Improvement Programme for England's Natura 2000 Sites (IPENS)

Planning for the Future

Site Improvement Plan

River Wensum

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)

UK0012647 River Wensum SAC

Site description

The Wensum SAC is a calcareous lowland river situated in the east of England. The river supports over 100 species of plants, including three species of water-crowfoot. The river also supports an eastern example of the riverine white-clawed crayfish and populations of Desmoulins whorl snail, Brook lamprey and Bullhead.

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 Physical modification	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1092 White-clawed (or Atlantic stream) crayfish, S1096 Brook lamprey, S1163 Bullhead	Restore appropriate channel morphology	Environment Agency, Natural England, Norfolk Rivers IDB, Norfolk Rivers Trust
2 Inappropriate weirs dams and other structures	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot	Remove structures where feasible or mitigate impact.	Environment Agency, Natural England
3 Siltation	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1092 White-clawed (or Atlantic stream) crayfish, S1096 Brook lamprey, S1163 Bullhead	Implement the Diffuse Water Pollution Plan (DWPP)	Anglian Water Services Ltd, Environment Agency, Natural England, Norfolk County Council, Norfolk Rivers IDB
4 Invasive species	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1016 Desmoulin`s whorl snail, S1092 White-clawed (or Atlantic stream) crayfish, S1096 Brook lamprey, S1163 Bullhead	Control signal crayfish populations and monitor white-clawed crayfish	Environment Agency, Natural England, Norfolk Rivers IDB, Norfolk Non-Native Species Initiative
5 Water Pollution	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1016 Desmoulin`s whorl snail, S1092 White-clawed (or Atlantic stream) crayfish, S1096 Brook lamprey, S1163 Bullhead	Implement schemes to address pollution (DWP and AMP)	Anglian Water Services Ltd, Environment Agency, Natural England, Norfolk County Council, Norfolk Rivers IDB
6 Water abstraction	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1016 Desmoulin`s whorl snail, S1092 White-clawed (or Atlantic stream) crayfish, S1096 Brook lamprey	Implement measures identified in the Restoring Sustainable Abstraction Programme	Anglian Water Services Ltd, Environment Agency, 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 Physical modification

Much of the river channel has been modified by artificial enlargement (over deepening, over widening and straightening). The extent of modification has been identified as part of the river restoration strategy

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1A	Continue progress with delivery of the River Wensum Restoration Strategy to address issues caused by modifed river channel.	£6,000,000-£10,000,000	2027	River Restoration Plan: Restoration Project	EU Life, Heritage Lottery Fund (HLF), Water Framework Directive (WFD), Flood and Coastal Erosion Risk Management (FCERM) 2015-21	Environment Agency/ Natural England	Norfolk Rivers IDB, Norfolk Rivers Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1B	Continue progress with delivery of the River Wensum Restoration Strategy on the headwaters to address issues caused by modifed river channel.	£660,000	2027	River Restoration Plan: Restoration Project	EU Life, Heritage Lottery Fund (HLF), Water Framework Directive (WFD), Flood and Coastal Erosion Risk Management (FCERM) 2015-21	Norfolk Rivers IDB	Environment Agency, Natural England

2 Inappropriate weirs dams and other structures

In-channel structures are adversely impacting flow by creating impoundment on the river and reducing hydromorphological & ecological connectivity.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2A	Continue progress with delivery of the River Wensum Restoration Strategy to address impoundment issues caused by inappropriate weirs and dams and other structures.	£3,200,000	2027	River Restoration Plan: Restoration Project	EU Life, Water Framework Directive (WFD), Flood and Coastal Erosion Risk Management (FCERM) 2015-21	Environment Agency/ Natural England	

3 Siltation

Major sediment ingress points have been identified on the upper and lower reaches of the river. Sediment often has nutrients attached, which has detrimental effects on water quality. It also directly affects the habitats of species. Sediment sources in the Wensum are derived from catchment runoff and are linked to field drainage systems/ ditch maintenance, erosion, tributary inputs and road drainage.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3A	Implement actions identified in Diffuse Water Pollution Plan and deliver Catchment Sensitive Farming Initiatives	Not yet determined	Not yet determined	Diffuse Water Pollution Plan	Environment Agency, EU Life, Natural England, Rural Development Programme (RDPE), Water Framework Directive (WFD), AMP process, Catchment Sensitive Farming (CSF)	Natural England	Anglian Water Services Ltd, Environment Agency, Norfolk County Council, Norfolk Rivers IDB

4 Invasive species

Presence of signal crayfish is a threat to the white-clawed crayfish and native fish species. Signal crayfish also impact on in-stream macrophytes and damage river banks. Invasive plant species compete with native species and reduce biodiversity, they can also exacerbate erosion and sediment ingress.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4A	Establish and implement an action plan for control of non native species. This will require mapping locations and extent of invasive populations and implementing a targeted programme of contol, particularly for Himalayan balsam and Japanese knotweed	Not yet determined	2015-20	Invasive Control Plan: Invasive Species Control Programme	EU Life, Rural Development Programme (RDPE), Water Framework Directive (WFD), Flood and Coastal Erosion Risk Management (FCERM) 2015-21	Natural England	Environment Agency, Norfolk Rivers IDB, Norfolk Non-Native Species Initiative

