

# Site Improvement Plan

## River Axe

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)**

**UK0030248 River Axe SAC**

## Site description

The lower reaches of the River Axe feature a mixed catchment geology of sandstones and limestones giving rise to calcareous waters and associated water-crowfoots *Ranunculus fluitantis* and water-starworts *Callitriche batrachion*. The river also supports the significant presence of sea lamprey, 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 Water Pollution	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1096 Brook lamprey, S1163 Bullhead	Reduce pollution levels, particularly phosphate	Centre for Ecology and Hydrology (CEH), Environment Agency, Natural England, South West Water Ltd, West Country Rivers Trust
2 Siltation	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1096 Brook lamprey, S1163 Bullhead	Reduce siltation	Environment Agency, Natural England, West Country Rivers Trust
3 Invasive species	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1096 Brook lamprey, S1163 Bullhead	Manage the spread of and, where possible eradicate invasive species	Environment Agency, Natural England, Rural Payments Agency (RPA)
4 Inappropriate weirs dams and other structures	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1096 Brook lamprey, S1163 Bullhead	Reduce the impact of physical modifications along the river	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 Water Pollution

Pollution as a result of run-off from agricultural fields and household effluent (i.e. from sewage treatment works and septic tanks) can lead to elevated levels of phosphate within the river. In turn, this can lead to excessive weed/algal growth resulting in changes to water chemistry, which is potentially damaging to the designated features of the SAC.

<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>1A</b>	Complete the Diffuse Water Pollution Plan and sign off.	No anticipated cost	2014	Diffuse Water Pollution Plan	No funding required	Natural England	Environment Agency
<b>1B</b>	Summary and mapping of all Catchment Sensitive Farming (CSF) measures catchment-wide undertaken to date to inform future targeting areas.	No anticipated cost	2014	Diffuse Water Pollution Plan	No funding required	Natural England	Environment Agency
<b>1C</b>	Summary and mapping of all Environmental Stewardship (ES) agreements catchment-wide to date to inform future targeting areas and monitoring effort.	No anticipated cost	2014	Diffuse Water Pollution Plan	No funding required	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>1D</b>	Walkover surveys in the catchment to identify diffuse and point source pollution.	No anticipated cost	2014-20	Diffuse Water Pollution Plan	No funding required	Environment Agency/ 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>1E</b>	Investigate the locations of septic tanks within the R. Axe catchment to identify potential sources of pollution including phosphate (SSSI Risk Assessment of Septic Tanks underway as part of a national project).	Not yet determined	2014	Diffuse Water Pollution Plan	Natural England, Water Framework Directive (WFD)	Natural England	Centre for Ecology and Hydrology (CEH), 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>1F</b>	Catchment Sensitive Farming (CSF) type advice programme.	£40/ha, plus staff time	2015-20	England Catchment Sensitive Farming (CSF)	Rural Development Programme (RDPE)	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>1G</b>	Catchment Sensitive Farming (CSF) type capital grants programme.	£400,000	2015-20	England Catchment Sensitive Farming (CSF)	Rural Development Programme (RDPE)	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>1H</b>	Targeted use of NELMs resource protection measures.	£400,000	2015-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	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>1I</b>	Investigate the need to improve discharges from sewage treatment works in line with the best available technology to accommodate housing growth.	Not yet determined	2016	Investigation / Research / Monitoring	Water company, PR19 (EA Asset Management Plan)	Natural England	Environment Agency, South West Water Ltd, West Country Rivers Trust

## 2 Siltation

Widespread siltation of riverine sediments, is caused by a range of factors including high particulate loads, reduced scour within the channel, active bank erosion, lack of riparian vegetation/trees, livestock poaching and the presence of Himalayan balsam. Siltation is a major threat as it causes many problems including restricted flow and excessive flooding, as well as changes to the general structure of the river and substrate which could potentially impact all of the SAC designated features.

