

**BROXBOURNE WOODS NATIONAL NATURE RESERVE (NNR)**  
**The Habitat Restoration Project at the Site of Special Scientific Interest (SSSI) within Broxbourne Woods**

**The wider context.**

Broxbourne Woods NNR covers 237ha and comprises of four woods: Bencroft, Broxbourne, Hoddesdonpark and Wormley. Hertfordshire County Council owns Broxbourne and Bencroft Woods, while the Woodland Trust owns Hoddesdonpark Woods and Wormley Wood. Each landowner manages their own woods, but does so within the context of the Broxbourne Woods NNR management partnership. This partnership involves Hertfordshire County Council, the Woodland Trust and the Hertfordshire Countryside Management Service, plus other stakeholders and adjacent landowners.

The SSSI is called 'Wormley, Hoddesdonpark Woods, North'. Nine hectares of the SSSI falls within Broxbourne Wood. The works within this area of Broxbourne Wood contribute to the broad management objectives identified in the National Nature Reserve (NNR) plan; a 20 year vision for the woodland which has been agreed with Natural England, the government's nature conservation advisers. The plan envisages up to 10% of the NNR being restored and managed as grazed wood pasture producing a more open landscape with a grass/heath ground flora underneath scattered trees.

See: [http://www.sssi.naturalengland.org.uk/Special/sssi/sssi\\_details.cfm?sssi\\_id=1002304](http://www.sssi.naturalengland.org.uk/Special/sssi/sssi_details.cfm?sssi_id=1002304)

Heathland and acid grassland habitats are rare and are disappearing at an alarming rate in lowland Britain. It has been estimated that 97% of Hertfordshire's heathland has been lost in the last 100 years.

See: [http://www.hef.org.uk/nature/biodiversity\\_vision/index.htm](http://www.hef.org.uk/nature/biodiversity_vision/index.htm)

The objective of the forestry operations in the HCC holding in Broxbourne Wood is to encourage native broadleaves by natural regeneration whilst retaining some of the better specimens of conifers. The harvesting of conifers is part of the normal process of woodland management, but it is accepted that conifers are part of this landscape and provide habitats for some important bird species.

Over the last 3 years Hertfordshire County Council has re-introduced hornbeam coppicing; created 2.75 km of wide rides and additional glades. These works will provide valuable new habitats and will encourage the return of a more natural and diverse species composition to the woodlands.

**The wood pasture restoration works within Broxbourne Wood.**

The SSSI within Broxbourne Woods covers 9ha. The restoration project has been guided by the site's Management plan written in 2008. The agreed management plan was the result of extensive consultation with Natural England, the Hertfordshire Biological Records Centre, the Woodland Trust, the Wood Wardens and Butterfly Conservation, amongst others. The objective of the works in the SSSI is to recreate a more open landscape of grass and heath punctuated by scattered trees.

**Funding**

The works are being funded through a 10 year Higher Level Stewardship Scheme agreement with Natural England. Additional financial support has been provided by the Landfill Communities Fund via the SITA Trust's 'Enriching Nature' grant scheme. All applications are ratified by the regional project assessment panel, and have to meet local and regional Biodiversity Action Plan targets.

**Monitoring**

As part of a conscious effort to improve the understanding of the ecology of the site, there has been an increase in biological recording and monitoring. A Phase 1 habitat survey has been completed and, thanks to the wildlife sites partnership, the recently created rides and glades have been surveyed. An independent Ecological Impact Assessment has been completed after consultation with many local conservation groups including:

Hertfordshire Biological Records Centre (HBRC);

Hertfordshire Historic Environment Record;

Natural England;  
The Forestry Commission;  
The Woodland Trust;  
Herts and Middlesex Wildlife Trust;  
Herts Badger Group;  
Herts Amphibian recorder;  
Butterfly Conservation;  
Broxbourne Wood Wardens; and  
Hertfordshire Bird Club.

The Ecological Impact Statement has guided the work specification. Regular monitoring throughout the restoration project will guide the works and ensure that best practice is employed. For example, the pond has been recognised as one of the more important breeding sites for Smooth, Palmate and Great Crested Newts. As a result, the work has been licensed by Natural England, supervised by a suitably licensed ecologist and working practices have been modified to minimise disturbance. Further survey and monitoring work has been planned and budget identified for the duration of the restoration programme.

### **Communication.**

To ensure that visitors are informed and are kept up to date with progress we have installed interpretation and notice boards in the two car parks. We have continued to update our web page as the project has developed. See <http://www.hertslink.org/cms/getactive/placestovisit/broxbournewoods/sssiarestproiupdate/> Local Parish Councillors and District Councillors have been kept aware of the project through guided visits, the County Council's Environment panel and through email or letters.

Across the whole site there has been a long term, significant contribution by volunteers, particularly the Wood Wardens, but also by groups from the Hertfordshire Regional College, the Countryside Management Service and from some corporate bodies.

### **The works.**

The restoration project will take 15 years so that changes will be gradual. An area of not more than 1 hectare will be restored every other year, so that tree thinning one winter will be followed by management of the re-growth during the next two years. A small number of traditional breed cattle will be used to help control the re-growth and enhance the developing grass and heath habitats underneath the remaining trees.

### **What has happened so far?**

The first phase of tree thinning has been largely completed with all the timber and brash removed from the site for sale in local markets. Trees that have been retained represent the best available specimens, locally important species including willow or oak, or natural clumps some of them conifer. These trees were selected because of their impact on the landscape and/or because of their ecological value as a host for key species. For example, some mature conifers were kept because they characterise the local landscape whilst having an association with bird species such as crossbills.

Vehicle movements required by large scale tree felling mean that a small number of trees which may otherwise have been retained were sacrificed for operational reasons.

Trees in the vicinity of the pond were removed with minimal disturbance to the newt population. Volunteers have constructed additional hibernacula to accommodate newts through the winter.

Due to the removal of planted and secondary woodland habitat there may be a short term negative impact on certain species during the course of the works. Indeed the Ecological Impact assessment predicted that this would be the case. However, it should be remembered that the works are restricted to just 1 hectare amongst 237 hectares in the wider NNR and that the new, developing wood pasture habitat will significantly increase the biodiversity of the SSSI. The Countryside Management Service and our partners believe that

the long term legacy for both users and biodiversity within this most important of sites will be overwhelmingly positive.

### **What will happen next?**

Volunteers will shortly be planting additional willow wands in the SSSI and along the sides of the newly extended rides, especially in the wetter areas.

A small amount of further tree felling will be necessary to 'fine tune' the landscape element of the first phase.

In the spring, tree stumps will be removed and mulched which will be supervised by our licensed ecologist. This operation will expose the seed bank in the soil to some welcome heat and light and the re-vegetation will commence. Any ruts or surface damage will be made good at this stage or when the ground conditions allow.

A post and rail fence will be installed around the boundary of the SSSI so that low intensity grazing by rare breed cattle can begin. To improve access for the public to the enclosure, kissing gates and squeezes will be installed. The fencing will not obstruct the permissive horse track around the perimeter.

Regular biological monitoring will continue to provide material that will inform the management of the project as it progresses. For example, it's likely that a significant programme of bracken control will be necessary.

Improving the facilities for visitors to Broxbourne Woods is an important aim of the management plan, and there are plans to upgrade parking provision, install additional security against fly-tipping and misuse, and improve timber extraction facilities to minimise the impact of future forestry operations.

If you'd like to find out more, a guided walk around the site will occur on the 24<sup>th</sup> March 2012 and an open day inviting you to 'Meet the Cows' will take place shortly after the arrival of the cattle.