

# **Nostell Priory**

Woodland Management Plan April 2018- March 2028



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The aim of this plan is to provide a ten year programme of woodland management that will meet the aims and objectives of the National Trust at Nostell in Wakefield. The detail of the plan focusses on tree thinning and felling works at the site. Detail relating to the access and built structures at the site form the content of other plans. There are also detailed ecological and tree surveys that have been undertaken recently which have informed the work identified in this plan.

### Background to the Woodlands at Nostell

This woodland plan covers 43.5ha over 19 compartments.

Nostell is located in West Yorkshire approximately 10km to the south west of Wakefield along the Wakefield - Doncaster Road A638, within an area known as Wakefield and the Five Towns. The house on its present site (Grade I) was built to the north of the old priory in the mid- 18th century. The house is surrounded by gardens, pleasure grounds and a parkland which is Grade II\* Registered Park and Garden (RPG). The house and majority of the surrounding parkland is now owned by the National Trust.

Nostell is a rare survival amongst the great West Yorkshire country houses with its park setting and the majority of its collections intact. It is located in West Yorkshire, south of Leeds, within easy reach of Pontefract, Wakefield and Doncaster. It is the most important National Trust house in Yorkshire and with its outstanding ensemble of contents is one of the most important nationally.

The House takes its name from the Augustinian priory dedicated to St Oswald that was founded here in the 12<sup>th</sup> century. At the Dissolution, the priory buildings were converted into a house which was acquired in 1654 by the Winn family, who created the estate and collections and who have lived here ever since.

The landscaping included burial of the remains of the priory and the previous house. All the key features survive in the Park, including the Stables the great East Vista, the Menagerie and Park walls and lodges. The last were all designed by Robert Adam and include one of his most ingenious creations to mark the principal 18<sup>th</sup> century entrance into the Park from the Wakefield-Pontefract road: the Needle's Eye gate in the form of a pedimented gateway piercing an obelisk.

Water is also a key component of the landscape with the Upper and Middle Lakes divided by the 1761 bridge designed by Sir George Savile which still provides the crossing for the Doncaster-Wakefield road. The Middle and Lower lakes are surrounded by Pleasure Grounds largely created in the 19<sup>th</sup> century and crossing points were provided by a Swiss Bridge on the Middle Lake Dam, the Sheep Bridge next to the Boat House and, most extraordinary of all, a Druids Bridge built at the foot of the cascade flowing between the Middle and Lower Lakes.

With its surviving walls and perimeter planting the Park presents a rural enclave, protected from the wider landscape severely affected by coal mining, modern agricultural practice and the urban sprawl of Wakefield and Pontefract. Apart from a small number of community events and others, including the annual Country Fair, there has been no great tradition of public access. The potential significance of the Park in terms of public enjoyment is very great.

The woodlands at the site are predominantly broadleaved with the dominant species being sessile and pedunculate oak (potentially hybrids of both) and sweet chestnut. Much of the woodland is mature with many veteran trees within the stands. Some new planting serves to diversify the overall age structure of the wooded aspect of the estate and these younger areas are now ready for their first management interventions.

The site lies on flat to gently sloping ground at an altitude of 40m – 60m above sea level. The main topographical feature is a small stream (Hardwick Beck) which eventually flows into the Humber. The stream has been dammed to form two lakes.

The underlying geology consists of Westphalian clay and coal measures with beds of sandstone, all deposited during the Carbon iferous Period. In much of the surrounding area these have been exploited for coal, clay (for brick making) and stone. An old clay pit just beyond the NT boundary (Nostell Brickyard Quarry) was designated as a SSSI for the marine fossils it contains. However it has since been filled in with mineral waste and was classed as Destroyed in the last Natural England condition assessment.





