

Site Improvement Plan

Hornsea Mere

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)

UK9006171 Hornsea Mere SPA

Site description

Hornsea Mere is a large, shallow freshwater lake on the western edge of the town of Hornsea in East Yorkshire. It has a surface area of about 130 ha and a mean depth of about 1.2 m. It is situated at about 3.5 m above sea level, and has a catchment area of about 1755 ha. The centre of the mere is 2.1 km from the North Sea, which lies to the east of the site.

The mere is surrounded by areas of fringing swamp, and its catchment includes grassland, woodland, agricultural land and parts of the town of Hornsea. The site hosts gadwall (dabbling duck) and a post-breeding population of mute swan.

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	Pressure	A036(B) Mute swan, A051(NB) Gadwall	Ongoing management of diffuse sources of pollution (especially phosphate)	East Riding of Yorkshire District Council, Environment Agency, Natural England, Yorkshire Water Services Ltd, Yorkshire Wildlife Trust, Landowner(s), Wassand Estate, Estate tenant(s), Householder(s)
2 Siltation	Pressure	A036(B) Mute swan, A051(NB) Gadwall	Ongoing management of sources of sediment from wider catchment	East Riding of Yorkshire District Council, Environment Agency, Natural England, Yorkshire Water Services Ltd, Yorkshire Wildlife Trust, Landowner(s), Wassand Estate, Estate tenant(s)
3 Inappropriate water levels	Pressure	A036(B) Mute swan, A051(NB) Gadwall	Investigate and review water level management. Implement agreed management protocol	East Riding of Yorkshire District Council, Environment Agency, Local Authorities, Natural England, Yorkshire Water Services Ltd, Landowner(s), Wassand Estate, Estate tenant(s)

4 Public
Access/Disturbance

Threat

A036(B) Mute swan, A051(NB) Gadwall

Monitor disturbance levels
and promote sensitive
access through regulation,
interpretation and wardening

Natural England, Wassand
Estate, Boating tenant(s)

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

Increased levels of nutrients in the mere (especially phosphates) could have a negative impact on the water plant community of the mere. A change in the vegetation from pondweeds and other macrophytes to a more algal dominated community could impact upon the SPA birds' food source through a general decline in water plants and associated fauna.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Implement the reviewed (2014) Hornsea Mere Diffuse Water Pollution (DWP) Plan and secure continued NE/EA investment in the delivery of the next stage of actions beyond currently funded actions.	£200,000	2014-20	Diffuse Water Pollution Plan	Environment Agency, Local Authority, Natural England, Higher Level Stewardship (HLS), Water Framework Directive (WFD), Catchment Sensitive Farming (CSF), Yorkshire Water	Natural England	East Riding of Yorkshire District Council, Environment Agency, Yorkshire Water Services Ltd, Yorkshire Wildlife Trust, Landowner(s), Wassand Estate, Estate tenant(s)

<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>
1B	New agri-environment measures to address silt and phosphate pollution from agriculture, using 2013-14 catchment walkover and monitoring data to identify sources of silt, and add capital works to future new agreements to manage supply.	£100,000	2014-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	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>
1C	Engagement with EA, local residents and water company sources to secure investment in Strawberry Gardens first time sewage connection; and elsewhere as required.	£100,000	2014-19	Water Industry Asset Management Plan (AMP): Implement Plan Scheme	AMP process, PR19 (EA Asset Management Plan)	Local partnership	East Riding of Yorkshire District Council, Environment Agency, Natural England, Yorkshire Water Services Ltd, Householder(s)
<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	Acquire data of non-mains septic tanks from Yorkshire Water to review scale of phosphate inputs from urban/rural tanks.	Not yet determined	2014-16	Advice: Negotiation	Not yet determined	Environment Agency	Environment Agency, Natural England, Yorkshire Water Services Ltd, Householder(s)

<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>
1E	Undertake an awareness campaign to address rural and urban catchment septic tank maintenace and mis-connections etc.	£5,000	2014-16	Advice: Education & awareness raising	Environment Agency, Local Authority, Natural England, Higher Level Stewardship (HLS), Water Framework Directive (WFD), Catchment Sensitive Farming (CSF), Yorkshire Water	Environment Agency	Environment Agency, Natural England, Yorkshire Water Services Ltd, Householder(s)
<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>
1F	Once a high level of confidence in reducing phosphate inputs has been achieved, undertake a Lake Restoration plan to consider options for dealing with legacy phosphate in Mere sediments.	£125,000	2016	Lake Restoration Project	EU Life, Natural England, Water Framework Directive (WFD)	Natural England	East Riding of Yorkshire District Council, Environment Agency, Yorkshire Water Services Ltd, Yorkshire Wildlife Trust, Landowner(s), Wassand Estate, Estate tenant(s)

2 Siltation

Siltation load and associated nutrient inputs from urban discharge and agricultural activity are physically smothering macrophytes as well as leading to water chemistry changes, which in turn are altering the aquatic plant communities. This is likely to be having a negative impact on SPA bird food supply. Himalayan balsam is also contributing to this by leaving banks exposed in the winter when it dies back, increasing erosion.

