

Site Improvement Plan

Breckland

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)

UK0019865 Breckland SAC

UK9009201 Breckland SPA

Site description

The Breckland SAC and SPA is characterised by an extensive area of grass heath (and some heather heath), large arable fields, and the largest coniferous forest in lowland England. Together, these support over 2000 priority species, many of which are confined to the area, or have their core UK distribution there.

The SPA holds internationally important populations of Stone Curlew, Nightjar and Woodlark. Stone Curlew establishes nests on open ground provided by arable cultivation in the spring, while Woodlark and Nightjar breed in recently felled areas and open heath areas within the conifer plantations. The heaths include the best preserved systems of inland sand dune vegetation, which is in part characterised by the nationally rare grey hair-grass *Corynephorus canescens*, and sand sedge *Carex arenaria*. The CG7 *Festuca ovina* – *Hieracium pilosella* – *Thymus praecox* grassland type is rich in rare species and is more typical of the steppe vegetation associated with central Europe. It can be found in mosaics with heath/acid grassland, giving rise to patterned ground that formed under peri-glacial conditions, and which reflects differences in substrate composition. The dry acidic heath is represented by H1 *Calluna vulgaris* – *Festuca ovina* heath. The open Breckland landscape provides ideal conditions for early successional rare/scarce plants and invertebrates, and supports internationally important populations of Annex 1 grounding nesting birds, namely stone curlew, woodlark and nightjar. Aquifer-fed fluctuating meres and alluvial forests dominated by *Alnus glutinosa* and *Fraxinus excelsior* are also features of the SAC. The meres are restricted to the Norfolk Breckland. They support unusual and highly characteristic plant and animal communities associated with periodic inundation and drying out, as part of the natural cycle. The meres, together with a range of other water bodies, provide breeding habitat for great crested newt *Triturus cristatus*.

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 Lack of ground disturbance	Pressure	A133(B) Stone curlew, A246(B) Woodlark, H2330 Open grassland with grey-hair grass and common bent grass of inland dunes, H4030 European dry heaths, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Create/maintain bare ground through agri-environment agreements and appropriate rabbit management	Environment Agency, Forestry Commission, Ministry of Defence (MoD), Natural England, Norfolk Wildlife Trust, RSPB, Suffolk Wildlife Trust, Landowner(s), University of East Anglia (UEA)
2 Undergrazing	Pressure	A133(B) Stone curlew, A246(B) Woodlark, H4030 European dry heaths, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Increase/maintain intensity of grazing and implement appropriate regimes through agri-environment/advice	Natural England, Norfolk Wildlife Trust, RSPB, Suffolk Wildlife Trust

3 Forestry and woodland management	Threat	A224(B) European nightjar, A246(B) Woodlark	Increase woodlark and nightjar density	Forest Enterprise, Ministry of Defence (MoD), Natural England, RSPB, British Trust for Ornithology (BTO), University of East Anglia (UEA)
4 Water Pollution	Pressure	H3150 Naturally nutrient-rich lakes or lochs which are often dominated by pondweed	Reduce nutrients through agri-environment/Diffuse Water Pollution Plans, and identify actions for the river basin management plan	Environment Agency, Natural England
5 Changes in species distributions	Pressure/ Threat	H2330 Open grassland with grey-hair grass and common bent grass of inland dunes, H4030 European dry heaths, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Implement monitoring, habitat management and recovery programmes for rare/scarce plants	Forestry Commission, Ministry of Defence (MoD), Natural England, Norfolk Wildlife Trust, Suffolk Wildlife Trust, Landowner(s), Plantlife
6 Changes in species distributions	Pressure	H2330 Open grassland with grey-hair grass and common bent grass of inland dunes, H4030 European dry heaths, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Implement habitat management and recovery programmes for lichens through agri-environment	Ministry of Defence (MoD), Natural England, Landowner(s)
7 Stone curlew monitoring and intervention	Threat	A133(B) Stone curlew	Ensure that arable nesting stone curlew are productive through monitoring and intervention	Natural England, RSPB, Landowner/occupier
8 Planning Permission: general	Pressure	A133(B) Stone curlew, A224(B) European nightjar, A246(B) Woodlark	Develop evidence to assist with determination of planning applications to prevent unsustainable development impacting SPA species	Breckland District Council, King's Lynn And West Norfolk Borough Council, Natural England, RSPB, Suffolk County Council
9 Monitoring	Threat	A133(B) Stone curlew	Investigate/secure funding for the continued appropriate monitoring of SPA species	Forestry Commission, Local Authority(ies), Ministry of Defence (MoD), Natural England, RSPB, Landowner(s)