Photo: Compartment 9

laximise the value f our woodlands for iodiversity through estoration of ncient Woodland tes and to conduct anagement noughout our roodlands that reates a diverse age cructure and ustainable, dynamic orest ecosystems. he work we do will im to protect and nhance biodiversity all woodlands and pen habitats.	<ul> <li>Britain's woodland biodiversity is in trouble. Reports show that 60 per cent of our woodland species have decreased and 34 percent have decreased strongly over recent decades. Species decline is attributed to a lack of structural diversity in our woodlands with low management intervention and increased deer numbers resulting in uniform and aging woodlands. We want to do what we can to reverse this trend and help save Britain's natural heritage. We've identified those species listed as being of high conservation importance, these are listed below:</li> <li>Bats: 7 species recorded locally including a large noctule <i>Nyctalus noctula</i> bat roost within woodpecker holes on a dead tree to the east of the dam wall between the Middle and Lower Lakes. Other species include roosts of brown long-eared and Natterer's bats in the house, with a roost of Daubenton's bat under the bridge by the boathouse on the lower lake.</li> <li>Both species of pipistrelle and Leisler's bat have also been recorded on the property</li> <li>Birds: Green woodpecker, greater spotted woodpecker, goldcrest, long-tailed tit, coal tit, blue tit, great tit, nuthatch, tree creeper and the Red-listed/ UK BAP Priority spotted flycatcher, lesser spotted woodpecker tawny owl.</li> <li>Mammals: Historic Water Vole records</li> <li>Amphibians: Common toad, common frog, great crested newt, smooth newt.</li> </ul>	<ul> <li>Thinning is the primary intervention at this site. This will have a number of benefits for the woodlands and the species which inhabit them. It will open up the canopy allowing regeneration of tree and scrub species. This will diversify the habitat creating more opportunities for priority bird species such as the willow tit. By diversifying the woodland's age structure, we will also ensure the long term persistence of the woodlands in to the future.</li> <li>Thinning will be used to release of veteran trees from competition increasing their health and longevity. It will also allow site managers to develop the younger woodland at the site in a manner that will ensure tree health and maximise their landscape value.</li> <li>Use a combination of natural regeneration and enrichment planting with native species to regenerate or restock sites to favour red squirrel and reptile habitat.</li> <li>Continue to evaluate the current nature conservation value of the woodlands through stakeholder communications and survey work and respond accordingly.</li> <li>Monitor priority species and habitats to help assess improvement and gain a better understanding of current position.</li> <li>Control non-native invasive species including rhododendron and grey squirrel.</li> <li>Encourage the development of greater structural and species diversity through supplementary tree planting where natural regeneration is not apparent or of the desired species.</li> <li>Increase dead wood volumes by ring barking selected trees away from areas of high public access.</li> <li>Identify and conserve veteran trees. Avoid felling large/veteran trees for safety reasons unless absolutely necessary.</li> <li>Protect wildlife and ancient woodland features by marking them on the ground during operations and including them in operational constraints maps.</li> <li>Ensure regeneration is protected from adjacent livestock farming through fence maintenance and when restocking, consider provenance and species in relation to climate change.</li> </ul>

What we want to do	Why we want to do it?	How can we achieve it?
To improve access for management and enhance and encourage safe and sympathetic public access, extending opportunities for education, recreation and participation where this does not conflict with the other objectives.	The quality of experience for our visitors is of high importance. This plan aims to maintain the woodlands' wild feel and to ensure that our woodlands can be enjoyed by generations to come.	Continue to assess the current access situation and map where access can be improved/created. Develop opportunities for the local community to get involved in the site through the volunteer programme. Work with local schools to enable them to use our woodlands to get outdoors and closer to nature. Improve access and facilities throughout the sites to facilitate management programmes and enable people to enjoy and get more from their visit. Use the programme of woodland management as a tool to engage visitors and educate them about the importance of conservation and what our sites can offer.
Reduce our carbon footprint	<ul> <li>The Earth's temperature is warming a result of human activities. Global Warming is already having a terrible impact upon the lives of people and nature across the globe.</li> <li>If the global rise in temperature can be kept below 2 degrees Celsius, the negative effects of climate change can be minimised, this however will require a change in all of our carbon outputs.</li> <li>We therefore wish to minimise carbon outputs and sequester as much carbon as possible through natural processes.</li> </ul>	To conduct woodland management which promotes the growth of new trees and rapid growth through tree species selection for replanting and silvicultural systems such as coppicing. To undertake silvicultural practices which minimise soil erosion and promote soil formation. Work which allows more light to the woodland floor will facilitate this process.

