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

Planning for the Future

Site Improvement Plan

Tyne and Allen River Gravels

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)

UK0012816 Tyne & Allen River Gravels SAC

Site description

This site in north-east England encompasses the most extensive, structurally varied and species-rich examples of riverine Calaminarian grasslands in the UK. The river gravels contain a range of structural types, ranging from a highly toxic, sparsely vegetated area with abundant lichens through to closed willow/alder *Salix/Alnus* woodland. In addition, the site is of considerable functional interest for the series of fossilised river channel features.

Spring sandwort *Minuartia verna* and thrift *Armeria maritima* are particularly abundant, and there are several rare species, including Young's helleborine *Epipactis youngiana*, (recently re-identified as *Epipactus dunensis*.) which has its main UK population at this site. The site is also of great importance for its lichen communities. A number of rare and scarce species are present, including the Red Data Book-listed *Peltigera venosa*.

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 Change to site conditions	Pressure/ Threat	H6130 Grasslands on soils rich in heavy metals	Evaluate the impact on the site of reduced pollution levels in the river, and identify management measures	Environment Agency, Natural England
2 Invasive species	Pressure	H6130 Grasslands on soils rich in heavy metals	Continue survey and control project with associated partners	Natural England, Landowner/occupier
3 Inappropriate scrub control	Pressure	H6130 Grasslands on soils rich in heavy metals	Encourage owners/managers to instigate programmes of scrub removal and possible soil stripping	Landowner/occupier
4 Air Pollution: impact of atmospheric nitrogen deposition	Pressure	H6130 Grasslands on soils rich in heavy metals	Control, reduce and ameliorate atmospheric nitrogen impacts	Not yet determined

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 Change to site conditions

Sustaining the calaminarian grassland interest feature requires continuing metal toxicity and open ground. The tendency is for metal pollutant levels to decline naturally over time unless there is periodic replenishment of mine spoil metals, for example by flooding. This has been happening in the Tyne since the cessation of mining in the upper reach. Without replenishment a more enriched grassland type will result, usually at the expense of the original calaminarian grassland species. The Environment Agency (EA) are seeking to reduce pollution levels further to meet Water Framework Directive objectives for water quality. Any such work, including restoration of mine sites, to reduce metal pollutants entering the Tyne would exacerbate the reduction in metal levels, leading to a faster change in habitat type.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1A	Evaluate the situation regarding reduced pollution levels in the river and the impact that this is having on the site. Identify further management measures to improve site condition.	Not yet determined	2016	Existing Local Project	Not yet determined	Natural England	Environment Agency

2 Invasive species

There is a serious problem with invasive non-native plant species on the South Tyne, which colonise sites faster than native scrub. Encroachment by Himalayan balsam and Japanese knotweed is detrimental to calaminarian grassland habitat.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2A	Removal and control of invasive species throughout the South Tyne catchment.	£15,000-£20,000 per year	2014 onwards	Existing Local Project	Water Framework Directive (WFD)	Natural England	Landowner/occupier

3 Inappropriate scrub control

The reduced levels of pollution are leading to an increase in scrub and invasive species on the sites. Flood events no longer 'top up' the sites with polluted silt that can control the build up of scrub.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3A	Implement the removal of native scrub, and remove layers of non-polluted soil from areas of the site. Remove self-set trees and gorse.	Not yet determined	2020	Habitat creation / restoration strategy: Habitat restoration	Not yet determined	Landowner/occupier	n/a

4 Air Pollution: impact of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads. The precise impacts are unclear and require further investigation. One specific area of concern is that it may be increasing grass-dominance at the expense of the less competitive plants.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4A	Control, reduce and ameliorate atmospheric nitrogen impacts	Not yet determined	2014-20	Site Nitrogen Action Plan	Not yet determined	Not yet determined	Not yet determined

Site details

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

Qualifying features

#UK Special responsibility

Tyne & Allen River Gravels SAC	H6130 Calaminarian grasslands of the *Violetalia calaminariae*

Site location and links

Tyne & Allen River Gravels SAC

Area (ha) **36.84** *Grid reference* **NY689624**	Map link
Local Authorities	Northumberland
Site Conservation Objectives	European Site Conservation Objectives for Tyne & Allen River Gravels 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.

Tyne & Allen River Gravels SAC

River basin	Northumbria RBMP
WFD Management catchment	Tyne
WFD Waterbody ID (Cycle 2 draft)	GB103023074700, GB103023075531

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Tyne & Allen River Gravels SAC	Lambley River Shingles SSSI
	Williamston River Shingle SSSI
	Burnfoot River Shingle & Wydon Nabb SSSI
	Ninebanks River Shingle SSSI
	Wharmley Riverside SSSI

National Nature Reserve (NNR)	
Tyne & Allen River Gravels SAC	n/a

Ramsar	
Tyne & Allen River Gravels SAC	n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Tyne & Allen River Gravels SAC	n/a

Version	*Date*	*Comment*
1.0	18/12/2014	