

# Site Improvement Plan

## Lee Valley

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)**

**UK9012111 Lee Valley SPA**

## Site description

The Lee Valley SPA comprises a series of embanked water supply reservoirs, sewage treatment lagoons and former gravel pits that display a range of man-made and semi-natural wetland and valley bottom habitats. The site is important for overwintering bittern as well as an internationally important population of two duck species.

## 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	Threat	A021(NB) Bittern, A051(NB) Gadwall, A056(NB) Shoveler	Investigate and agree appropriate water quality	Environment Agency, Natural England, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)
2 Hydrological changes	Threat	A021(NB) Bittern, A051(NB) Gadwall, A056(NB) Shoveler	Investigate and agree appropriate water levels	Natural England, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)
3 Public Access/Disturbance	Threat	A021(NB) Bittern, A051(NB) Gadwall, A056(NB) Shoveler	Investigate recreational pressure priority areas and agree management measures	Environment Agency, Hertfordshire and Middlesex Wildlife Trust, Natural England, RSPB, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)
4 Inappropriate scrub control	Threat	A021(NB) Bittern, A051(NB) Gadwall, A056(NB) Shoveler	Manage scrub to required levels to maintain/restore habitat	Environment Agency, Hertfordshire and Middlesex Wildlife Trust, Natural England, RSPB, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)

5 Fisheries: Fish stocking	Threat	A021(NB) Bittern, A051(NB) Gadwall, A056(NB) Shoveler	Investigate and agree appropriate fish stocking	Environment Agency, Natural England, RSPB, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)
6 Invasive species	Threat	A021(NB) Bittern, A051(NB) Gadwall, A056(NB) Shoveler	Investigate and agree appropriate management response	Environment Agency, Hertfordshire and Middlesex Wildlife Trust, Natural England, RSPB, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)
7 Inappropriate cutting/mowing	Threat	A021(NB) Bittern	Manage reed beds for bitterns	Environment Agency, Hertfordshire and Middlesex Wildlife Trust, Natural England, RSPB, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)
8 Air Pollution: risk of atmospheric nitrogen deposition	Threat	A021(NB) Bittern	Investigate the potential impacts of air pollution	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 Water Pollution

The vegetation and invertebrates provide food for the ducks, while fish provide food for the bitterns; and the habitat mosaic needs to vary from clear open water with abundant aquatic vegetation to moderately eutrophic conditions. Changes in water quality need to be managed to prevent loss of suitable habitat and food sources.

<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>1A</b>	Define the appropriate water quality standards for significant water bodies to inform management of changes in water quality.	Not yet determined	2015-17	Investigation / Research / Monitoring	Not yet determined	Environment Agency	Natural England, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)
<b>1B</b>	Agree water quality management for significant water bodies with key stakeholders.	Not yet determined	2017-29	Partnership agreement	Heritage Lottery Fund (HLF)	Environment Agency	Natural England, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)
<b>1C</b>	Develop and implement a Diffuse Water Pollution Plan	Not yet determined	2017-20	Diffuse Water Pollution Plan	Heritage Lottery Fund (HLF)	Environment Agency	Natural England, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)

## 2 Hydrological changes

Reservoir levels linked to operational requirements and all water bodies subject to natural fluctuations accounting for abstraction and climatic change.

<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>2A</b>	Define more clearly the water level requirements for the habitats supporting the SPA bird features.	Not yet determined	2015-17	Investigation / Research / Monitoring	Not yet determined	Natural England	Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)
<b>2B</b>	As a follow up to action 2A, agree the necessary water level management with key stakeholders for significant water bodies.	Not yet determined	2017-20	Water Level Management Plan	Heritage Lottery Fund (HLF)	Natural England	Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)

## 3 Public Access/Disturbance

Areas of the SPA are subject to a range of recreational pressures including watersports, angling and dog walking. This has the potential to affect SPA populations directly or indirectly.