What we want to do	Why we want to do it?	How can we achieve it?
Contribute to the local economy	We want our land to contribute to the quality of life for local people. One of the ways we seek to achieve this is by contributing to the local economy.	<ul> <li>Where possible and appropriate, trees will be harvested when they achieve their optimal economic potential</li> <li>Apply for appropriate woodland/countryside grant schemes and regional funding to achieve stated objectives</li> <li>Where possible generate timber income through harvesting programmes to help fund the ecological restoration process and wider woodland improvement programmes.</li> <li>Work with regional contractors to develop a contractor base adapted to woodlands with access issues.</li> </ul>
Ensure the woodland habitats are resilient to climate change and plant diseases	Climate change presents an unprecedented threat to our woodland ecosystems. By creating woodlands diverse in structure and species we will increase the overall resilience of these ecosystems.	Increase structural and species diversity where ever possible through harvesting to allow natural regeneration where possible. Remove species known to increase the likelihood of disease transmission e.g Rhododendron Seek opportunities to increase habitat connectivity
To manage health and safety at the site in line with the 'Tree Safety Management in the National Trust' procedure Sep 2015	There are risks of injury to staff, volunteers and the public from falling trees and branches. There are also risks of damage to buildings, property and vehicles. The Trust has a statutory and common law duty to assess and manage these risks. The duty is established in criminal law under the Health and Safety at Work Act, and in civil law under the Occupier's Liability Act. The Trust must take all precautions as far as is reasonably practicable to avoid risks to the safety of members of the public, staff and volunteers. Therefore there is a need to inspect trees in and near public places and adjacent to buildings and working areas, to assess whether they represent a risk to life and/or property, and to take remedial action as appropriate.	By following National Trust Health and Safety procedures.

What we want to do	Why we want to do it?	How can we achieve it?
Conserve the historic and cultural landscape in ways that enhance the Spirit of Place	We recognise our responsibility towards the protection of our historic environment and seek to maintain and enhance it for ongoing enjoyment and education.	Using the Site and Monuments register record the condition of the archaeological features across Nostell. When carrying out woodland work ensure that the historic environment is protected in line with guidance from Historic England. Working with the NT archaeologist discuss the further research recommendations from historic environment report (where applicable) and the potential to achieve them. Maintain and protect designed woodland landscape elements across the site.













# Section 4: Summaries Compartment





Compartment: 1aSpecies:Sycamore with Sessile Oak, Beech, and Sweet ChestnutHectares: 12.42

### Woodland Name: Priory Wood, Top Park Wood, Foulby Park

**Designations**: PAWS, RP&G **Issues**: Closed canopy shading out native flora and native tree regeneration.

Intervention: 20% thin creating canopy gaps within the woodland and halo thin around old trees

Work Period: April 2018- March 2020

**Description**: A mature broadleaved woodland with varied age structure.

**Aims**: To diversify the woodland structure and increase its native composition to benefit biodiversity.



**Compartment: 1b Species**: Beech, Sessile Oak and Sweet Chestnut

Hectares: 0.18

Woodland Name: Obelisk Park

**Designations**: RP&G

**Intervention**: 30% Thin for form and High Prune remaining trees

Issues: None

**Description**: A young woodland with mixed native species.

Aims: To diversify structure, encourage healthy growth and manage for visual amenity, and biodiversity.

Work Period: April 2018- March 2020



Compartment: 2a

**Species**: Corsican Pine

Hectares: 0.15

Woodland Name: Obelisk Park

**Designations**: None

Intervention: Fell CP in 10-20 years once trees in compartment 18 are tall enough to provide screening.

Work Period: 2028-2038 Issues: Uniform age, species and structure

**Description**: A stand of mature conifer.

**Aims**: To restock with native trees when the landscape impact can be fully mitigated.



**Compartment: 2b** Species: Beech and Sycamore with Corsican Pine, Pedunculate Oak and Elder Hectares: 4.19

Woodland Name: Obelisk Park

**Designations**: None Intervention: 30% Thin

Work Period: April 2018- March 2020

**Issues**: Closed canopy shading out native flora and native tree regeneration.

**Description:** A mature woodland with mixed species.

Aims: To diversify the woodland structure and increase its native composition to benefit biodiversity.



