# Highgate Wood 10 year Woodland Management Plan 2018-2028

NOTE: this is a very early draft of the management plan. It indicates how the plan will be formatted, closely following the Forestry Commission format; sets out the draft Vision and Objectives for the Wood and how these will be achieved; and provides a description and management options for a sample compartment.

# Contents

1.	Introduction	1
2.	Vision and Objectives	1
3.	Plan Review – Achievements	2
4.	Woodland Survey	2
5.	Protection	5
6.	Management Strategy	6
7.	Stakeholder Engagement	8
8.	Monitoring	8
9.	Appendix 1: Compartment descriptions and management options	9
9.1	Compartment 1	9
9.2	Compartment 2	9
9.3	Compartment 3	9
10.	Appendix 2: 10-year work programme – plan of operations	. 11

### 1. Introduction

To be drafted, along the lines of: It's for Highgate Wood, and its scope, i.e. a woodland conservation management plan, does not cover wider aspects which are covered in existing CMP such as volunteers; format of plan is based on that of the Forestry Commission.

# 2. Vision and Objectives

### 2.1 Vision

14/11/2017

A well-structured, semi-natural and biodiverse woodland which is managed to sustain its long-term future whilst maintaining its reputation as a safe environment for informal recreation and education.

#### 2.2 Objectives

- 1. Maintain the overall character of hornbeam coppice with oak standards while increasing the diversity of native trees and shrubs
- 2. Increase structural diversity, with a wider age range of trees and coppice, a greater number of pollarded trees, a well-developed shrub layer and abundant standing and ground-level dead wood
- 3. Manage for resilience to present and forthcoming threats, such as tree diseases, invasive plants and animals and climate change
- 4. Mitigate damage from compaction and erosion while promoting public access and enjoyment
- 5. Continue to survey birds, bats, fungi; monitor the population of oak standards and saplings; and record wildlife sightings

# 3. Plan Review – Achievements

This is the first woodland management plan for Highgate Wood.

# 4. Woodland Survey

#### 4.1 Description

Highgate Wood (figure 1) is a mixed deciduous ancient semi-natural woodland on a sandy clay deposit of Claygate Beds. The terrain is relatively flat, although there are slight slopes and undulations throughout. The highest point is in the northern section of the wood, to the north of a drying spring and drainage-fed stream in a shallow valley that now flows only very rarely after heavy rain. The soil is compacted as a result of over a century of constant foot traffic, and is significantly worse in some areas than others.

The canopy largely comprises mature oak standards and fine but long over-stood hornbeam coppice. Coppicing was still being carried out into the late 1800s, but none was undertaken between the end of the First World War and the 1970s. Both native oak species are present as standard trees, but sessile is much less numerous than pedunculate oak. Other trees and shrubs present, many of them planted, include a line of now mature beech trees, hawthorn (some very old), wild service, hazel, alder buckthorn, holly, goat willow, wild cherry, rowan and silver birch. The latter four continue to set seed well and spread under the canopy and in gaps. Ash, elm, field maple and blackthorn are present in smaller numbers. Other introduced trees include horse chestnut, European and small-leaved limes, sycamore and Norway maple, many of which are very large old trees now. Some exotic conifers were planted in several places in the late 1960s.



There is relatively little tree regeneration as the canopy is dense in much of the wood. However, where there the canopy is thinner and in canopy gaps, such as where oaks are declining and in Conservation Areas, hornbeam, birch, rowan, wild cherry, goat willow and field maple are regenerating, with oak regeneration more limited. Hornbeam saplings are being badly damaged by grey squirrels.

Dead wood habitats are abundant, both aerial and on the ground. The shrub layer is well developed in much of the wood but largely absent in some areas, variously due to a dense tree canopy, heavy public use and/or soil compaction. Bramble and holly are abundant; the latter is selectively controlled. Other shrubs present, many of them planted, include hazel, hawthorn, alder buckthorn, elder and blackthorn. Two hedges have recently been planted.

The ground flora is sparse in much of the wood, although a good range of native species is present, some of them introduced over the past 30 years or so. In spring an excellent display of native bluebells can be enjoyed, and other woodland species which can be found include wood anemone, scaly male-fern, primrose, remote sedge, wild garlic and wood and pendulous sedges. Ivy is abundant. The fungi of Highgate Wood have been well studied and documented since 1994, and over 350

species identified, many of which are associated with old trees and some of which are quite rare.