<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>	Investigate whether there is a need for change to access management.	Not yet determined	2015-18	Investigation / Research / Monitoring	Not yet determined	Lee Valley Regional Park Authority (LVRPA)	Environment Agency, Hertfordshire and Middlesex Wildlife Trust, Natural England, RSPB, Thames Water Utilities Ltd

<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>3B</b>	Agree appropriate management measures with stakeholders to align with best practice.	Not yet determined	2018-20	Partnership agreement	Heritage Lottery Fund (HLF)	Lee Valley Regional Park Authority (LVRPA)	Environment Agency, Hertfordshire and Middlesex Wildlife Trust, Natural England, RSPB, Thames Water Utilities Ltd

#### 4 Inappropriate scrub control

The reedbed habitats, muddy fringes, and bankside all provide habitat as part of the mosaic for the SPA birds. Scrub control is necessary to ensure these habitats are maintained.

<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>4A</b>	Secure resources to target management delivery.	Not yet determined	2015-20	Habitat creation / restoration strategy: Habitat restoration	Heritage Lottery Fund (HLF)	Lee Valley Regional Park Authority (LVRPA)	Environment Agency, Hertfordshire and Middlesex Wildlife Trust, Natural England, RSPB, Thames Water Utilities Ltd

#### 5 Fisheries: Fish stocking

Fish population and species composition needs to be appropriate to ensure suitable habitats including food resource and water quality are maintained for 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>
<b>5A</b>	Define the appropriate fish community targets for significant water bodies.	Not yet determined	2015-18	Investigation / Research / Monitoring	Not yet determined	Environment Agency	Natural England, RSPB, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)

<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>5B</b>	Action a plan to agree necessary fisheries management for significant water bodies.	Not yet determined	2018-20	Partnership agreement	Heritage Lottery Fund (HLF)	Environment Agency	Natural England, Thames Water Utilities Ltd

## 6 Invasive species

*Azolla* and/or invasive aquatic blanket weeds will adversely affect aquatic habitat (food sources).

<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>6A</b>	Review and update management control of invasive aquatic plant species, and agree regular review process. This needs a more strategic approach that is more planned and less reactive to outbreaks.	Not yet determined	2015-17	Investigation / Research / Monitoring	Not yet determined	Environment Agency	Hertfordshire and Middlesex Wildlife Trust, Natural England, RSPB, Thames Water Utilities Ltd, Lee Valley Regional Park Authority (LVRPA)

## 7 Inappropriate cutting/mowing

The reedbed requires rotational management for bittern. This is dependent upon funding availability.

<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>7A</b>	Secure resources to target management delivery.	Not yet determined	2015-20	Habitat creation / restoration strategy: Habitat restoration	Heritage Lottery Fund (HLF)	Lee Valley Regional Park Authority (LVRPA)	Environment Agency, Hertfordshire and Middlesex Wildlife Trust, Natural England, RSPB, Thames Water Utilities Ltd

## 8 Air Pollution: risk of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads.

<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>8A</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	2017	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a



## Site details

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

### Qualifying features

#UK Special responsibility

<b>Lee Valley SPA</b>	A021(NB) <i>Botaurus stellaris</i> : Great bittern
	A051(NB) <i>Anas strepera</i> : Gadwall
	A056(NB) <i>Anas clypeata</i> : Northern shoveler

### Site location and links

#### Lee Valley SPA

Area (ha) <b>447.87</b>	Grid reference <b>TQ351887</b>	<a href="#">Map link</a>
Local Authorities	Essex; Greater London; Hertfordshire	
Site Conservation Objectives	<a href="#">European Site Conservation Objectives for Lee Valley SPA</a>	
European Marine Site conservation advice	<a href="#">n/a</a>	
Regulation 33/35 Package	<a href="#">n/a</a>	
Marine Management Organisation site plan	<a href="#">n/a</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.*

### Lee Valley SPA

*River basin*

[Thames RBMP](#)

*WFD Management catchment*

London

*WFD Waterbody ID (Cycle 2 draft)*

GB106038033200, GB30641193, GB30641198, GB30641274, GB30641313, GB30641865, GB30641884, GB30641900, GB30641922, GB30641924, GB30641939, GB30641956

## Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Lee Valley SPA	Amwell Quarry SSSI Turnford & Cheshunt Pits SSSI Rye Meads SSSI Walthamstow Reservoirs SSSI
National Nature Reserve (NNR)	
Lee Valley SPA	n/a
Ramsar	
Lee Valley SPA	Lee Valley
Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Lee Valley SPA	n/a

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	18/12/2014	

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

