

# Site Improvement Plan

## Barnack Hills & Holes

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)**

**UK0030031 Barnack Hills & Holes SAC**

## Site description

Barnack Hills and Holes is an area of Jurassic Limestone grassland which has developed on the site of a disused mineral working/quarry. The grassland is of a type characteristic to eastern England and is now scarce in Britain as a result of reclamation for agriculture. The grassland is of a tor-grass *Brachypodium pinnatum*-upright brome *Bromus erectus* type and there is a rich and varied flora with a number of species which are nationally scarce.

Of particular note is the abundance of pasque flower *Pulsatilla vulgaris*. Many other species typical of limestone grassland occur including a number of orchids, purple milk-vetch *Astragalus danicus* and the common rock-rose *Helianthemum nummularium*.

## 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 Changes in species distributions	Threat	H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Investigate and monitor status of Man Orchid populations	Natural England
2 Public Access/Disturbance	Pressure	H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Research and mitigation of visitor impacts	Natural England, Peterborough City Council, Landowner(s), Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire, Langdyke Trust
3 Air Pollution: impact of atmospheric nitrogen deposition	Threat	H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Investigate potential atmospheric nitrogen impacts on the site	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 Changes in species distributions

There is a long term decline in population of Man Orchid *Aceras anthropophorum*, part of the SAC feature for the site. Numbers peaked in the 1980s and have shown a declining trend since. The reasons for this are poorly understood.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Investigate and monitor status of Man Orchid, increase depth and complexity of monitoring in relation to management prescriptions.	Not yet determined	2014-17	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

### 2 Public Access/Disturbance

High level of public use relative to size of site is causing compaction and degradation of habitat, spread of negative indicator species, and nitrogen loading due to high number of dogs using the site.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
2A	Establish baseline figures for levels of use and impact, including visitor numbers, compaction, and soil enrichment.	£500	2014-17	Investigation / Research / Monitoring	Natural England	Natural England	n/a

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
2B	Mitigate nitrogen enrichment through introduction of comprehensive dog waste removal policy to include bins, signs, PR and community engagement.	£600	2014-15	National Nature Reserve (NNR) management plan	Natural England	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>2C</b>	Continue mitigation of disturbance and compaction by use of temporary protection areas around key populations during peak flowering season.		2014-24	National Nature Reserve (NNR) management plan	Not yet determined	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>2D</b>	Scope out and progress long-term sustainable future for the site by developing alternative provision to meet access and recreational demands whilst providing additional biodiversity benefits.	£500,000	2014-24	Land / Tenancy Acquisition: Tenancy Negotiation/ Buy Out	LIFE, Heritage Lottery Fund (HLF), Community Infrastructure Levy (CIL), WREN Biodiversity Fund, S106	Natural England	Peterborough City Council, Landowner(s), Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire

### 3 Air Pollution: impact 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.

<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>3A</b>	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	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

#### Barnack Hills & Holes SAC

H6210# Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*)

### Site location and links

#### Barnack Hills & Holes SAC

Area (ha) **23.27**      Grid reference **TF075046**      [Map link](#)

Local Authorities      City of Peterborough

Site Conservation Objectives      [European Site Conservation Objectives for Barnack Hills & Holes 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.*

### **Barnack Hills & Holes SAC**

*River basin*

[Anglian RBMP](#)

*WFD Management catchment*

Welland

*WFD Waterbody ID (Cycle 2 draft)*

n/a

## Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Barnack Hills & Holes SAC	Barnack Hills & Holes SSSI

National Nature Reserve (NNR)	
Barnack Hills & Holes SAC	Barnack Hills and Holes NNR

Ramsar	
Barnack Hills & Holes SAC	n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Barnack Hills & Holes SAC	n/a

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	24/11/14	

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