A programme of creating Conservation Areas every 5 years commenced in 1977 and is continuing. The objective is to open up the canopy to encourage tree regeneration, benefit mature oaks, encourage ground cover, and also to create new hornbeam coppice and pollards. Within these areas selected trees, mostly hornbeam, are coppiced or, occasionally, pollarded. The areas are initially fenced, with the fence being removed after 10 years, although it has been retained in a couple of instances. The first were small, but their area has been increased and the 9th and most recent, created in winter 2016/7, extends to 0.8 hectares. The total extent of Conservation Areas is currently three hectares.

The site is visited by a large number of birds, and at least 30 species breed here regularly. Seven species of bat have been recorded and there have been roosts in many of the oaks. Bat and bird boxes provide additional roosting and nesting places and enable bat populations to be monitored. Regular moth trapping sessions have identified nearly 400 species between 1985 and August 2017.

#### 4.2 Information

Highgate Wood has been designated as Metropolitan Open Land in the Mayor of London's Local Plan, and is also recognised as a Site of Metropolitan Importance for Nature Conservation by the Greater London Authority.

The following protected and/or UK BAP species have been recorded in Highgate Wood:

To be inserted from HWCMP

#### 4.3 Habitat Types

Feature	Within woodland	Compartments	Map no.	Notes
Ancient semi- natural woodland	Y	all	1	
Lowland mixed deciduous woodland	Y	all	1	
Lowland meadow	N	1	1	Small area of sown grassland
Wetland habitat	Y	1	1	Small pond

#### 4.4 Structure

Woodland type	Percentage of management plan area	Age structure	Notes
Native broadleaves	95	Even aged?	Understorey present in about half the wood, natural regeneration present, especially hornbeam.
Conifers	5	Even aged	Small groups of conifers present in several areas of the wood.

# 5. Protection

#### 5.1 Risk Matrix

To be added

#### 5.2 Plant health

To be added

Threat	
Likelihood of presence	
Impact	
Response	

#### 5.3 Deer

- 5.4 Grey Squirrels 5.5 Livestock and Other Animals
- 5.6 Water and Soil
- 5.7 Environmental
- 5.7 Climate Change Resilience

All to be added

# 6. Management Strategy

Management Objective	Management Intention
1. Maintain the overall character of	The overall character of hornbeam coppice with oak standards will be maintained by:
with oak standards while increasing the diversity of native	<ul> <li>Retaining and nurturing the great majority of existing oak standards</li> </ul>
trees and shrubs	<ul> <li>Increasing the number of young oaks by both natural regeneration and planting. For the latter, seedlings or acorns will be sourced from Highgate Wood or Hampstead Heath and grown on locally. Young oaks will be nurtured, for example by clearing vegetation round seedling and sapling oaks, cutting back nearby trees to encourage young trees to thrive, protecting young regeneration with tree tubes; and thinning regeneration where necessary</li> </ul>
	<ul> <li>Retaining the majority of the existing hornbeam pollards, and especially the finest specimens</li> </ul>
	<ul> <li>Regenerating hornbeam coppice by coppicing selected existing hornbeam stools as well as creating areas of new coppice from patches of naturally regenerating hornbeam saplings. These will subsequently be managed in a regular coppice cycle.</li> </ul>
	The diversity of trees and shrubs will be increased by:
	• Planting further suitable native trees and shrubs, including some which are currently uncommon in the wood. Possible species include small leaved lime, wild service, hazel, hawthorn, spindle and alder buckthorn
	• Continuing with the programme of creating new Conservation Areas and creating new or expanding existing smaller canopy gaps. These and existing gaps will provide suitable sites for tree and shrub planting. New Conservation Areas will be created at 5 year intervals, but this rate will be kept under review and will necessarily decrease in the longer term as more of the woodland is managed.

	Map x indicates were the next x Conservation Areas are planned, where existing areas will be expanded, and some of the existing canopy gaps in the wood.
2. Increase structural diversity with a wider age range of standard trees and coppice, a greater number of pollarded trees, a better- developed shrub layer. Maintain high quantities of standing and ground-level dead wood.	<ul> <li>This will be achieved by:</li> <li>Encouraging natural oak regeneration and planting native trees and shrubs (see Objective 1 above)</li> <li>Establishing new coppice of hornbeam (see Objective 1 above) and hazel.</li> <li>Pollarding more trees, especially hornbeam which would otherwise need to be felled in Conservation Areas or other areas where copy gaps are to be created. This has two advantages. Firstly, it creates additional habitat variety. Secondly, it preserves hornbeam stools which would otherwise be lost. Hornbeams which have epicormic shoots at 1-3 metres are the most suitable for pollarding. Although pollarding does not accord with the historic character of the wood it is considered that this is the optimum way of retaining as many original stools as possible</li> <li>Creating monoliths (dead standing trunks) where trees, especially oaks, would otherwise need to be felled entirely.</li> </ul>
3. Manage for resilience to present and forthcoming threats, such as tree diseases, invasive plants and animals and climate change	<ul> <li>This will be achieved by:</li> <li>Increasing the diversity of native trees and shrubs (see Objectives 1 and 2)</li> <li>Promoting tree health by ensuring good growing conditions, e.g. by reducing or thinning selected trees to increase space and light for others</li> <li>Continuing to control grey squirrels by trapping</li> <li>Monitoring tree health</li> <li>Eradicating or managing invasive plants</li> </ul>

