4 Game management: grouse moors

There are conflicts between an increase in Hen harrier populations and the maintenance of commercial grouse shoots within the SPA. Direct predation of Red grouse by Hen harriers can maintain game populations at low density and thus reduced shooting bags. Conversely, disturbance created by game management operations such as frequent use of access routes and of off-road vehicles e.g for access to gritting stations can affect Hen harrier nesting success.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
4A	Implement diversionary feeding on grouse moors where Hen harriers are breeding.	£6,000	2014-20	Major Landowner Group land ownership activities : Undertake Specific Management Works	Not yet determined	Natural England	United Utilities Water Plc, Landowner(s), Abbeystead Estate, Bleasdale Estate
4B	Ensure that management activities associated with grouse shooting, such as vehicle use, monitoring, gritting, etc., are compatible with Hen harrier nesting and/or feeding activities.	Staff time	2015-20	Regulation: Issue Appropriate Notice/Consent	Not yet determined	Natural England	United Utilities Water Plc, Abbeystead Estate, Bleasdale Estate

5 Changes in species distributions

There is a decline in Merlin numbers across England and this manifests itself with the SPA. Reasons for the decline are not fully understood.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
5A	National action is required to review and investigate reasons for Merlin population decline across England and implement any relevant recommendations within the SPA.	Not yet determined	2014-20	Investigation / Research / Monitoring	Not yet determined	Natural England	RSPB

6 Change in land management

Hen harrier disperse from breeding sites during the winter and often roost in rushy pastures and rough grazing. Cutting, drainage and/or overgrazing of some of these areas has reduced wintering habitat and may increase mortality.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
6A	Identify and monitor known and potential roost sites for Hen harriers that breed in the SPA and review management practices in and around these sites.	£50,000	2014-20	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a
6B	Using a voluntary approach, implement favourable land management on roost sites.	£20,000	2014-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	New Environmental Land Management Scheme (NELMS)	Natural England	Landowner(s)

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
6C	If a voluntary approach fails, use regulatory measures to implement favourable land management on roost sites.	No funding required	2014-20	Regulation: Compulsory Management Scheme/Notice	No funding required	Natural England	n/a

7 Hydrological changes

Hen harrier, Merlin and Lesser black-backed gulls use blanket bog habitat extensively both for nesting and foraging. Degradation and drying-out of the bog has led to a decline in habitat structure and a likely increase in erosion of the supporting peat body. Grip blocking and bog restoration projects have been carried out across large parts of the SPA with some success, although there are still large areas to be completed. Some areas of blanket bog are dominated by heather and lacking key habitat components, particularly *Sphagnum*, but have no obvious surface drainage.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
7A	Using a voluntary approach, carry out bare peat restoration, grip blocking, gully reprofiling and other hydrological restoration where work is incomplete and not already programmed (approximately 60% of the SPA by unit).	£8,500,000	2014-20	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	New Environmental Land Management Scheme (NELMS)	Natural England	Environment Agency, Forest Of Bowland AONB, United Utilities Water Plc, Landowner(s), Abbeystead Estate, Bleasdale Estate, Pennine Peat LIFE (if funded)

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
7B	If a voluntary approach fails, use a management notice or scheme to carry out bare peat restoration, grip blocking, gully reprofiling and other hydrological restoration where work is incomplete and not already programmed (approximately 60% of the SPA by unit).	Not yet determined	2014-20	Regulation: Compulsory Management Scheme/Notice	Not yet determined	Natural England	n/a

8 Public Access/Disturbance

Hen harrier are sensitive to disturbance, particularly at nesting time. Disturbance due to walking, cycling and other leisure activities on the fells will affect nesting success. Parts of the SPA have become more accessible since the CRoW Act. The effects of public access on potential breeding success is not well understood.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
8A	Implement an access monitoring survey around known and potential Hen harrier nesting areas, and compare these to pre-CRoW surveys to assess the extent of public access and the potential impact on SPA bird populations.	£15,000	2015-16	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
8B	Manage the promotion and regulation of public access so that disturbance to known Hen harrier nesting areas or those with high potential for nests is minimised.	£20,000	2016-20	Advice: Signage	Not yet determined	Forest Of Bowland AONB	Lancashire County Council, Natural England
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
8C	Manage the promotion and regulation of public access so that disturbance to known Hen harrier nesting areas or those with high potential for nests is minimised.	No funding required	2016-20	Regulation: Creation / amendment of byelaws	No funding required	Forest Of Bowland AONB	Lancashire County Council, Natural England

9 Air Pollution: risk of atmospheric nitrogen deposition

Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects. This requires further investigation.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
9A	Further investigate potential atmospheric nitrogen impacts on the site based on application of guidance from Chief Scientist Group Nitrogen Task and Finish Group.	Not yet determined	2014-17	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

10 Invasive species

Eagle owls have become resident near the SPA and predation of a Hen harrier nest by Eagle owls has been recorded. The future impact will depend on the availability of other prey species and the policy on control of Eagle owls.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
10A	Monitor populations of Eagle owls and prey species within the SPA and assess the impact of owls on Hen harrier nesting.	£10,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	RSPB, United Utilities Water Plc, Landowner(s), Abbeystead Estate, Bleasdale Estate
10B	Develop an appropriate management strategy for Eagle owls to minimise their impact on Hen harrier nests and prey.	£5,000	2016-20	Advice	Not yet determined	Natural England	Defra

Site details

The tables in this section contain site-relevant contextual information and links

Qualifying features

#UK Special responsibility

Bowland Fells SPA	A082(B) <i>Circus cyaneus</i> : Hen harrier
	A098(B) <i>Falco columbarius</i> : Merlin

Site location and links

Bowland Fells SPA

Area (ha) **16002.31** Grid reference **SD631547** [Map link](#)

Local Authorities Lancashire

Site Conservation Objectives [European Site Conservation Objectives for Bowland Fells SPA](#)

European Marine Site conservation advice [n/a](#)

Regulation 33/35 Package [n/a](#)

Marine Management Organisation site plan [n/a](#)

Water Framework Directive (WFD)

The Water Framework Directive (WFD) provides the main framework for managing the water environment throughout Europe. Under the WFD a management plan must be developed for each river basin district. The River Basin Management Plans (RBMP) include a summary of the measures needed for water dependent Natura 2000 sites to meet their conservation objectives. For the second round of RBMPs, SIPs are being used to capture the priorities and new measures required for water dependent habitats on Natura 2000 sites. SIP actions for non-water dependent sites/habitats do not form part of the RBMPs and associated consultation.

Bowland Fells SPA

River basin

[North West RBMP](#)

WFD Management catchment

Lune, Ribble, Wyre

WFD Waterbody ID (Cycle 2 draft)

GB112071065330, GB112071065370, GB112071065400, GB112071065410, GB112071065420, GB112071065430, GB112071065560, GB112072065821, GB112072065900, GB112072065960, GB112072066020, GB112072066050, GB112072066220, GB112072066230, GB112072066240

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Bowland Fells SPA	Bowland Fells SSSI

National Nature Reserve (NNR)	
Bowland Fells SPA	n/a

Ramsar	
Bowland Fells SPA	n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Bowland Fells SPA	n/a

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	18/12/2014	

www.naturalengland.org.uk/ipens2000

