

## Site Improvement Plan

# Roydon Common and Dersingham Bog

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](mailto: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](mailto:enquiries@naturalengland.org.uk)

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

**UK0012801 Roydon Common & Dersingham Bog SAC**

## Site description

Roydon Common and Dersingham Bog SAC represents the largest and best examples of M16 *Erica tetralix* – *Sphagnum compactum* wet heath in East Anglia. This vegetation community is part of a lowland mixed valley mire, a complex series of plant communities grading from wet acid heath through valley mire to calcareous fen. The sites support many rare plants, birds and insects.

## 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 Hydrological changes	Pressure/ Threat	H4010 Wet heathland with cross-leaved heath, H7150 Depressions on peat substrates	Improve the hydrology of the site	Environment Agency, Natural England, Norfolk Wildlife Trust
2 Inappropriate ditch management	Pressure/ Threat	H7150 Depressions on peat substrates	Implement a ditch maintenance programme	Natural England, Norfolk Wildlife Trust
3 Air Pollution: risk of atmospheric nitrogen deposition	Threat	H4010 Wet heathland with cross-leaved heath, H7150 Depressions on peat substrates	Produce a Site Nitrogen action plan	Not yet determined
4 Changes in species distributions	Pressure	H7150 Depressions on peat substrates	Trial and monitor measures to address leachate	Natural England, Norfolk County Council, Norfolk Wildlife Trust
5 Undergrazing	Pressure	H4010 Wet heathland with cross-leaved heath, H4030 European dry heaths, H7150 Depressions on peat substrates	Implement an appropriate grazing regime	Natural England, Norfolk Wildlife Trust
6 Water Pollution	Pressure/ Threat	H4010 Wet heathland with cross-leaved heath, H7150 Depressions on peat substrates	Implement and monitor measures to reduce water pollution	Natural England, Norfolk Wildlife Trust

## 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 Hydrological changes

The SAC is at risk from changes in hydrology through drought and abstraction. There is some evidence of dehydration, although it is not clear if there is currently an impact on the site from current abstraction. Reduced ground water levels in dryer years results in increases scrub and nutrients, it assumed this pressure will become more severe as we experience exaggerated winter rainfall and less in summer. Changes in surface hydrology through lack of ditch management is covered in more detail in 'inappropriate ditch management'. There are also issues of terrestrialisation resulting from build up of purple moor-grass tussocks which is leading to drying out of the surface and loss of features.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Install water control structures to retain appropriate water levels and reduce impacts of drought on Roydon Common and Dersingham Bog.	£2,500	2017	National Nature Reserve (NNR) management plan	EU LIFE, Natural England, Heritage Lottery Fund (HLF)	Natural England	Norfolk Wildlife Trust
Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1B	Revisit the investigation into the impact of abstraction at Dersingham Bog.	£40,000	2019	Investigation / Research / Monitoring	EU LIFE, Natural England, Heritage Lottery Fund (HLF)	Natural England	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>
<b>1C</b>	Blocking up of old 'ghost' ditches to maintain flows and reduce the flux in water supply on Dersingham Bog.	£5,500	2019	National Nature Reserve (NNR) management plan	EU LIFE, Natural England, Heritage Lottery Fund (HLF)	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>
<b>1D</b>	Additional monitoring of ground water levels on Roydon Common by installing a network of 12 data-logging piezometers.	£14,647	2015-20	Existing Local Project	EU LIFE, Natural England, Heritage Lottery Fund (HLF), WREN Biodiversity Fund	Norfolk Wildlife Trust	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>
<b>1E</b>	Monitor surface water levels on Roydon Common and Dersingham Bog.	£350	2015-20	Investigation / Research / Monitoring	EU LIFE, Natural England, Heritage Lottery Fund (HLF), WREN Biodiversity Fund	Norfolk Wildlife Trust	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>
<b>1F</b>	Reverse terrestrialisation by removing the build-up of purple moor-grass tussocks at Roydon Common.	£47,430	2015-20	Existing Local Project	EU LIFE, Natural England, Higher Level Stewardship (HLS), Heritage Lottery Fund (HLF), WREN Biodiversity Fund	Norfolk Wildlife Trust	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>
<b>1G</b>	Remove scrub to reverse the effects brought about by hydrological changes on Roydon Common and Dersingham Bog.	£10,640	2015-18	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	EU LIFE, Natural England, Higher Level Stewardship (HLS), Heritage Lottery Fund (HLF), WREN Biodiversity Fund	Norfolk Wildlife Trust	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>
<b>1H</b>	Monitor the effects/success of remedial management measures (mowing and scrub removal) on Roydon Common and Dersingham Bog.	£4,018	2015-20	Existing Local Project	EU LIFE, Natural England, Higher Level Stewardship (HLS), Heritage Lottery Fund (HLF), WREN Biodiversity Fund	Norfolk Wildlife Trust	Natural England

## 2 Inappropriate ditch management

Lack of ditch maintenance has resulted in ditches overflowing and contaminating mire habitats with nutrient enriched water from the ditch. Ditch management is being undertaken and will need to be carried out on a rolling programme.

