

Site Improvement Plan

Fenland

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)

UK0014782 Fenland SAC

Site description

The Fenland SAC is comprised of three fenland Sites of Special Scientific Interest: Woodwalton Fen, Wicken Fen and Chippenham Fen.

Each site generally consists of standing water bodies, ditch systems, bogs, marshes and broad-leaved woodland carr. The primary qualifying Fenland SAC features are the extensive examples of the tall herb-rich East Anglian type of M24 *Molinia caerulea* - *Cirsium dissectum* fen-meadow and the calcium-rich fen dominated by great fen-sedge *Cladium mariscus* and species of the *Caricion davallianae*.

Other qualifying features, although not the primary reason of the site's SAC selection, are the presence of Annex II species; great crested newt *Triturus cristatus* and spined loach *Cobitis taenia*.

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	H6410 Purple moor-grass meadows, H7210 Calcium-rich fen dominated by great fen sedge (saw sedge), S1166 Great crested newt	Undertake water quality assessment. Multiple collection points over prolonged period.	Environment Agency, Natural England
2 Hydrological changes	Threat	H6410 Purple moor-grass meadows, H7210 Calcium-rich fen dominated by great fen sedge (saw sedge), S1166 Great crested newt	Review the Water Level Management Plan (WLMP). Investigate other flood storage options on Great Fen land	Environment Agency, Huntingdonshire District Council, Natural England, Middle Level Commissioners IDB, Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire
3 Water Pollution	Pressure/Threat	H6410 Purple moor-grass meadows, H7210 Calcium-rich fen dominated by great fen sedge (saw sedge)	Undertake water quality assessment. Multiple collection points over prolonged period.	Environment Agency, Natural England
4 Hydrological changes	Pressure/Threat	H6410 Purple moor-grass meadows, H7210 Calcium-rich fen dominated by great fen sedge (saw sedge)	Pilot augmentation scheme. Monitor effects and produce an implementation plan.	Environment Agency
5 Air Pollution: impact of atmospheric nitrogen deposition	Pressure/Threat	H6410 Purple moor-grass meadows, H7210 Calcium-rich fen dominated by great fen sedge (saw sedge)	Further investigate potential atmospheric nitrogen impact on the site	Natural England

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

Woodwalton Fen is affected by high-nutrient water which inundates the site in winter and flows into the reserve ditches in summer. Despite recent improvements in the water quality feeding the site from the Great Raveley Drain, due to phosphate stripping in nearby sewerage treatment works, historical poor water quality has contributed to a decline in biodiversity and a decline in site features within the fen. This historic pollution has potentially bound to the silt of the slow moving internal ditches causing a distinct loss in rooted aquatic species. Despite the reduction in phosphates the nitrates still remain high in the Great Raveley Drain and high nutrient water can flood the site, particularly in winter. Over the past few decades, deteriorating water quality and more persistent flooding have contributed to a reduction in biodiversity and a decline in many site features.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Monitor the level of Diffuse Water Pollution Plan (DWP) impact on the site	£75,000	2015-18	Diffuse Water Pollution Plan	Not yet determined	Natural England	Environment Agency

2 Hydrological changes

The winter flood water at Woodwalton Fen has high silt and nutrient loads which get deposited on the site and can lie on the fields for prolonged periods. Flooding also delays the start of the grazing and mowing season, which in turn promotes the vigorous growth of invasive species like soft rush and reed. These species are replacing more diverse grassland communities in some areas in the south of the site where much of the site's SAC interests are situated. Instant impacts include damage and disruption to management infrastructure, flooding of nests and hibernacula (depending on time of year) and, in some instances, local extinction of species.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
2A	Review the Water Level Management Plan for the site and implement actions	£2,500,000	2017-2020	Water Level Management Plan	Flood and Coastal Erosion Risk Management (FCERM) 2015-21	Not yet determined	Environment Agency, Huntingdonshire District Council, Natural England, Middle Level Commissioners IDB, Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire

<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 alternative flood storage options on Great Fen land	Not yet determined	2015-2020	Water Level Management Plan	Flood and Coastal Erosion Risk Management (FCERM) 2015-21	Not yet determined	Middle Level Commissioners IDB

3 Water Pollution

Chippenham Fen is affected by high nutrient water reaching the fen from a mixture of groundwater, rainfall and run off. In periods of low flow, poor quality water may have a more dramatic effect on the site's vascular plant assemblages. There is uncertainty of the current water quality within Chippenham Fen at present.

<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>
3A	Water quality assesement on Chippenham Fen NNR.	£15,000	2014-18	Investigation / Research / Monitoring	Water Framework Directive (WFD)	Natural England	Environment Agency

4 Hydrological changes

There are concerns that water does not seep into site compartments between ditches to the extent it once did. A current project is underway at Chippenham Fen to look at how a site abstraction licence could be used to explore an alternative method to deliver support water. The water augmentation pilot project explores an alternative method of delivery of support water. The scheme is mitigation for the effects of public water supply abstraction.

<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>
4A	Monitor the effects of the pilot water augmentation scheme and consider implementation	£20,000	2014-17	Investigation / Research / Monitoring	Environment Agency	Environment Agency	n/a

5 Air Pollution: impact of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads. This has the potential to affect the Molinia meadow and calcareous fen features although there is no information known on any current impacts.

<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	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

Site details

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

Qualifying features

#UK Special responsibility

Fenland SAC	H7210# Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>
	H6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)
	S1149 <i>Cobitis taenia</i> : Spined loach
	S1166 <i>Triturus cristatus</i> : Great crested newt

Site location and links

Fenland SAC

Area (ha)	618.64	Grid reference	TL554701	Map link
Local Authorities				Cambridgeshire
Site Conservation Objectives				European Site Conservation Objectives for Fenland 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.

Fenland SAC

River basin

Anglian

[Anglian RBMP](#)

WFD Management catchment

Cam and Ely Ouse (including South Level), Nene

WFD Waterbody ID (Cycle 2 draft)

GB105033042780, GB105033042860, GB205033000050

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Fenland SAC	Wicken Fen SSSI Woodwalton Fen SSSI Chippenham Fen & Snailwell Poor's Fen SSSI
National Nature Reserve (NNR)	
Fenland SAC	Chippenham Fen NNR Wicken Fen NNR Woodwalton Fen NNR
Ramsar	
Fenland SAC	Chippenham Fen Wicken Fen Woodwalton Fen
Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Fenland SAC	n/a

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	06/10/2014	

www.naturalengland.org.uk/ipens2000

