

Site Improvement Plan

Leighton Moss

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)

UK9005091 Leighton Moss SPA

Site description

Leighton Moss SPA, situated adjacent to Morecambe Bay in the Arnside and Silverdale AONB, supports the largest reedbed in north west England and the only large reedbed in Lancashire.

The reedbeds and associated open water are important for breeding populations of Bittern and but the diversity of habitats supports a wide range of breeding birds and passage and wintering wildfowl.

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 Water Pollution	Pressure/ Threat	A021(B) Bittern	Reduce agricultural, and septic tank nutrient inputs into the catchment	Arnside & Silverdale AONB, Centre for Ecology and Hydrology (CEH), Environment Agency, Natural England, Landowner/occupier
2 Inappropriate water levels	Pressure	A021(B) Bittern	Allow more dynamic and naturally fluctuating water levels.	Natural England, Network Rail, RSPB
3 Deer	Pressure/ Threat	A021(B) Bittern	Reduce red deer numbers through a coordinated cull	RSPB, The Deer Initiative, Landowner/occupier
4 Siltation	Threat	A021(B) Bittern	Remove sediment from pools and lower areas of reedbed	Environment Agency, Natural England, RSPB
5 Coastal squeeze	Threat	A021(B) Bittern	Upgrade sea defences and create other reedbed areas further inland	Environment Agency, Natural England, Network Rail, RSPB

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 Water Pollution

Nutrient enrichment of groundwater from organic fertilisers (manure and slurry), inorganic fertilisers and septic tanks in the Leighton Moss catchment is an issue in the SPA. There are no mains sewers in the catchment. Point source pollution from septic tanks was identified as an issue in the Diffuse Water Pollution Plan. Water quality monitoring undertaken by RSPB at Leighton Moss shows elevated nutrient status (especially phosphate). Diffuse pollution from farming activities is identified as a major concern in the Diffuse Water Pollution Plan for the site.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Use NELMS to create buffer areas and reduce diffuse pollution through low input options within the catchment.	£50,000	2016-22	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	Landowner/occupier
1B	Investigate the potential for the Leighton catchment to become a Water Protection Zone if other mechanisms fail to deliver significant water quality improvements.	Not yet determined	2019	Regulation: Other - obtain appropriate permissions	Not yet determined	Environment Agency	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>
1C	Use Catchment Sensitive Farming grants to reduce point source pollution from farms adjacent to Leighton Moss and in the catchment.	£50,000	2016-22	England Catchment Sensitive Farming (CSF)	Not yet determined	Natural England	Environment Agency, Landowner/occupier
<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>
1D	Investigate significance of the septic tank point source pollution in the Leighton Catchment through the Septic Tank Risk Assessment Project (Underatken by CEH on NE's behalf).	Not yet determined	2013-14	Investigation / Research / Monitoring	Centre for Ecology and Hydrology (CEH)	Natural England	Centre for Ecology and Hydrology (CEH)
<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>
1E	Consider provision of grants for upgrading septic tanks in the catchment if findings from the Septic Tank Risk Assessment Project indicate that septic tanks are a significant contributing factor to diffuse pollution in the catchment (Dependent on funding becoming available).	£75,000	2015-21	Mechanism not identified / develop mechanism	Not yet determined	Environment Agency	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>
1F	Provide best practice advice regarding septic tank management.	Not yet determined	2015-21	Advice: Education & awareness raising	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>
1G	Implement Diffuse Water Pollution Plan.	Not yet determined	2014-17	Diffuse Water Pollution Plan	Not yet determined	Natural England	Arnsdale & Silverdale AONB, Environment Agency
<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>
1H	Water sampling of known septic tank discharge points.	£10,000	2014-19	Mechanism not identified / develop mechanism	Not yet determined	RSPB	Environment Agency, Natural England

2 Inappropriate water levels

Water levels in summer are too high, exacerbated by high rainfall events and a constrained outflow. The result is increased 'reed hover', reed die-back and difficulty implementing reed management. The relatively static water levels impact directly on breeding Bittern by decreasing reed quality and vigour, reducing the availability of wet reed for breeding Bittern and limiting access to fish prey. Prolonged wet conditions make reed cutting difficult resulting in a poor mosaic of age structure throughout the reed bed.

<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	Introduce periods of dynamic water level management.	Not yet determined	2014-17	Partnership agreement	No funding required, No net cost	RSPB	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>
2B	Investigate the potential of creating a new outflow to aid water leaving the site in periods of flood.	£150,000	2015	Flood Risk Maintenance Programme: Flood Risk Management - Capital/Improvement Schemes	Not yet determined	RSPB	Natural England, Network Rail

3 Deer

Damage to reedbed habitat from red deer movement, grazing and nutrient enrichment is a problem.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
3A	Reduce the Red deer population.	£20,000	2014-16	Major Landowner Group land ownership activities : Undertake Specific Management Works	RSPB	RSPB	The Deer Initiative, Landowner/occupier

4 Siltation

Siltation of the reedbed and open water has resulted in the reedbed becoming drier and the water column in the pools becoming shallower. This has impacts on breeding bittern by reducing the area of wet reed for breeding and limiting the access to fish prey.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
4A	Remove sediment and lower the reed bed.	£250,000	2015-17	Major Landowner Group land ownership activities : Undertake Specific Management Works	External funding	RSPB	Environment Agency, Natural England

5 Coastal squeeze

Saline intrusion occurs as a result of exceptional high tides in Morecambe Bay.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
5A	Develop a strategy to deal with climate change impacts such as saline intrusion from high tides.	£200,000	2014-16	Flood Risk Maintenance Programme: Flood Risk Management - Capital/Improvement Schemes	Not yet determined	Environment Agency	Natural England, Network Rail, RSPB

<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>
5B	Create new reedbed further inland in the AONB area and away from saline intrusion.	£200,000	2016-22	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	RSPB

Site details

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

Qualifying features

#UK Special responsibility

Leighton Moss SPA A021(B) *Botaurus stellaris*: Great bittern

Site location and links

Leighton Moss SPA

Area (ha) **128.61** Grid reference **SD483749** [Map link](#)

Local Authorities Lancashire

Site Conservation Objectives [European Site Conservation Objectives for Leighton Moss 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.

Leighton Moss SPA

<i>River basin</i>	North West RBMP
<i>WFD Management catchment</i>	Kent/Leven
<i>WFD Waterbody ID (Cycle 2 draft)</i>	GB112073071032

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Leighton Moss SPA	Leighton Moss SSSI

National Nature Reserve (NNR)	
Leighton Moss SPA	n/a

Ramsar	
Leighton Moss SPA	Leighton Moss

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Leighton Moss SPA	n/a

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	23/10/2014	

www.naturalengland.org.uk/ipens2000