10	Air Pollution: impact of atmospheric nitrogen deposition	Threat	A133(B) Stone curlew, A246(B) Woodlark, H2330 Open grassland with grey-hair grass and common bent grass of inland dunes, H4030 European dry heaths, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Further investigate potential nitrogen impacts on the SAC/SPA	Natural England
11	Public Access/Disturbance	Threat	A224(B) European nightjar, A246(B) Woodlark	Investigate impacts of recreational disturbance on SPA species and address visitor impacts through management	Forestry Commission, Ministry of Defence (MoD), Natural England
12	Climate change	Threat	A133(B) Stone curlew, A246(B) Woodlark, H2330 Open grassland with grey-hair grass and common bent grass of inland dunes, H4030 European dry heaths, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Investigate the potential effects of climate change on vegetation/species	Natural England
13	Changes in species distributions	Pressure	H4030 European dry heaths	Investigate heather die-back to determine the causes, and identify potential remedies	Natural England, Landowner(s)
14	Inappropriate scrub control	Pressure	A133(B) Stone curlew, A246(B) Woodlark, H4030 European dry heaths, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Large scale tree/scrub removal funded through agri-environment agreements	Forestry Commission, Natural England
15	Inappropriate management practices	Pressure	A133(B) Stone curlew, A246(B) Woodlark, H4030 European dry heaths, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Review the site management of heather through agri-environment agreements	Natural England
16	Habitat fragmentation	Threat	H2330 Open grassland with grey-hair grass and common bent grass of inland dunes, H4030 European dry heaths, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Investigate options to increase habitat connectivity across the landscape	Forestry Commission, Ministry of Defence (MoD), Natural England, Norfolk Wildlife Trust, Suffolk Wildlife Trust, Landowner(s), Plantlife

17 Inappropriate weed control	Pressure/ Threat	A133(B) Stone curlew, A246(B) Woodlark, H2330 Open grassland with grey-hair grass and common bent grass of inland dunes, H4030 European dry heaths, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Investigate effective control methods for wood small-reed Calamagrostis epigejos.	Natural England
18 Inappropriate pest control	Threat	A133(B) Stone curlew, A224(B) European nightjar, A246(B) Woodlark	Investigate the impacts of predation on breeding success of Woodlark and Nightjar	Forestry Commission, Natural England, RSPB
19 Changes in species distributions	Pressure	H2330 Open grassland with grey-hair grass and common bent grass of inland dunes	Investigate the decline of grey hair-grass, and implement management recommendations	Natural England, Suffolk Wildlife Trust, Defence Infrastructure Organisation (DIO)
20 Inappropriate cutting/mowing	Pressure	H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Introduction of an optimal mowing/cutting regime funded through agri-environment agreement	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 Lack of ground disturbance

Insufficient creation and/or maintenance of bare ground and early successional vegetation communities (dry heath, dune and calcareous grassland). This affects both SAC habitat and its characteristic invertebrate species, and SPA species (Stone curlew, Woodlark).

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Create/maintain areas of bare ground through rabbit activity (grazing and disturbance) and/or a range of intermittent physical disturbance techniques, plus other measures as part of site management plans.	£500,000	2015-20	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Rural Development Programme (RDPE)	Natural England	Environment Agency, Forestry Commission, RSPB
1B	Increase the extent of bare ground by investigating the decline in wild rabbits, best practice methods to expand existing populations and reintroduction of rabbits into areas where populations have disappeared.	£158,000	2015-20	Investigation / Research / Monitoring	LIFE, RSPB	Local partnership	Ministry of Defence (MoD), Natural England, Norfolk Wildlife Trust, University of East Anglia (UEA)