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4B	Continue to monitor both white-clawed and signal crayfish populations on the Wensum.	£10,000	2015-20	Investigation / Research / Monitoring	EU Life, Rural Development Programme (RDPE), Water Framework Directive (WFD), Flood and Coastal Erosion Risk Management (FCERM) 2015-21	Natural England	Environment Agency, Norfolk Rivers IDB, Norfolk Non-Native Species Initiative

5 Water Pollution

Water quality issues affect all SAC features. There are adverse impacts on water quality from discharge, pesticides and nutrients entering the river from the catchment.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5A	Ensure measures identified in the Diffuse Water Pollution Plan are implemented to address pollutants associated with runoff from road networks and the land in the catchment.	Not yet determined	Not yet determined	Diffuse Water Pollution Plan	Environment Agency, EU Life, Natural England, Rural Development Programme (RDPE), Water Framework Directive (WFD), AMP process, Catchment Sensitive Farming (CSF)	Natural England	Anglian Water Services Ltd, Environment Agency, Norfolk County Council, Norfolk Rivers IDB

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5B	Further investigate or identify actions required to meet the conservation objective for pollutants, to be implemented in the third round of River Basin Management Planning (RBMP3) from 2021. Conservation objective targets linked below.	Not yet determined	2021	Investigation / Research / Monitoring	Not yet determined	Environment Agency	Natural England

6 Water abstraction

Abstraction is adversely impacting the flow regime of the river. Changes to abstraction licences to relieve pressure on the river were identified through RoC and need implementation

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
6A	Ensure measures identifed in water companies AMP schemes are implemented	Not yet determined	2014-21	Water Industry Asset Management Plan (AMP): Implement Plan Scheme	Water company	Anglian Water Services Ltd	Environment Agency, Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
6B	Ensure measures identified in the Restoring Sustainable Abstraction Programme are implemented.	Not yet determined	2027	Restoring Sustainable Abstraction Programme: Abstraction Licence - Revoke/Amend	Environment Agency	Environment Agency	Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
6C	Further investigate or identify actions required to meet the conservation objective for flow, to be implemented in the third round of River Basin Management Planning (RBMP3) from 2021. Conservation objective targets are linked below.	Not yet determined	2021	Investigation / Research / Monitoring	Not yet determined	Environment Agency	Natural England

Site details

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

Qualifying features

#UK Special responsibility

River Wensum SAC	S1016 *Vertigo moulinsiana*: Desmoulin`s whorl snail
	S1092 *Austropotamobius pallipes*: White-clawed (or Atlantic stream) crayfish
	H3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation
	S1096 *Lampetra planeri*: Brook lamprey
	S1163 *Cottus gobio:* Bullhead

Site location and links

River Wensum SAC

Area (ha) **381.74** *Grid reference* **TG022176**	Map link
Local Authorities	Norfolk
Site Conservation Objectives	European Site Conservation Objectives for River Wensum 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 (RMBP) 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.

Additional information is provided on targets for flow and some water quality parameters, in order to meet the conservation objectives for certain Natura 2000 sites. The relevant targets are identified in the revised conservation objectives document (see link to PDF below).

These targets have been revised for a number of Natura 2000 rivers and lakes, following a review by the conservation agencies of Common Standards Monitoring Guidance. For rivers, this is done through local discussions between Natural England and Environment Agency staff. For lake sites, the only parameter where alignment of standards was reviewed was phosphorus and so this work was undertaken jointly at a national level.

The linked PDF documents include the proposed target values, and also set out an 'interim progress goal', that will need to be achieved by 2021. Where sufficient information is available the document also identifies a timescale for achievement of the longer-term target. For any sites where it has not been possible to agree specific targets, usually because further technical work is required, these will be indicated in the documents by an asterisk. For further information please see Part 2 of the River Basin Plan

River Wensum SAC

River basin	Anglian	Anglian RBMP
WFD Management catchment	Broadland Rivers	
WFD Waterbody ID (Cycle 2 draft)	GB105034051050, GB105034051070, GB105034051111, GB105034051120, GB105034055850, GB105034055860, GB105034055870, GB105034055881	
Locally revised Conservation Objectives	Moving towards common standards monitoring guidance targets for SAC rivers	
Additional information on locally revised Conservation Objectives	n/a	
EA/ NE agreed RBMP lake SAC targets	n/a	

River Restoration Plan

Source of information on river restoration plans for SAC rivers where these are in place or planned, with links to documentation where this is available.

Webpage link: Restoring Designated Rivers	Restoring Designated Rivers
River Restoration Plan document	Wensum SSSI and SAC

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
River Wensum SAC	River Wensum SSSI

National Nature Reserve (NNR)	
River Wensum SAC	n/a

Ramsar	
River Wensum SAC	n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
River Wensum SAC	n/a

Other relevant documents and links	
River Wensum SAC	River Wensum Restoration Strategy Geomorphological appriasal of the River Wensum SAC

Version	*Date*	*Comment*
1.0	08/10/2014	