<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	Implement the reviewed (2014) Hornsea Mere Diffuse Water Pollution Plan (DWPP) and secure continued NE/EA investment in the delivery of the next stage of actions beyond currently funded actions.	£200,000	2014-20	Diffuse Water Pollution Plan	Environment Agency, Local Authority, Natural England, Higher Level Stewardship (HLS), Water Framework Directive (WFD), Catchment Sensitive Farming (CSF), Yorkshire Water	Natural England	East Riding of Yorkshire District Council, Environment Agency, Yorkshire Water Services Ltd, Yorkshire Wildlife Trust, Landowner(s), Wassand Estate, Estate tenant(s)
<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	New agri-environment measures to address silt and phosphate pollution from agriculture, using 2013-14 catchment walkover and monitoring data to identify sources of silt, and add capital works to future new agreements to manage supply.	£100,000	2014-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	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>
2C	Awareness raising campaign with targeted landowners (from WFD Funded 2014-15 APEM Catchment Walkover Report and ongoing monitoring) in relation to land management practices which can contribute to sediment load in water courses.	£10,000	2015-20	Advice	Catchment Sensitive Farming (CSF)	Natural England	Landowner(s), Environment Agency (CSF)
<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	Continuation and expansion of Himalayan balsam control surrounding the mere and along feeder watercourses.	£30,000	2014-17	Invasive Control Plan: Invasive Species Control Programme	Environment Agency, Natural England, Higher Level Stewardship (HLS), Water Framework Directive (WFD)	Natural England	East Riding of Yorkshire District Council, Environment Agency, Yorkshire Water Services Ltd, Yorkshire Wildlife Trust, Landowner(s), Wassand Estate, Estate tenant(s)

3 Inappropriate water levels

There is currently no agreed control of the outlet sluice on Stream Dyke, therefore the site is vulnerable to changes in water level management. Inappropriate water levels could impact the ability of SPA birds to access food supply.

<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	Complete the Water Level Management Plan (WLMP) for Hornsea Mere, taking into account multi-user objectives.	£15,000	2015-16	Water Level Management Plan	Environment Agency, Natural England, Water Framework Directive (WFD), East Riding of Yorkshire District Council: Flood risk bid	East Riding of Yorkshire District Council	Local Authorities, Natural England, Yorkshire Water Services Ltd, Landowner(s), Wassand Estate, Estate tenant(s)

<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	Investigate the potential to use smarter water level management to flush phosphate when re-suspended in the water column.	£5,000	2016-17	Investigation / Research / Monitoring	Environment Agency, Natural England, Water Framework Directive (WFD), East Riding of Yorkshire District Council: Flood risk bid	Natural England	Environment Agency, Local Authorities, Yorkshire Water Services Ltd, Landowner(s), Wassand Estate, Estate tenant(s)

4 Public Access/Disturbance

There is a risk of physical disturbance to SPA birds from boating activity or other unmanaged public access.

<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	Help raise awareness of disturbance through better interpretation at main public access point and footpaths. Improved signage, interpretation boards and sanctuary markers on islands and sanctuary buoys.	£10,000	2014-20	Advice: Education & awareness raising	Natural England, Wassand Estate, Yorkshire Wildlife Trust, Boating tenants, Fishing tenants	Natural England	Wassand Estate, Boating tenant(s)

Site details

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

Qualifying features

#UK Special responsibility

Hornsea Mere SPA	A051(NB) <i>Anas strepera</i> : Gadwall
	A038(NB)* <i>Cygnus olor</i> : Mute swan

Site location and links

Hornsea Mere SPA

Area (ha)	231.2	Grid reference	TA188469	Map link
Local Authorities				East Riding of Yorkshire
Site Conservation Objectives				European Site Conservation Objectives for Hornsea Mere SPA
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.

Hornsea Mere SPA

<i>River basin</i>	Humber	Humber RBMP
<i>WFD Management catchment</i>	Hull and East Riding	
<i>WFD Waterbody ID (Cycle 2 draft)</i>	GB104026066620, GB30430244	

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Hornsea Mere SPA	Hornsea Mere SSSI

National Nature Reserve (NNR)	
Hornsea Mere SPA	n/a

Ramsar	
Hornsea Mere SPA	n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Hornsea Mere SPA	n/a

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	06/10/2014	

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