<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	Assess the current extent of bare ground maintained by rabbit activity and/or mechanical interventions, and compare to SSSI and/or HLS bare ground targets.	£10,000	2015 onwards	Investigation / Research / Monitoring	Not yet determined	Natural England	Norfolk Wildlife Trust, RSPB, Suffolk Wildlife Trust
<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	Increase the area of bare ground by implementing rabbit reintroductions, or measures to facilitate their expansion and/or density.	£500,000	2020-30	Habitat creation / restoration strategy: Habitat restoration	LIFE	Natural England	Forestry Commission, Ministry of Defence (MoD)

2 Undergrazing

Undergrazing, both by domestic livestock and wild rabbits affects the majority of grassland & heathland sites throughout the SPA/SAC, which puts at risk the quality of SAC habitats and their characteristic species, including SPA bird species.

<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	Increase/maintain the intensity of grazing by both domestic livestock and wild rabbits to create open, tightly grazed swards.	£250,000	2015-20	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Natural England, Rural Development Programme (RDPE)	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>
2B	Implement appropriate grazing regimes of domestic livestock.	Not yet determined	2014-20	Advice: Negotiation	Natural England	Natural England	Norfolk Wildlife Trust, RSPB, Suffolk Wildlife Trust

3 Forestry and woodland management

There has been a significant decline in the numbers of woodlark and nightjar since the SPA classification. This can be largely explained by the loss of available habitat through the natural cycle of timber harvesting. For woodlark there is also some decline in habitat quality.

<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	Investigate, and then implement methods of forest management to increase Woodlark and Nightjar density.	£75,000	2014-17	Investigation / Research / Monitoring	LIFE	Forest Enterprise: East Anglia	Ministry of Defence (MoD), Natural England, RSPB, British Trust for Ornithology (BTO), University of East Anglia (UEA)

4 Water Pollution

There has been a considerable loss of aquatic species in Ringmere and high nutrient levels recorded in previous water analysis suggest nutrients are impacting the mere. Langmere too shows signs of nutrient enrichment.

<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	Review the findings from the investigation into elevated nutrient levels in the meres to ascertain whether a programme of site specific management actions is required to remedy adverse condition.	£10,000	2014-15	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a
4B	Review the findings from the investigation into elevated nutrient levels in the meres to ascertain whether a catchment scale approach is needed to remedy adverse condition.	Costs associated with Consultant's fees	2014-15	Investigation / Research / Monitoring	Water Framework Directive (WFD), Catchment Sensitive Farming (CSF)	Natural England	Environment Agency

<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>
4C	Review the findings from the investigation into elevated nutrient levels in the meres to ascertain whether the conservation objective for Total Phosphorus needs to be amended.	Not yet determined	2014-15	Investigation / Research / Monitoring	Not yet determined	Environment Agency	Natural England

5 Changes in species distributions

There are significant declines of rare and scarce vascular plant species that are part of SAC habitat.

<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>
5A	Implement comprehensive monitoring of rare, scarce vascular plants in Breckland SAC.	£350,000	2014-50	Investigation / Research / Monitoring	Not yet determined	Natural England	Forestry Commission, Ministry of Defence (MoD), Norfolk Wildlife Trust, Suffolk Wildlife Trust, Landowner(s), Plantlife

<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>
5B	Implement habitat management and species recovery programmes (vascular plants), including costs to investigate the causes of decline and identify appropriate remedies.	£350,000	2015-30	Mechanism not identified / develop mechanism	Not yet determined	Natural England	Forestry Commission, Ministry of Defence (MoD), Norfolk Wildlife Trust, Suffolk Wildlife Trust, Landowner(s), Plantlife

6 Changes in species distributions

Characteristic rare and scarce lichens of calcareous grass heath have largely disappeared from their historic sites, and lichen heath in general is in decline more broadly across heaths and grasslands. This affects the quality of the SAC habitats.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
6A	Implement habitat management and species recovery programmes (rare lichens), including costs to investigate the causes of decline and identify appropriate remedies.	£150,000	2015-30	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Rural Development Programme (RDPE)	Natural England	Ministry of Defence (MoD), Landowner(s)

