

Site Improvement Plan

Windsor Forest and Great Park

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)

UK0012586 Windsor Forest & Great Park SAC

Site description

Windsor represents old acidophilous oak woods (H9190) in the south-eastern part of its UK range. It has the largest number of veteran oaks *Quercus* spp. in Britain (and possibly in Europe), a consequence of its long continuity of management. Windsor Forest is listed as the most important site in the UK for fauna associated with decaying timber on ancient trees (oak spp, beech, and other species of tree). It is of importance for its range and diversity of saproxylic invertebrates, including many rare species (e.g. the beetle *Lacon querceus*). The SAC is thought to support the largest of the known populations in the UK of European important Violet click beetle *Limoniscus violaceus*. It is also recognised as having rich fungal assemblages. Atlantic acidophilous beech forest habitat (H9120) is present at the site and supports many of the important invertebrate and fungi assemblage.

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 Forestry and woodland management	Pressure/Threat	H9120 Beech forests on acid soils, S1079 Violet click beetle	Investigate and implement management measures to promote veteran beech tree habitat	Crown Estate (Rural), Natural England, Windsor and Maidenhead Royal Borough Council, University(ies), Research institute, Landowner/occupier, Buglife, Ancient Tree Forum
2 Forestry and woodland management	Pressure/Threat	H9190 Dry oak-dominated woodland	Investigate and implement management measures to promote veteran oak habitat	Crown Estate (Rural)
3 Invasive species	Threat	H9190 Dry oak-dominated woodland, S1079 Violet click beetle	Maintain efforts to control known invasive/pest plant species.	Crown Estate (Rural), Forestry Commission, Woodland Trust
4 Disease	Threat	H9190 Dry oak-dominated woodland	Survey for tree diseases	Forestry Commission, Woodland Trust
5 Air Pollution: impact of atmospheric nitrogen deposition	Pressure	H9120 Beech forests on acid soils, H9190 Dry oak-dominated woodland	Establish a Site Nitrogen Action Plan	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 Forestry and woodland management

The loss of ancient/veteran beech trees due to gaps in age classes results in loss of the beech forest habitat and reduced habitat for the violet click beetle. There is a lack of understanding of current veteran tree and microhabitat resource, as well as the distribution of violet click beetles, and methods to ensure provision of its habitat requirements. This makes it difficult to establish appropriate management measures (such as the planting or 'promotion' of trees in the right locations).

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Prolong the life of existing veteran beech trees.	£10,000	2015-20	Conservation Enhancement Scheme (CES)	Conservation Enhancement Scheme (CES)	Crown Estate (Rural)	n/a
Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1B	Update assessments of veteran tree health using revised veteran tree assessment protocols - establish current distribution and condition of ancient / veteran beech population and the rate of decline/loss. Include 'audit' of current provision of key microhabitats required to maintain the fungi and invertebrate assemblages, including fallen decaying wood habitats.	£5,000	2015-16	Investigation / Research / Monitoring	Not yet determined	Crown Estate (Rural)	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	Plant or 'promote' future veteran beech tree population, and management/creation of new pollards where appropriate.	£10,000	2015-20	Conservation Enhancement Scheme (CES)	Conservation Enhancement Scheme (CES)	Crown Estate (Rural)	n/a
1D	Research to help develop a 'smart' action plan for sustainable <i>Limoniscus</i> habitat provision.	£20,000	2015-20	Species Recovery Programme	Not yet determined	Natural England	Buglife, Ancient Tree Forum
1E	Research to improve techniques for survey and monitoring of <i>Limoniscus</i> , and other notable species.	£50,000	2015-20	Investigation / Research / Monitoring	Research project	Natural England	University(ies), Research institute, Buglife
1F	Survey for <i>Limoniscus</i> across the site, to get a better understanding of its Windsor distribution and preferred habitat	£20,000	2015-20	Investigation / Research / Monitoring	Natural England	Natural England	Buglife

<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>
1G	Reduce habitat fragmentation. Landscape scale project to maintain/restore ancient tree populations and improve linkage with other supporting habitats in wider area around Windsor. Education, awareness and strategic action plan with key partners.	£10,000	2015-20	Habitat creation / restoration strategy: Improvements to habitat connectivity	Local Authority, Landowner(s), Woodland Trust(s)	Natural England	Windsor and Maidenhead Royal Borough Council, Woodland Trust
1H	Restore additional areas as extensively managed /grazed wood pasture landscape.	Not yet determined	2015-20	Non-Natural England funded site management plan	New Environmental Land Management Scheme (NELMS)	Crown Estate (Rural)	Landowner/occupier
1I	Reduce habitat fragmentation. Landscape scale project to maintain/restore ancient tree populations and improve linkage with other supporting habitats in wider area around Windsor. Education, awareness and strategic action plan with key partners.	£10,000	2015-20	Habitat creation / restoration strategy: Improvements to habitat connectivity	Local Authority, Landowner(s), Woodland Trust(s)	Natural England	Windsor and Maidenhead Royal Borough Council, Woodland Trust
1J	Restore additional areas as extensively managed /grazed wood pasture landscape.	Not yet determined	2015-20	Non-Natural England funded site management plan	New Environmental Land Management Scheme (NELMS)	Crown Estate (Rural)	Landowner/occupier