<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>	Finalise the Diffuse Water Pollution Plan and complete sign off.	No anticipated cost	2014	Diffuse Water Pollution Plan	No funding required	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>2B</b>	Summary and mapping of all Catchment Sensitive Farming (CSF) measures catchment-wide undertaken to date, to inform future targeting areas.	No anticipated cost	2014	Diffuse Water Pollution Plan	No funding required	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>2C</b>	Summary and mapping of all Environmental Stewardship (ES) agreements catchment-wide to date, to inform future targeting areas and monitoring effort.	No anticipated cost	2014	Diffuse Water Pollution Plan	No funding required	Natural England	Environment Agency
<b>2D</b>	Walkover surveys in the catchment, to identify diffuse and point source pollution.	No anticipated cost	2014-20	Diffuse Water Pollution Plan	No funding required	Environment Agency/ Natural England	n/a
<b>2E</b>	Local delivery of riparian zone management.	£500,000	2015-20	Diffuse Water Pollution Plan	Environment Agency, Natural England, Water Framework Directive (WFD)	Natural England	Environment Agency, West Country Rivers Trust
<b>2F</b>	Catchment Sensitive Farming (CSF) type advice programme.	£40/ha, plus staff time	2015-20	England Catchment Sensitive Farming (CSF)	Rural Development Programme (RDPE)	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>2G</b>	Catchment Sensitive Farming (CSF) type capital grants programme.	£400,000	2015-20	England Catchment Sensitive Farming (CSF)	Rural Development Programme (RDPE)	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>2H</b>	Targeted use of NELMs resource protection measures.	£400,000	2015-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	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>2I</b>	Turbidity monitoring for suspended solids to assess levels of sedimentation.	Not yet determined	2015-20	Diffuse Water Pollution Plan	n/a	Environment Agency/ 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>2J</b>	Tree-planting along appropriate sections of the river to provide bank structure and physical habitat.	£1,000,000	2015-20	River Restoration Plan: Restoration Project	Rural Development Programme (RDPE)	Natural England	Environment Agency, West Country Rivers Trust

### 3 Invasive species

Invasive plant species within the Axe catchment include Himalayan balsam, Japanese knotweed and Giant hogweed. The most notable of these is Himalayan balsam which is almost ubiquitous through out the catchment. The balsam out-competes native flora and covers river banks during the summer months. At the start of the winter it dies back leaving the banks exposed, which leads to increased rates of erosion. This accelerates the deposition of sediment into the river channel.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
3A	Secure funding for the Axe Invasives Project which aims to remove Himalayan Balsam (and other invasive species) from the River Axe.	£1,000,000	2014-20	Invasive Control Plan: Invasive Species Control Programme	Not yet determined	Natural England	Environment Agency, Rural Payments Agency (RPA)

### 4 Inappropriate weirs dams and other structures

A major cause of unfavourable/declining condition is the presence of unnecessary and obstructive buildings and structures along the watercourse. Artificial channel modifications can cause reduced flow and increased siltation, altering the physical structure of the river and its ability to support special features. In addition, artificial barriers can significantly impair characteristic migratory species from carrying out essential life-cycle movements e.g. weirs at Axminster and Weycroft where fish passes are required. The River Restoration Project aims to remove inappropriate structures where possible.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
4A	Finalise the River Restoration Plan and complete sign off.	No anticipated costs	2014	River Restoration Plan: Restoration Project	No funding required	Environment Agency/ Natural England	n/a

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
4B	Implement actions relating to physical modifications including bridges, weirs and bank revetments with a view to replacing these with more sympathetic alternatives (actions cannot be confirmed until the River Restoration Plan is complete).	£3,000,000	2014-27	River Restoration Plan: Restoration Project	Environment Agency, Natural England, Rural Development Programme (RDPE), Water Framework Directive (WFD)	Environment Agency/ Natural England	n/a

## Site details

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

### Qualifying features

#UK Special responsibility

#### River Axe SAC

S1095 *Petromyzon marinus*: Sea lamprey

H3260 Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation

S1096 *Lampetra planeri*: Brook lamprey

S1163 *Cottus gobio*: Bullhead

### Site location and links

#### River Axe SAC

Area (ha) **25.78**      Grid reference **SY267961**      [Map link](#)

Local Authorities      Devon; Dorset

Site Conservation Objectives      [European Site Conservation Objectives for River Axe 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.

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 Axe SAC

River basin	South West	<a href="#">South West RBMP</a>
WFD Management catchment	East Devon	
WFD Waterbody ID (Cycle 2 draft)	GB108045008850, GB108045008870, GB108045014830, GB108045015130	
Locally revised Conservation Objectives	<a href="#">Moving towards common standards monitoring guidance targets for SAC rivers</a>	
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	<a href="#">Restoring Designated Rivers</a>
River Restoration Plan document	n/a

## Overlapping or adjacent protected sites

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

  

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

  

Ramsar	
River Axe SAC	n/a

  

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

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	09/10/2014	

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