7 Stone curlew monitoring and intervention

Stone Curlew have adapted to breed on arable farmland. Nests and chicks are vulnerable to some farming operations at specific times, especially because they are well camouflaged and chicks tend to stay motionless when disturbed. Breeding success is improved by monitoring and intervention: working with farmers to locate nests and temporarily remove chicks during farming operations. Provision of nesting plots also contributes to maintaining and enhancing the population. These actions require continued collaboration and funding.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
7A	Implement land management across farmland to provide an increased area of safe nesting habitat for stone curlew.	£800,000	2016-25	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	RSPB, Landowner/occupier
7B	Ensure that arable nesting stone curlew are located and protected during farming operations.	Not yet determined	2016-25	Mechanism not identified / develop mechanism	Not yet determined	Natural England	RSPB, Landowner/occupier

8 Planning Permission: general

Development, especially for housing, roads and solar farms can impact on SPA species (Stone curlew, Woodlark, Nightjar). Detailed, robust information submitted by applicants is required to enable Competent Authorities and statutory consultees to assess planning applications both for their impact and mitigation. Co-ordination of baseline information for European sites and features from partners is also needed to ensure a full assessment can be made.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
8A	Secure adequate evidence to assist with the assessment of planning applications both for their impact and mitigation. Through discussions with stakeholders, use strategic planning to avoid or mitigate effects on SPA bird species, in a coordinated manner.	Staff time	2015-16	Mechanism not identified / develop mechanism	Natural England	Natural England	Breckland District Council, King's Lynn And West Norfolk Borough Council, RSPB, Suffolk County Council

9 Monitoring

Continued and expanded monitoring of SPA species and their habitat is essential to targeting appropriate management and identify the impacts of, and potential mitigation for, development. There is insufficient certainty of funding of monitoring, together with incomplete coverage of existing monitoring effort.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
9A	Explore and secure funding for continued appropriate monitoring of SPA species and their habitat.	£100,000	2014-20	Investigation / Research / Monitoring	Not yet determined	Natural England	Forestry Commission, Local Authority(ies), Ministry of Defence (MoD), RSPB, Landowner(s)

10 Air Pollution: impact of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads for ecosystem protection and hence there is a risk of harmful effects.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
10A	Further investigate potential atmospheric nitrogen impacts on the site, based on the application of guidance from Chief Scientist's Group: Nitrogen Task and Finish Group.	Not yet determined	2014-17	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

11 Public Access/Disturbance

Recreational and other activities have the potential to impact both SAC and SPA features. Disturbance does not currently appear to be significantly impacting the bird populations, but the impacts of increased recreational activity is uncertain. Recreational growth in Thetford Forest may impact on woodlark and nightjar. The forest is a major recreational attraction in the region. Similarly, military training activities have the potential to impact ground nesting birds, especially stone curlew, but the extent of this impact is unclear. SAC features may be affected through eutrophication (dog fouling, unauthorised fires) and disturbance of soils, in particular on commons and heaths.

<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>
11A	Investigate the impact of recreational disturbance on woodlark and nightjar in Thetford Forest from an increase in visitor use.	£60,000	2014-17	Investigation / Research / Monitoring	Not yet determined	Forestry Commission	Natural England
11B	Investigate the impact of military training activities on ground nesting birds.	£50,000	2017-20	Investigation / Research / Monitoring	Not yet determined	Natural England	Ministry of Defence (MoD)
11C	Options appraisal of visitor access management at Heaths and Commons to reduce disturbance and other impacts. Integration of access/habitat management to form part of a detailed management plan.	£15,000	2015-20	Advice: Access Strategy	Natural England, Rural Development Programme (RDPE)	Natural England	n/a

12 Climate change

Perceived effects of climate change could result in impacts on parched grassland, heath and dune communities, as well as component rare species.

<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>
12A	Review likely climate change impacts on both aquatic and terrestrial habitats, and characteristic and rare species, and identify appropriate adaptation actions.	Not yet determined	2015-21	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

13 Changes in species distributions

Heather appears to be dying back on a number of heather heaths (WHH, BH, STA), which is not currently explained by management, age cycle or known pathogens.

