

Site Improvement Plan

Cotswold Beechwoods

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)

UK0013658 Cotswold Beechwoods SAC

Site description

The Cotswold Beechwoods represent the most westerly extensive blocks of *Asperulo-Fagetum* beech forests in the UK.

The woods are floristically richer than the Chilterns, and rare plants include red helleborine *Cephalanthera rubra*, stinking hellebore *Helleborus foetidus*, narrow-lipped helleborine *Epipactis leptochila* and wood barley *Hordelymus europaeus*. There is a rich mollusc fauna. The woods are structurally varied, including blocks of high forest and some areas of remnant beech coppice.

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 Invasive species	Threat	H9130 Beech forests on neutral to rich soils	Reduce invasive sycamore, especially in the canopy	Forestry Commission, National Trust, Natural England
2 Deer	Threat	H9130 Beech forests on neutral to rich soils	Reduce deer browsing pressure	Forestry Commission, Gloucestershire County Council, Gloucestershire Wildlife Trust, National Trust, Natural England
3 Invasive species	Threat	H9130 Beech forests on neutral to rich soils	Reduce squirrel damage to trees	Forestry Commission, Gloucestershire County Council, Gloucestershire Wildlife Trust, National Trust, Natural England
4 Disease	Threat	H9130 Beech forests on neutral to rich soils	Produce a strategy to deal with potential ash dieback	Forestry Commission, Gloucestershire County Council, Gloucestershire Wildlife Trust, National Trust, Natural England
5 Public Access/Disturbance	Threat	H9130 Beech forests on neutral to rich soils	Minimise impact of recreational use, especially mountain biking, horse riding and dog walking	Gloucestershire County Council, National Trust, Natural England, Tewkesbury Borough Council

6 Changes in species distributions	Threat	H9130 Beech forests on neutral to rich soils	Monitor the effects of drought on beech trees	Natural England
7 Air Pollution: impact of atmospheric nitrogen deposition	Pressure	H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites), H9130 Beech forests on neutral to rich soils	Control, reduce and ameliorate atmospheric nitrogen impacts	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 Invasive species

The dumping of garden waste and the consequent spread of invasive plants is an on-going threat but one that the land managers largely have under control. However, the spread of the non-native sycamore provides more of a challenge and has made particular use of canopy gaps created by storm damage. Although sycamore is considered an acceptable component of woodlands, including beechwoods, on the continent, in the Cotswolds it tends to dominate understorey and canopy to the detriment of other (native) tree species. Its control is costly and time consuming and often unpopular with woodland owners who find it useful to "deflect" squirrel damage from the beech trees. This together with the ever increasing risk to native tree species from plant disease and climate change makes the sycamore issue all the more acute.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Ensure appropriate control of sycamore is included in future woodland management, through funding and regulation.	£20,000	2015-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Conservation and Enhancement Scheme (CES), New Environmental Land Management Scheme (NELMS)	Natural England	Forestry Commission, National Trust

2 Deer

Deer browsing of regenerating trees (and possibly ground flora) remains a major threat to favourable condition throughout the beechwoods. Whilst deer control does take place, this work needs to be monitored and coordinated to ensure deer populations are adequately managed.

<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 regular deer impact assessments and adequate control of deer, to ensure tree regeneration and ground flora.	£10,000	2015-20	Partnership agreement	Not yet determined	Natural England	Forestry Commission, Gloucestershire County Council, Gloucestershire Wildlife Trust, National Trust

3 Invasive species

Grey squirrel numbers have increased sharply over the past decade or so and now cause significant damage to tree species, in particular beech. In places, this can lead to pole stage beech being systematically ring barked and killed. Control measures are widely applied but the numbers and associated damage persists. This also disuades woodland owners from favouring the retention of beech.

<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	Increase the level of grey squirrel control to prevent damage to beech trees.	£10,000	2015-20	Invasive Control Plan: Invasive Species Control Programme	Not yet determined	Natural England	Forestry Commission, Gloucestershire County Council, Gloucestershire Wildlife Trust, National Trust

4 Disease

Although not known to be present in the Cotswolds as yet, *Chalara* (ash disease) is a major future threat to the beechwoods. Natural regeneration tends to favour ash although beech does also regenerate but at a slower rate. This has enabled an acceptable mix of beech/ash canopy with other minor species. However, the other main regeneration tree is the non-native sycamore. If ash starts to die out then the woodlands are likely to become dominated by sycamore, hence the need for a strategy to prepare for ash dieback.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
4A	Develop and implement a biosecurity plan to restrict spread of	Not yet determined	2015-20	Bio-security plan	Not yet determined	Natural England	Forestry Commission, Gloucestershire County Council, Gloucestershire Wildlife Trust, National Trust

5 Public Access/Disturbance

Public use of the Beechwoods has grown considerably over recent years and damage is becoming more widespread. A particular increase has been the use of mountain bikes and horseriding which use the woods far beyond the limited network of bridleways. This has created numerous additional trackways and so increasing the erosion of the ground flora and potentially opportunities for water erosion. Although the routes away from bridleways are not usually permitted, much of the SAC woodland is NNR or has public access by foot. Hence efforts have been made to provide agreed permissive routes with local bike groups with the aim of minimising damage whilst still allowing some use. This is still experimental and much will depend on the scale of use and whether the users stick to the permissive routes. This approach could also be tried with horseriders. Additionally, dog walking has increased within the SAC especially at Coopers Hill where car parking is available. This has become a particular issue where professional dog walkers release large numbers of dogs (up to 12) to run uncontrolled through the woods. This causes disturbance to wildlife as well as local nutrification through dog faeces.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
5A	Reduce impact of recreational pressure (particularly mountain biking, horseriding and uncontrolled dog walking) by implementing an access strategy.	Staff time	2015-20	Advice: Access Strategy	Not yet determined	Natural England	Gloucestershire County Council, National Trust, Tewkesbury Borough Council

6 Changes in species distributions

There is a risk that global warming will increase the risk of drought to beech trees (which are shallow rooted). Whilst this risk should be acknowledged, it should be noted that no evidence of drought amongst beech trees has been noted in the Cotswolds as yet and the nature of the soils (limestone rather than chalk) and the (wetter) westerly location may help to prevent the risk.

<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>
6A	Monitor for signs of drought through global warming, in particular in beech trees.	£5,000	2015-20	Investigation / Research / Monitoring		Natural England	n/a

7 Air Pollution: impact of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads. High atmospheric nitrogen levels could affect the SAC features through: changes in ground vegetation and mycorrhiza; nutrient imbalance; changes to soil fauna; increase in tall grasses; decline in diversity; increased mineralization; N leaching; or surface acidification.

<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>
7A	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

Cotswold Beechwoods SAC	H6210# Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>) H9130 <i>Asperulo-Fagetum</i> beech forests
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Site location and links

Cotswold Beechwoods SAC

Area (ha)	585.85	Grid reference	SO898134	Map link
Local Authorities				Gloucestershire
Site Conservation Objectives				European Site Conservation Objectives for Cotswolds Beechwoods 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.

Cotswold Beechwoods SAC

<i>River basin</i>	Severn RBMP
<i>WFD Management catchment</i>	Severn Vale
<i>WFD Waterbody ID (Cycle 2 draft)</i>	n/a

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Cotswold Beechwoods SAC	Cotswold Commons & Beechwoods SSSI

National Nature Reserve (NNR)	
Cotswold Beechwoods SAC	Cotswold Commons and Beechwoods NNR

Ramsar	
Cotswold Beechwoods SAC	n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Cotswold Beechwoods SAC	n/a

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	30/03/2015	

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