Compartment: 3

# Species: Sessile Oak and Beech

Hectares: 0.74

Woodland Name: Obelisk Park

Designations: RP&G

Intervention: 30% Thin

Work Period: April 2022- March 2024

**Issues**: Closed canopy shading out native flora and native tree regeneration.

**Description:** A mature broadleaved woodland.

**Aims**: To diversify the woodland structure and increase its native composition to benefit biodiversity.



Compartment: 4a

### Species: Sessile Oak

Hectares: 0.28

Woodland Name: Obelisk Park

**Designations**: RP&G

Intervention: None

Work Period: Long Term Retention

Issues: None

**Description**: A mature woodland with native broadleaved tree species and a varied age structure.

**Aims**: To maintain the woodlands characteristics and landscape value.



Compartment: 4b

**Species**: Sessile Oak with Sycamore, and Beech.

Hectares: 0.77

Woodland Name: Obelisk Park

Designations: RP&G

Intervention: None Work Period: Long Term Retention

Issues: None

**Description**: A mature mixed woodland with a diverse age structure.

Aims: To maintain the woodlands characteristics and landscape value.



Hectares: 0.48

Compartment: 5 Species: Sessile Oak, Beech and Ash

Woodland Name: Obelisk Park

Designations: RP&G

Intervention: None

Work Period: Long Term Retention

Issues: None

**Description:** A mature mixed woodland with a diverse age structure.

Aims: To maintain the woodlands characteristics and landscape value.



Compartment: 6aSpecies: Corsican Pine with Sycamore, Sessile Oak and Sweet Chestnut.Hectares: 1.04

Woodland Name: Foulby Park

Designations: RP&G

Intervention: 30% Thin with halo thinning around Veteran trees

Work Period: April 2022- March 2024

**Issues**: Closed canopy shading out native flora and native tree regeneration.

Description: A mature woodland with mixed native and non-native broadleaved species and a uniform age structure.



Compartment: 6b

### **Species**: Birch with Pedunculate Oak

### Hectares: 0.31

Woodland Name: Foulby Park

**Designations**: RP&G

Intervention: 30% thin

Work Period: April 2022- March 2024

Issues: None

**Description**: A young woodland with mixed native species.



Compartment: 6c Species: Sycamore with Sessile Oak and Sweet Chestnut

Hectares: 2.52

Woodland Name: Foulby Park

Designations: RP&G

**Intervention**: 10% Thin with halo thinning around Veteran trees

Work Period: April 2022- March 2024

Issues: None

Description: A mature woodland with mixed native and non-native broadleaved species and a diverse age structure.

Aims: To release veteran trees from competition and manage for visual amenity, health and safety, and biodiversity.



Compartment: 7Species: Sweet Chestnut with Sycamore, Beech, Yew, Holly and Sessile OakHectares: 2.67

Woodland Name: Nostell Park

Designations: RP&G

Intervention: None Work Period: Long Term Retention

Issues: None

**Description**: A mature woodland with native broadleaved tree species and a varied age structure.

Aims: To maintain the woodlands characteristics, and protect existing biodiversity and landscape value.



### Compartment: 8Species: Sessile Oak with European LarchHectares: 2.56

Woodland Name: Joiners Shop Plantation

**Designations:** RP&G

Intervention: 30% Thin

Work Period: April 2022- March 2024

Issues: Closed canopy shading out native flora and native tree regeneration.

Description: A mature woodland with mixed native and non-native species and a uniform age structure.



### Compartment: 9a

Species: Ash

Hectares: 0.88

Woodland Name: Engine Wood

**Designations**: RP&G **Intervention**: 30% thin Work Period: April 2024- March 2026

**Issues**: Uniform species with disease vulnerability.

**Description:** An established ash woodland.

Aims: To diversify the species mix to increase habitat resilience to disease.



Compartment: 9b Species: Sessile Oak and Birch with Sycamore

Hectares: 2.86

Woodland Name: Engine Wood

Designations: RP&G

**Intervention**: 30% Thin

Work Period: April 2024- March 2026

Issues: Closed canopy shading out native flora and native tree regeneration.

Description: A mature woodland with mixed native and non-native broadleaved species and a mixed age structure.