<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>
13A	Investigate the apparent die-back of heather to determine causes, and identify potential remedies.	£5,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

14 Inappropriate scrub control

Excess growth of scrub and trees is affecting open heath and calcareous grasslands. Payment rates for scrub clearance in HLS are too low, whilst availability of capital funds for additional HLS capital works plans is too limited.

<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>
14A	Increase/maintain the extent of open habitats by large-scale removal of trees/scrub, and follow-up management.	£1,250,000	2015-20	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Natural England, Rural Development Programme (RDPE)	Natural England	Forestry Commission

15 Inappropriate management practices

There is an over-emphasis in site management on heather (especially in its mature phase), as opposed to heathland community, especially the early successional phases, and the dynamism between heathland and grassland communities.

<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>
15A	Review, and amend where necessary, current HLS agreements and site management plans, to shift emphasis from heather towards more representative Breckland heath communities, and implement revised management practices	Not yet determined	2014-20	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Rural Development Programme (RDPE)	Natural England	n/a

16 Habitat fragmentation

Some heaths are relatively small and the connectivity between these and the larger heaths too, is poor. In some cases the individual heaths are physically isolated and the landscape in between is hostile to species dispersal.

<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>
16A	Investigate options to increase habitat connectivity across the landscape, including measures to improve movement of plants and animals via landscape/ecological processes.	£10,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	Forestry Commission, Ministry of Defence (MoD), Natural England
16B	Increase open habitats within Thetford Forest, and increase connectivity through the Forest between adjacent heaths.	£387,000	2015-20	Habitat creation / restoration strategy: Improvements to habitat connectivity	LIFE, Landfill tax, Defra (Biodiversity 2020)	Forestry Commission	Natural England, Norfolk Wildlife Trust

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
16C	Implement the findings from the investigation to increase connectivity across the landscape.	£250,000	2016 onwards	Mechanism not identified / develop mechanism	Not yet determined	Natural England	Norfolk Wildlife Trust, RSPB, Suffolk Wildlife Trust, Plantlife

17 Inappropriate weed control

Invasion of dry heath, dune and calcareous grassland by *Calamagrostis epigejos*.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
17A	Investigate effective control methods for wood small-reed <i>Calamagrostis epigejos</i> .	£50,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

18 Inappropriate pest control

Predation on ground-nesting SPA species, especially Stone curlew and Woodlark.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
18A	Investigate the impacts of predation on the breeding success of Woodlark and Nightjar.	£60,000	2017-20	Investigation / Research / Monitoring	Not yet determined	Forestry Commission	Natural England, RSPB

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
18B	Investigate the impacts of predation on the breeding success of Stone curlew.	£60,000	2017-20	Investigation / Research / Monitoring	Not yet determined	Natural England	RSPB

19 Changes in species distributions

Grey hair-grass *Corynephorus canescens* has been lost from one of the two component sites (WWC) where it has previously occurred, and declined in the other (RAFL).

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
19A	Investigate decline of grey hair-grass <i>Corynephorus canescens</i> in its two Breckland sites, and implement management recommendations.	£20,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	Suffolk Wildlife Trust, Defence Infrastructure Organisation (DIO)

20 Inappropriate cutting/mowing

Chalk grassland communities on Barnham Cross Common have declined as a result of a sub-optimal cutting regime.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
20A	Improve the condition of the grass heath communities at Barnham Cross Common, through the introduction of an optimal mowing/cutting regime.	£15,000 over 10 years	2015	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Rural Development Programme (RDPE)	Natural England	n/a

Site details

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

Qualifying features

#UK Special responsibility

Breckland SAC

H91E0# Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)

S1166 *Triturus cristatus*: Great crested newt

H2330 Inland dunes with open *Corynephorus* and *Agrostis* grasslands

H3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation

H4030 European dry heaths

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

Breckland SPA

A224(B) *Caprimulgus europaeus*: European nightjar

A246(B) *Lullula arborea*: Woodlark

A133(B) *Burhinus oedicephalus*: Stone-curlew

Site location and links

Breckland SAC

Area (ha) **7548.06** Grid reference **TL862948** [Map link](#)

Local Authorities Norfolk; Suffolk

Site Conservation Objectives [European Site Conservation Objectives for Breckland SAC](#)

European Marine Site conservation advice [n/a](#)

Regulation 33/35 Package [n/a](#)

Marine Management Organisation site plan [n/a](#)

Breckland SPA

Area (ha) **39433.66**

Grid reference **TL873938**

[Map link](#)

Local Authorities

Suffolk; Norfolk

Site Conservation Objectives

[European Site Conservation Objectives for Breckland 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.