2 Forestry and woodland management

The loss of ancient/veteran oak trees, and associated reduction in the abundance and diversity of veteran tree micro habitats, due to gaps in age classes has implications for Old acidophilous oak woods habitat and associated flora (inc fungi) and fauna.

<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	Prolong the life of existing veteran oak and other native or relevant tree species.	£10,000	2015-20	Conservation Enhancement Scheme (CES)	Conservation Enhancement Scheme (CES)	Crown Estate (Rural)	n/a
2B	Update assessments of veteran tree health using revised veteran tree assessment protocols - establish current distribution and condition of ancient / veteran oak and other native or relevant tree populations and the rate of decline/loss. Include 'audit' of current provision of key microhabitats required to maintain the fungi and invertebrate assemblages, including fallen decaying wood habitats.	£10,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Crown Estate (Rural)	n/a
2C	Plant or 'promote' future veteran oak and other native or relevant tree populations, and management/creation of new pollards where appropriate.	£10,000	2015-20	Conservation Enhancement Scheme (CES)	Conservation Enhancement Scheme (CES)	Crown Estate (Rural)	n/a

3 Invasive species

Oak processionary moth is widespread in south west London and is present within 20 miles of the site. If oak processionary moth colonises the site it could accelerate loss of the ancient oak population and/or cause serious management problems. Turkey oak is a significant threat to acorn viability and hence the natural regeneration potential of native oak. Rhododendron represents a threat to scrub /grassland /flower rich supporting habitats of saproxylic 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>
3A	Surveillance for oak processionary moth and preparation of an agreed strategy for when it is found at Windsor.	£2,000	2015-20	Invasive Control Plan: Invasive Species Control Programme	Defra	Forestry Commission	Woodland Trust
3B	Eradicate Turkey oak.	£25,000	2015-20	Conservation Enhancement Scheme (CES)	Conservation Enhancement Scheme (CES)	Crown Estate (Rural)	n/a
3C	Eradicate Rhododendron.	£50,000	2015-20	Conservation Enhancement Scheme (CES)	Conservation Enhancement Scheme (CES)	Crown Estate (Rural)	n/a

4 Disease

Diseases of native oak are known from the local area. It is uncertain how significant this could be for the ancient oak population.

<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	Surveillance for tree diseases that might impact veteran trees.	Not yet determined	2015-20	Bio-security plan	Not yet determined	Forestry Commission	Woodland Trust

5 Air Pollution: impact of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads. Likely sources include Heathrow airport which is close to Windsor Forest. Air quality is likely to be an issue for old trees, fungi and lichens.

<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	Control, reduce and ameliorate atmospheric nitrogen impacts	Not yet determined	2015-20	Site Nitrogen Action Plan	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

Windsor Forest & Great Park SAC

H9120 Atlantic acidophilous beech forests with Ilex and sometimes also *Taxus* in the shrublayer (*Quercion robur-petraeae* or *Illici-Fagenion*)

H9190 Old acidophilous oak woods with *Quercus robur* on sandy plains

S1079 *Limoniscus violaceus*: Violet click beetle

Site location and links

Windsor Forest & Great Park SAC

Area (ha) **1687.26** Grid reference **TQ023784** [Map link](#)

Local Authorities Bracknell Forest; Surrey; Windsor and Maidenhead

Site Conservation Objectives [European Site Conservation Objectives for Windsor Forest & Great Park 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.

Windsor Forest & Great Park SAC

River basin

[Thames RBMP](#)

WFD Management catchment

Lower Thames, Wey

WFD Waterbody ID (Cycle 2 draft)

GB106039017050, GB30642691

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Windsor Forest & Great Park SAC	Windsor Forest & Great Park SSSI

National Nature Reserve (NNR)	
Windsor Forest & Great Park SAC	n/a

Ramsar	
Windsor Forest & Great Park SAC	n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Windsor Forest & Great Park SAC	n/a

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	04/11/2014	

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