<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>
<b>2A</b>	Maintain ditches and control scrub to retain appropriate water levels at Dersingham Bog.	£20,000	2016	National Nature Reserve (NNR) management plan	EU LIFE, Natural England, Heritage Lottery Fund (HLF)	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>
<b>2B</b>	Restore ditch/stream function to sustain appropriate mire water levels without flooding at Roydon Common.	£2,276	2016-17	Existing Local Project	EU LIFE, Natural England, Higher Level Stewardship (HLS), Heritage Lottery Fund (HLF), WREN Biodiversity Fund	Norfolk Wildlife Trust	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>
<b>2C</b>	Remove scrub at Roydon Common.	£110,000	2015-16	Existing Local Project	EU LIFE, Natural England, Higher Level Stewardship (HLS), Heritage Lottery Fund (HLF), WREN Biodiversity Fund	Norfolk Wildlife Trust	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>
<b>2D</b>	Install water control structures at Roydon Common and Dersingham Bog.	£4,000	2016-17	Existing Local Project	EU LIFE, Natural England, Higher Level Stewardship (HLS), Heritage Lottery Fund (HLF), WREN Biodiversity Fund	Norfolk Wildlife Trust	Natural England

### 3 Air Pollution: risk of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads. Changes observed in colonising vegetation indicate that air pollution is affecting species composition. Over the last 10 years there has been an increase in cover of grasses, such as tufted hair grass, which indicates nitrogen deposition from external sources.

<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>
<b>3A</b>	Control, reduce and ameliorate atmospheric nitrogen impacts.	Not yet determined	2014-20	Site Nitrogen Action Plan	Not yet determined	Not yet determined	Not yet determined

## 4 Changes in species distributions

There have been shifts in species distribution from mire communities to swamp/ fen communities. This is partly due to leachate from landfill (next to changes in surface hydrology through lack of ditch maintenance and atmospheric nitrogen deposition).

<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>
<b>4A</b>	Water quality monitoring every 2 years on Roydon Common and Dersingham Bog.	£3,000	2015-20	National Nature Reserve (NNR) management plan	EU LIFE, Natural England, Heritage Lottery Fund (HLF)	Natural England	Norfolk Wildlife Trust
<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>
<b>4B</b>	Implement a trial phase of filtration beds to address the issue of leachate from landfill on Dersingham Bog.	£10,000	2019	Integrated Nutrient Management Plan: Nutrient Reduction Management Plan	EU LIFE, Local Authority, Natural England, Heritage Lottery Fund (HLF), WREN Biodiversity Fund	Natural England	Norfolk County Council

## 5 Undergrazing

Part of Roydon Common is currently not being grazed due to requirement for SoS approval to fence the site. The remaining units also have extensive areas of mire that is being undergrazed because they are too overgrown (mainly by purple moor-grass tussocks) which make these areas difficult for animals to access.

<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>
<b>5A</b>	Summer mowing and litter removal required at Roydon Common, to enable stock to graze mire.	£47,430	2015-20	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Higher Level Stewardship (HLS)	Norfolk Wildlife Trust	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>
<b>5B</b>	Adjust numbers and types of grazing stock at Roydon Common.	£11,383	2015-20	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Higher Level Stewardship (HLS)	Norfolk Wildlife Trust	Natural England
<b>5C</b>	Purchase a mobile cattle crush at Roydon Common.	£4,464	2018-19	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Higher Level Stewardship (HLS)	Norfolk Wildlife Trust	Natural England
<b>5D</b>	Secure permission for fencing on common land at Roydon Common.	No additional cost	2014-16	Advice	Higher Level Stewardship (HLS)	Natural England	n/a

## 6 Water Pollution

There are effects on water chemistry from agricultural activities within the catchment. There was also a pollution incident in 2012 when a pumping station was overwhelmed and raw sewage entered the site.

<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>
<b>6A</b>	Reduce diffuse inputs to Roydon Common through delivery of a Catchment Sensitive Farming initiative.	Not yet determined	2015	England Catchment Sensitive Farming (CSF)	Catchment Sensitive Farming (CSF)	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>
<b>6B</b>	Monitoring, to determine levels of Nitrogen and Phosphorous in the groundwater of the SAC, and make recommendations to eliminate or reduce the impacts.	£5,859	2015-20	Investigation / Research / Monitoring	EU LIFE, Natural England, Heritage Lottery Fund (HLF)	Natural England	Norfolk Wildlife Trust

## Site details

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

### Qualifying features

#UK Special responsibility

<b>Roydon Common &amp; Dersingham Bog SAC</b>	H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i>
	H4030 European dry heaths
	H7150 Depressions on peat substrates of the <i>Rhynchosporion</i>

### Site location and links

#### **Roydon Common & Dersingham Bog SAC**

Area (ha) **351.83**      Grid reference **TF686224**      [Map link](#)

Local Authorities      Norfolk

Site Conservation Objectives      [European Site Conservation Objectives for Roydon Common & Dersingham Bog SAC](#)

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.*

### **Roydon Common & Dersingham Bog SAC**

River basin	<a href="#">Anglian RBMP</a>
WFD Management catchment	North West Norfolk
WFD Waterbody ID (Cycle 2 draft)	n/a

## Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Roydon Common & Dersingham Bog SAC	Roydon Common SSSI Dersingham Bog SSSI
National Nature Reserve (NNR)	
Roydon Common & Dersingham Bog SAC	Dersingham Bog NNR Roydon Common NNR
Ramsar	
Roydon Common & Dersingham Bog SAC	Dersingham Bog
Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Roydon Common & Dersingham Bog SAC	n/a

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	19/01/2015	

[www.naturalengland.org.uk/ipens2000](http://www.naturalengland.org.uk/ipens2000)

