

# Site Improvement Plan

## Roman Wall Loughs

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)**

**UK0030267 Roman Wall Loughs SAC**

## Site description

The Roman Wall Loughs area contains three natural eutrophic lakes, Crag, Broomlee and Greenlee Loughs. Together the loughs contain 11 species of pondweed *Potamogeton* including *P. lucens*, *P. pusillus*, and *P. obtusifolius*.

*P. gramineus* occurs in all three loughs in an unusual association with stoneworts *Chara spp.*

The nationally-rare autumnal water-starwort *Callitriche hermaphroditica* occurs in Crag Lough. Shoreweed *Littorella uniflora* grows in Broomlee and Greenlee Loughs, and greater bladderwort *Utricularia vulgaris* in the latter.

## 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	Threat	H3150 Naturally nutrient-rich lakes or lochs which are often dominated by pondweed	Reduce any possible nutrient inputs from surrounding land	Environment Agency, Forestry Commission, National Trust, Natural England, Northumberland National Park Authority, Landowner(s), Tyne Rivers Trust, Land manager(s), Land agent(s), Landowner/occupier
2 Invasive species	Threat	H3150 Naturally nutrient-rich lakes or lochs which are often dominated by pondweed	Monitor negative indicator species	Environment Agency, Natural England
3 Feature location/ extent/ condition unknown	Threat	H3150 Naturally nutrient-rich lakes or lochs which are often dominated by pondweed	Review past evidence to understand the trophic status	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

Nutrient levels are currently too higher than expected for the open water bodies but the exact cause is unknown. There is a potential impact from surrounding land management, both farmland and forestry.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
<b>1A</b>	Create natural buffering by tree planting along the lough inflows at Greenlee Lough.	£1500	2014-16	Major Landowner Group land ownership activities : Undertake Specific Management Works	Not yet determined	Northumberland National Park Authority	Landowner(s), Tyne Rivers Trust
<b>1B</b>	Improve crossing points along Haughtongreen Burn, to reduce the amount of sediment getting into the watercourse.	£20000	2014-17	Major Landowner Group land ownership activities : Undertake Specific Management Works	Not yet determined	Northumberland National Park Authority	Landowner(s)
<b>1C</b>	Trial solar powered water troughs to keep cattle away from loughs or inflows.	£4200	2014-16	Major Landowner Group land ownership activities : Undertake Specific Management Works	Not yet determined	Northumberland National Park Authority	Landowner/occupier

<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>	Installation of small dams, and drain re-profiling on inflows to the loughs where appropriate (Greenlee and Broomlee loughs) to reduce phosphate input.	£3500	2014-16	Major Landowner Group land ownership activities : Undertake Specific Management Works	Not yet determined	Northumberland National Park Authority	National Trust, Landowner/occupier
<b>1E</b>	Continue liaison between the Forestry Commission and the Tyne Rivers Trust, to reduce the effects of forestry management on lough quality, including the construction of silt traps/ leaky dams in forestry streams leading to the loughs.	£1945	2014-17	Non-Natural England funded site management plan	Not yet determined	Tyne Rivers Trust	Forestry Commission
<b>1F</b>	Continue the monitoring of nutrient levels on inflows to the loughs.	£85560	2015-20	Investigation / Research / Monitoring	Not yet determined	Environment Agency	n/a
<b>1G</b>	Commission a study to link monitoring results to land management activities.	£10000	2015-18	Investigation / Research / Monitoring	Not yet determined	Northumberland National Park Authority	Land manager(s), Land agent(s)

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1H	Review all management agreements and consents around the SAC to check that these are still appropriate.	Not yet determined	2015-16	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Not yet determined	Natural England	National Trust, Landowner(s), Land manager(s), Land agent(s)

## 2 Invasive species

A number of negative indicator species including *Elodea Canadensis* and *Potamogeton pectinatus* have previously been recorded in the Loughs, and levels need to be monitored to ensure these do not increase.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
2A	Survey the lake macrophyte population to establish levels of invasive species	Not yet determined	2016-17	Investigation / Research / Monitoring	Not yet determined	Environment Agency	Natural England

## 3 Feature location/ extent/ condition unknown

There is discussion amongst interested parties that clarity on the true trophic status of the loughs is required in order to ensure correct management, and a review of past evidence would be useful in understanding the site better.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
3A	Undertake macrofossil analysis in order to establish the true natural trophic status of the loughs.	Not yet determined	2015-17	Investigation / Research / Monitoring	Natural England, SSSI funding	Natural England	n/a

## Site details

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

### Qualifying features

#UK Special responsibility

#### Roman Wall Loughs SAC

H3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation

### Site location and links

#### Roman Wall Loughs SAC

Area (ha) **684.26**      Grid reference **NY775695**      [Map link](#)

Local Authorities      Northumberland

Site Conservation Objectives      [European Site Conservation Objectives for Roman Wall Loughs 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

### Roman Wall Loughs SAC

River basin	Northumbria	<a href="#">Northumbria RBMP</a>
WFD Management catchment	Tyne	
WFD Waterbody ID (Cycle 2 draft)	GB103023075570, GB30328165, GB30328172, GB30328220	
Locally revised Conservation Objectives		
Additional information on locally revised Conservation Objectives	<a href="#">n/a</a>	
EA/ NE agreed RBMP lake SAC targets	<a href="#">Proposed total phosphorus targets for Lake Natura 2000 Protected Area Special Areas of Conservation for the updated river basin management plan consultation</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="#">n/a</a>
River Restoration Plan document	<a href="#">n/a</a>

## Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Roman Wall Loughs SAC	Roman Wall Loughs SSSI

National Nature Reserve (NNR)	
Roman Wall Loughs SAC	Greenlee Lough NNR

Ramsar	
Roman Wall Loughs SAC	n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Roman Wall Loughs SAC	n/a



<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	15/10/2014	

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