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

Breckland SAC

River basin	Anglian RBMP
WFD Management catchment	Cam and Ely Ouse (including South Level)
WFD Waterbody ID (Cycle 2 draft)	GB105033043051, GB105033043400, GB105033043450, GB105033047630, GB105033047840, GB30537309
Locally revised Conservation Objectives	
Additional information on locally revised Conservation Objectives	n/a
EA/ NE agreed RBMP lake SAC targets	Proposed total phosphorus targets for Lake Natura 2000 Protected Area Special Areas of Conservation for the updated river basin management plan consultation

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	n/a
River Restoration Plan document	n/a

Breckland SPA

River basin	Anglian RBMP
WFD Management catchment	Cam and Ely Ouse (including South Level)

WFD Waterbody ID (Cycle 2 draft) GB105033043000, GB105033043010, GB105033043051, GB105033043070, GB105033043190, GB105033043400, GB105033043450, GB105033047630, GB105033047840, GB105033047870, GB105033047890, GB30537309

Locally revised Conservation Objectives

Additional information on locally revised Conservation Objectives [n/a](#)

EA/ NE agreed RBMP lake SAC targets [n/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 [n/a](#)

River Restoration Plan document [n/a](#)

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)

Breckland SAC

Weeting Heath SSSI
Stanford Training Area SSSI
Breckland Forest SSSI
Breckland Farmland SSSI
RAF Lakenheath SSSI
Cranwich Camp SSSI
Lakenheath Warren SSSI
Foxhole Heath, Eriswell SSSI
Thetford Heath SSSI
Bridgham & Brettenham Heaths SSSI
Grime's Graves SSSI
Berner's Heath, Icklingham SSSI
Weather & Horn Heaths, Eriswell SSSI
Wangford Warren & Carr SSSI
East Wretham Heath SSSI
Gooderstone Warren SSSI
Field Barn Heaths, Hilborough SSSI
Cavenham-Icklingham Heaths SSSI
Barnhamcross Common SSSI
Thetford Golf Course & Marsh SSSI
Deadman's Grave, Icklingham SSSI

Breckland SPA

Cavenham-Icklingham Heaths SSSI
Little Heath, Barnham SSSI
Stanford Training Area SSSI
Thetford Golf Course & Marsh SSSI

Barnham Heath SSSI
Breckland Farmland SSSI
Cranwich Camp SSSI
Lakenheath Warren SSSI
Foxhole Heath, Eriswell SSSI
Thetford Heath SSSI
Deadman's Grave, Icklingham SSSI
Bridgham & Brettenham Heaths SSSI
Weeting Heath SSSI
Rex Graham Reserve SSSI
Grime's Graves SSSI
Barnhamcross Common SSSI
Berner's Heath, Icklingham SSSI
Breckland Forest SSSI
How Hill Track SSSI
West Stow Heath SSSI
Weather & Horn Heaths, Eriswell SSSI
Wangford Warren & Carr SSSI
East Wretham Heath SSSI
Cranberry Rough, Hockham SSSI
Gooderstone Warren SSSI
Eriswell Low Warren SSSI
Field Barn Heaths, Hilborough SSSI
Old Bodney Camp SSSI
Foulden Common SSSI

National Nature Reserve (NNR)

Breckland SAC

Brettenham Heath NNR

Breckland SPA	Cavenham Heath NNR Thetford Heath NNR Weeting Heath NNR Brettenham Heath NNR Cavenham Heath NNR Thetford Heath NNR Weeting Heath NNR
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Ramsar

Breckland SAC	n/a
Breckland SPA	n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)

Breckland SAC	Breckland SPA
Breckland SPA	Rex Graham Reserve SAC Norfolk Valley Fens SAC Breckland SAC

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	21/01/2015	

www.naturalengland.org.uk/ipens2000