4.	Mitigate damage from compaction and erosion due to visitor activities whilst promoting public access and enjoyment	<ul> <li>Leaving fences or dead-hedges around Conservation Areas and elsewhere for as long as is acceptable</li> <li>Laying trees where possible across shortcuts and along path edges</li> </ul>
5.	Continue to survey birds, bats, fungi; monitor the population of oak standards and saplings; and record wildlife sightings	<ul> <li>This will be achieved by:</li> <li>Continuing a programme of monitoring oak canopy decline which was initiated in 2010. Re-survey will be carried out at minimum every 2 years.</li> <li>Continuing with other existing surveys and record keeping</li> </ul>

# 7. Stakeholder Engagement To be added

# 8. Monitoring

Management	Indicator of	Method of	Frequency of	Responsibility	Assessment
Objectives/Activities	Progress/Success	Assessment	Assessment		Results
Objectives//tetrities	11091035/0400055	710000001110111	7.000000110110		rtesuits

To be added

# 9. Appendix 1: Compartment descriptions and management options

## 9.1 Compartment 1

To be added

# 9.2 Compartment 2

To be added

## 9.3 Compartment 3

Figure 4: Overview of Compartment 3



Table 3: Description and management of compartments

Sub-	Description	Management
compartment		options
3.1	Mature oaks and some fine hornbeams. No	
	canopy gaps. Generally poor shrub layer,	No special
	mostly holly. Ground heavily shaded, mostly ivy	management

	and bramble, and some bare ground. 18 notable hornbeams and 7 notable oaks.	
3.2: Conservation Area 5	A Conservation Area created in 20xx which is now relatively dense, wild and undisturbed. Good mixed tree ages and species. Some fine oaks and hornbeams. Good shrub layer; several canopy gaps with regenerating birch, hornbeam etc. Patch of young hornbeam regeneration in north-west corner and another area of sparser young hornbeam regeneration at north-east corner. <i>Have not yet counted</i> <i>notable trees</i> This area demonstrates the value of woodland management such as creating Conservation Areas.	Detailed management such as re-coppicing hornbeam regeneration from stools coppiced in 20xx; maintaining space around a notable oak, and further holly control. Possible area for creation of new hornbeam coppice in north-west corner.
3.3	Steeply sloping down to the road near road at southern end. Varied tree structure and species; much ivy and bramble, some bare ground. Ground flora includes wood anemone and lords and ladies. 12 notable hornbeams and 10 oaks, 3 mature European lime, 1 very large Norway maple, and a large group of elms in northern half of the sub-compartment; understorey of native shrubs.	Monitor elms for Dutch Elm Disease Control Norway maple seedlings
3.4	Oak canopy. Variable shrub layer: bare; or dense holly; or with good hazel, bramble and alder buckthorn in a canopy gap. Excellent dense shrub layer near SW corner where there is also a nice small glade with a young oak tree. Patch of dense hornbeam coppice near western edge. Includes Wild Learning/Forest School area, where ground is largely bare. 10 notable hornbeams, 25 notable oaks, 1 notable birch, 5 beech including some badly stripped. Glade near path at SW corner provides good visual distinctiveness and habitat variety.	Reduce holly near Wild Learning / Forest School area. Area for possible pollarding of hornbeams hear NW corner. Reduce canopy of trees and shrubs near your oak to encourage growth.
3.5	Fewer oaks or specially notable hornbeams than in some areas of the Wood. Holly abundant, much ivy and some bare ground.	Possible area for glade creation.
	8 notable hornbeams, 6 notable oaks, 1	young wild service

	notable beech, 1 memorial cherry and 4 conifers.	tree, including pollarding 4 single- stem mature hornbeams nearby.
		Extend holly control from fine oaks at edge of area sub- compartment 3.4 to the wild service tree.
3.6	Several fine oak and hornbeams. Ivy, bramble and holly ground cover, and some bare ground. Greater stitchwort and other flora at road edge. 17 notable hornbeams, 5 notable oaks. Elms at southern tip, 1 with probable Dutch Elm Disease. 1 notable silver fir.	No special management required.

Remaining compartments – to be added

# 10. Appendix 2: 10-year work programme – plan of operations

To be added