Compartment: 9cSpecies: Sessile Oak with Sweet Chestnut, Beech and Birch.Hectares: 3.68

Woodland Name: Roebuck Wood

**Designations**: RP&G Intervention: 30% thin Work Period: April 2024- March 2026

**Issues**: Closed canopy shading out native flora and native tree regeneration.

Description: A mature woodland with mixed native and non-native broadleaved species and a uniform age structure.



### **Compartment: 10 Species**: Sessile Oak and Ash

### Hectares: 1.83

Woodland Name: Roebuck Wood

**Designations**: RP&G Intervention: 30% thin Work Period: April 2024- March 2026

**Issues**: Closed canopy shading out native flora and native tree regeneration.

Description: A mature woodland with mixed native broadleaved species and a mixed age structure.



Compartment: 11aSpecies: Ash with Sessile Oak, Beech and Bird CherryHectares: 0.33

Woodland Name: Chestnut Wood

**Designations**: RP&G

Intervention: 30% Thin

Work Period: April 2024- March 2026

Issues: None

**Description:** a mid-age shelter belt which would benefit from opening the stand to allow stem development and ground flora to develop.

Aims: To maintain shelter and landscape functions.



Compartment: 11b Species: Birch, Beech, Sessile Oak and Sycamore

Hectares: 0.92

Woodland Name: Chestnut Wood

**Designations**: RP&G **Intervention**: None

Issues: None

**Description**: A mature woodland with native broadleaved tree species and a varied age structure.

**Aims**: To maintain the woodlands characteristics, and protect existing biodiversity and landscape value.



Compartment: 12

Species: Sessile Oak and Sycamore

Hectares: 3.02

Woodland Name: Longley Wood

Designations: None

Intervention: 30% Thin

Work Period: April 2024- March 2026

Issues: Closed canopy shading out native flora and native tree regeneration.

Description: A mature woodland with mixed native and non-native broadleaved species and a uniform age structure.



### Compartment: 13Species: Sessile Oak and Sweet ChestnutHectares: 0.04

Woodland Name: Obelisk Park

Designations: RP&G

**Intervention**: 30% Thin for form and High Prune remaining trees

Work Period: April 2020- March 2022

Issues: None

**Description**: A young woodland with mixed broadleaved species.



Compartment: 14

Species: Beech, Sessile Oak and Sweet Chestnut

Hectares: 0.08

Woodland Name: Obelisk Park

Designations: RP&G

Intervention: 30% Thin for form and High Prune remaining trees

Issues: None

Description: A young woodland with mixed broadleaved species.

Aims: To diversify structure, encourage healthy growth and manage for visual amenity, and biodiversity.

Work Period: April 2020- March 2022



**Compartment: 15 Species**: Beech, Sessile Oak and Sweet Chestnut

Hectares: 0.18

Woodland Name: Obelisk Park

**Designations**: RP&G **Intervention**: None

Issues: None

**Description:** A young establishing woodland with mixed broadleaved species.

Aims: To promote good establishment.



Compartment: 16 Species: Pedunculate Oak with Beech

Hectares: 0.05

Woodland Name: Obelisk Park

**Designations**: RP&G Intervention: 30% Thin

Work Period: April 2020- March 2022

Issues: None

**Description**: A young woodland with mixed broadleaved species.



Compartment: 17 Species: Sessile Oak, Beech and Sweet Chestnut

Hectares: 0.6

Woodland Name: Obelisk Park

**Designations**: RP&G

Intervention: 30% Thin

Work Period: April 2020- March 2022

Issues: None

Description: A young woodland with mixed broadleaved species.



Compartment: 18 Species: Sessile Oak, Beech and Sweet Chestnut

Hectares: 0.6

Woodland Name: Obelisk Park

**Designations**: RP&G Intervention: 30% Thin

Work Period: April 2020- March 2022

Issues: None

**Description**: A young woodland with mixed broadleaved species.



**Compartment: 19 Species**: Beech and Pedunculate Oak

Hectares: 0.1

Woodland Name: Obelisk Park

**Designations**: RP&G **Intervention**: None

Issues: None

**Description:** A young establishing woodland with mixed native species.

Aims: To promote good establishment.