

# Site Improvement Plan

## Tyne and Nent

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)**

**UK0030293 Tyne & Nent SAC**

## Site description

Tyne and Nent calaminarian grasslands are anthropomorphic in origin, and have been formed by the rivers Tyne and Nent depositing former mining debris/spoil on riverbanks and floodplains. The term 'calaminarian' refers to these deposits that contain high concentrations of heavy metals- typically copper, lead, zinc and cadmium. The impact of the deposition is the formation of vegetation communities that show high tolerance to the polluted mine spoil, or at least can grow without the competition that they would otherwise receive in more mesotrophic grassland. Hence, sparsely vegetated habitats evolve which have species such as alpine pennycress, scurvygrass, thrift, and spring sandwort amongst others. Lichens may also be a feature of these habitats.

## 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	Threat	H6130 Grasslands on soils rich in heavy metals	Manage the metalliferous gravels, to continue to support the habitat	Environment Agency, Natural England
2 Inappropriate scrub control	Pressure	H6130 Grasslands on soils rich in heavy metals	Allow the river to flood to ensure that scouring action continues	Forestry Commission, Natural England
3 Natural changes to site conditions	Threat	H6130 Grasslands on soils rich in heavy metals	Manage the gravels supporting metaliferous grassland to continue to support the habitat	Environment Agency, Natural England
4 Direct impact from 3rd party	Threat	H6130 Grasslands on soils rich in heavy metals	Prevent dumping of spoil/stone materials on the sites	Natural England
5 Air Pollution: risk of atmospheric nitrogen deposition	Threat	H6130 Grasslands on soils rich in heavy metals	Further investigate the impacts of atmospheric nitrogen deposition	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 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. Without replenishment a more enriched grassland type will result, usually at the expense of the original calaminarian grassland species. Restoration of mine sites eg Nenthead, to reduce metal pollutants entering the Nent 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	Determine for this site how metallophyte interest can be sustained in the context of Water Framework Directive objectives to improve water quality. Seek to reduce the impact of any restoration works on the calaminarian grassland interest feature and ongoing recharge of metals to the site.	£30,000	2014-20	Mechanism not identified / develop mechanism	Environment Agency, Water Framework Directive (WFD)	Not yet determined	Environment Agency, Natural England

### 2 Inappropriate scrub control

Increases in scrub or woodland cover are detrimental to the calaminarian grassland interest feature through loss of open ground. Much of the calaminarian grassland interest feature has already been lost in part of the SAC and woodland planting or natural regeneration may impact still further. The key aim is to maintain open ground and continue to allow the river to flood, thereby enabling the release of metals through bankside scouring.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
2A	Undertake appropriate scrub control on riverbanks to ensure that the scouring action of natural dynamic river processes is allowed to provide suitable gravel substrate for plant colonisation on the South Tyne and Nent rivers.	Not yet determined	2014-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Not yet determined	Forestry Commission, Natural England

### 3 Natural changes to site conditions

Gradual loss of pollutant 'strength' may impact the grassland as other species can tolerate less toxic conditions. In time, Calaminarian grassland may be replaced by a more mesotrophic type.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
3A	Ensure gravels supporting metaliferous grassland are sufficiently 'charged' to continue providing niche habitat, by artificially disturbing more settled gravels to prevent succession.	£2,000	2014-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	Environment Agency

### 4 Direct impact from 3rd party

There is a threat of scrap / waste material entering the site from a nearby source. Vegetation loss will result if this obscures the interest feature.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
4A	Prevent dumping of spoil/stone materials on the site.	Staff time	2014-20	Advice	Staff time	Natural England	n/a

### 5 Air Pollution: risk of atmospheric nitrogen deposition

Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site. This requires further investigation.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
5A	Further investigate potential atmospheric nitrogen impacts on the site based on application of guidance from Chief Scientist Group Nitrogen Task and Finish Group	Not yet determined	2014-17	Investigation / Research / Monitoring	Not yet determined	Natural England	Not yet determined

## Site details

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

### Qualifying features

#UK Special responsibility

**Tyne & Nent SAC** H6130 Calaminarian grasslands of the *Violetalia calaminariae*

### Site location and links

#### Tyne & Nent SAC

Area (ha) **36.84**      Grid reference **NY715448**      [Map link](#)

Local Authorities      Cumbria

Site Conservation Objectives      [European Site Conservation Objectives for Tyne & Nent 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.*

### **Tyne & Nent SAC**

River basin

[Northumbria RBMP](#)

WFD Management catchment

Tyne

WFD Waterbody ID (Cycle 2 draft)

GB103023075420, GB103023075531

## Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
<b>Tyne &amp; Nent SAC</b>	Whitesike Mine and Flinty Fell SSSI Haggs Bank SSSI Alston Shingle Banks SSSI
National Nature Reserve (NNR)	
<b>Tyne &amp; Nent SAC</b>	n/a
Ramsar	
<b>Tyne &amp; Nent SAC</b>	n/a
Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
<b>Tyne &amp; Nent SAC</b>	n/a

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	11/12/2014	

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

