

Site Improvement Plan

River Derwent

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)

UK0030253 River Derwent SAC

Site description

The River Derwent SAC represents one of the best examples of a lowland classic river profile stretching from Ryemouth to the confluence of the Ouse. It supports diverse communities of flora and fauna, notably floating vegetation dominated by water crowfoot; and river lamprey, sea lamprey, otter 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/Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1099 River lamprey, S1163 Bullhead	Implement the actions of the River Restoration Plan	Environment Agency, Natural England, Landowner(s), East Yorkshire Rivers Trust
2 Water Pollution	Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1099 River lamprey, S1163 Bullhead, S1355 Otter	Implement the actions of the Diffuse Water Pollution Plan (DWPP)	Environment Agency, Natural England, Landowner(s), East Yorkshire Rivers Trust
3 Invasive species	Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1099 River lamprey, S1163 Bullhead	Development and implementation of an Invasives Control Plan	Environment Agency, Natural England, Landowner(s), East Yorkshire Rivers Trust
4 Change in land management	Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1099 River lamprey, S1163 Bullhead	Establish appropriate riparian management through implementation of NELMS	Natural England
5 Water abstraction	Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1099 River lamprey, S1163 Bullhead	Implementation of water resource management, in line with Common Standards Monitoring Guidance	Environment Agency

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

Agricultural floodplain drainage has increased the supply of fine sediment. Construction of flood embankments has removed connectivity with the floodplain for sediment deposition. Channelisation has changed the natural river system and created vertical bank profiles subject to failure. There are also six major in-channel structures in the SAC. The structures create a barrier to fish passage directly impacting upon migratory species such as lamprey. They restrict upstream movement of non-migratory fish and prevent natural sediment transfer. They impound the water, further restricting the natural processes of the river. Downstream of the weir structures higher flow does create pools and riffles favoured by the SAC species. It is considered that their removal where possible would restore a more natural system.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Options appraisal for removal of the six in-channel structures. Implementation of the outcome of the appraisal.	£6,000,000	2014-50	River Restoration Plan: Restoration Project	Environment Agency, EU Life, Water Framework Directive (WFD), Flood and Coastal Erosion Risk Management (FCERM) 2015-21	Environment Agency	Natural England, Landowner(s), East Yorkshire Rivers Trust
1B	Reconnecting the river to the floodplain, removing floodbanks where appropriate.	£10,000,000	2014-50	River Restoration Plan: Restoration Project	Environment Agency, EU Life, Water Framework Directive (WFD), Flood and Coastal Erosion Risk Management (FCERM) 2015-21	Environment Agency	Natural England, Landowner(s), East Yorkshire Rivers 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>
1C	Review of the River Restoration Plan.	£10,000	2015	River Restoration Plan: Restoration Project	Environment Agency, Natural England	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>
1D	Development of S41 Priority Species Actions for sea lamprey, river lamprey and bullhead.	Not yet determined	2015-20	Mechanism not identified / develop mechanism	Not yet determined	Not yet determined	n/a

2 Water Pollution

The agricultural soils of the Derwent Catchment are highly erodible and are thought to be the dominant source of sediment input into the system, entering via run-off and directly supplied by agricultural drainage systems. Cattle trampling in some riverbank areas also causes a direct input. Discharges vary in nature with some not being treated, which can have implications for the water quality required to support the interest 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>
2A	Reduction of sediment entering the river by implementing the actions of the Diffuse Water Pollution Plan.	Not yet determined	2014-21	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	Environment Agency, East Yorkshire Rivers 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>
2B	Management of discharges in line with Common Standards Monitoring Guidance agreed flow targets.	£10,000	2014-50	Investigation / Research / Monitoring	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>
2C	Implementation of S41 Priority Species Actions for otter and development of actions for sea lamprey, river lamprey and bullhead.	Not yet determined	2015-20	Mechanism not identified / develop mechanism	Not yet determined	Not yet determined	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>
2D	Further investigate or identify actions required to meet the conservation objective for the River Derwent, to be implemented in the third round of River Basin Management Planning (RBMP3) from 2021.	Not yet determined	2015-21	Investigation / Research / Monitoring	Not yet determined	Environment Agency	Natural England

3 Invasive species

Himalayan balsam is outcompeting marginal vegetation. Dieback in winter leads to bare ground subject to increased erosion and run-off into the river thereby increasing sediment loads. High levels of silt in the system leads to the smothering of aquatic plants (which require relatively clear, fast-flowing water), and smothering of lamprey and bullhead spawning areas (where clean, stable gravels are required). There are also problems with Giant Hogweed and Japanese Knotweed.

<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	Development and implementation of a catchment wide Invasive Non-Native Species control programme.	£50,000	2014-21	Invasive Control Plan: Invasive Species Control Programme	Environment Agency, EU Life, Water Framework Directive (WFD), Flood and Coastal Erosion Risk Management (FCERM) 2015-21	Environment Agency	Natural England, East Yorkshire Rivers 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>
3B	Development of S41 Priority Species Actions for sea lamprey, river lamprey and bullhead.	Not yet determined	2015-20	Mechanism not identified / develop mechanism	Not yet determined	Not yet determined	n/a

4 Change in land management

Changes in management of riparian habitats adjacent to the river and its tributaries could lead to increased sediment loads in the river. High levels of silt in the system leads to the smothering of aquatic plants (which require relatively clear, fast-flowing water) and smothering of lamprey and bullhead spawning areas (where clean, stable gravels are required).

<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	Implementation of appropriate riparian management.	Not yet determined	2014-21	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Natural England	Natural England (CSF)	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>
4B	Development of S41 Priority Species Actions for sea lamprey, river lamprey and bullhead.	Not yet determined	2015-20	Mechanism not identified / develop mechanism	Not yet determined	Not yet determined	n/a

5 Water abstraction

Over-abstraction can lead to reduced flow with negative implications for the SAC interest 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>
5A	Management of abstractions in line with Common Standards Monitoring agreed flow targets.	£10,000	2014-50	Investigation / Research / Monitoring	Not yet determined	Environment Agency	n/a

Site details

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

Qualifying features

#UK Special responsibility

River Derwent SAC

S1095 *Petromyzon marinus*: Sea lamprey

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

S1099 *Lampetra fluviatilis*: River lamprey

S1163 *Cottus gobio*: Bullhead

S1355 *Lutra lutra*: Otter

Site location and links

River Derwent SAC

Area (ha) **411.23** Grid reference **SE704474** [Map link](#)

Local Authorities East Riding of Yorkshire; North Yorkshire; York

Site Conservation Objectives [European Site Conservation Objectives for River Derwent 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 Derwent SAC

River basin	Humber	Humber RBMP
WFD Management catchment	Derwent (Humber)	
WFD Waterbody ID (Cycle 2 draft)	GB104027063420, GB104027063430, GB104027063440, GB104027063510, GB104027063550, GB104027063570, GB104027063580, GB104027063630, GB104027067750, GB104027068311, GB104027068312, GB104027068313	
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	Derwent SSSI and SAC

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
River Derwent SAC	River Derwent SSSI Newton Mask SSSI
National Nature Reserve (NNR)	
River Derwent SAC	Lower Derwent Valley NNR
Ramsar	
River Derwent SAC	Lower Derwent Valley
Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
River Derwent SAC	Lower Derwent Valley SPA

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	08/10/2014	

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