

Headstone Manor Recreation Ground, The Copse: Ecological Management Plan April 2021-March 2026

January 2021



**Denis J Vickers BSc (Hons), FLS, CBiol, MRSB, MCIEEM
Consultant Ecologist**



Mobile: 07888677730

E-mail: denis@consultantecologist.co.uk

Web: www.consultantecologist.co.uk

79 Davington Road, Dagenham RM8 2LR

Produced for:

**Thames21 on behalf of the London Borough of Harrow
for Parks for People project
at Headstone Manor Park**



SUPPORTED BY
MAYOR OF LONDON



Contents:

1. Introduction	1
2. Description	2
3. Analysis and Establishment of Management Aims	11
4. Management Prescription	16
5. References	26
Appendix 1: Site plan	28
Appendix 2: Site plan showing management	29
Appendix 3: Vascular plants recorded	30
Appendix 4: Stag beetle loggeries and boxes	32
Appendix 5: Hibernaculum for amphibians & reptiles	33

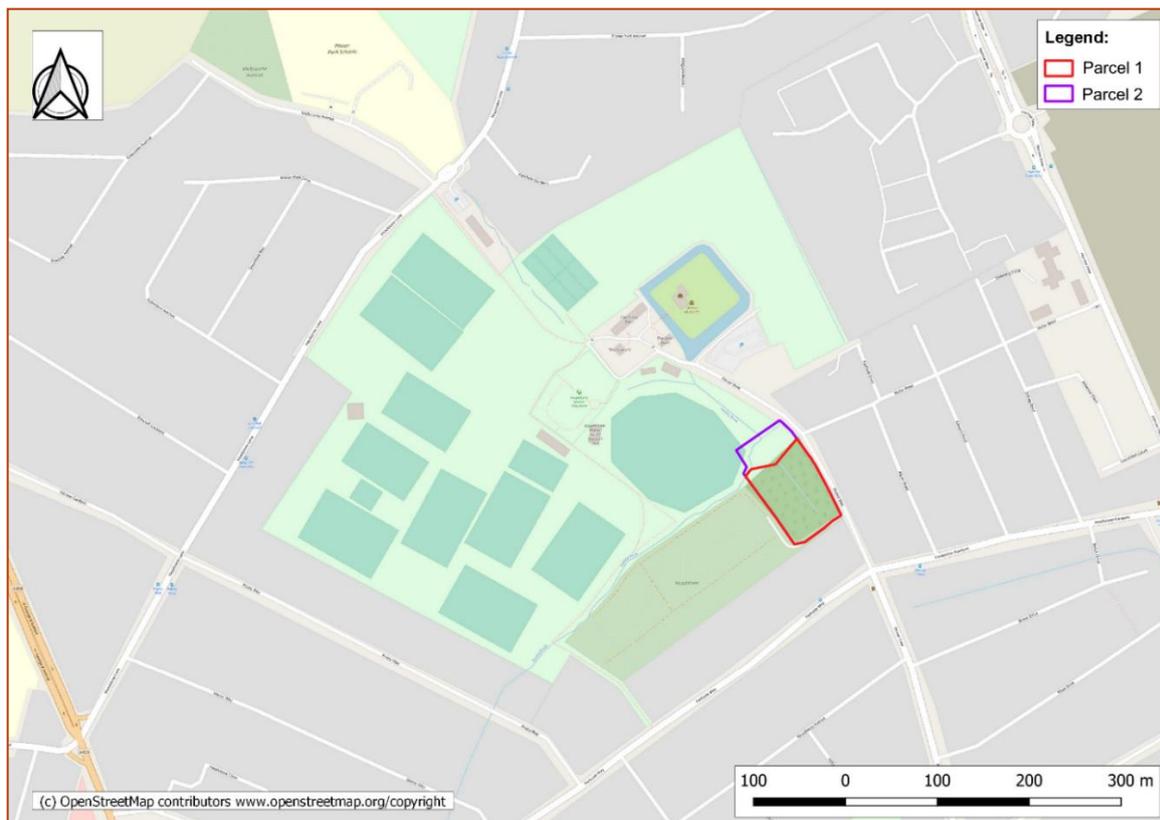
Copyright

© This Report is the copyright of Denis J Vickers. Any unauthorised reproduction or usage by any person other than the addressee(s) is strictly prohibited.

1. Introduction

- 1.1.1 This document has been prepared Denis J Vickers (Consultant Ecologist) on behalf of the Thames21. It comprises a five-year ecological management plan (EcMP), commencing in April 2021, for The Copse, part of Headstone Manor Recreation Ground. The Site is wholly owned by Harrow Council. Thames21 and Harrow Council are collaborating on a Heritage lottery-funded river restoration project to restore the Yeading Brook (itself part of the River Crane) and Headstone Manor Recreation Ground through which it flows, both people and wildlife.
- 1.1.2 For convenience, the site has been split into two parcels: Parcel 1 is to be chiefly managed by the Friends of Headstone Manor Park (FHMP) and Harrow Nature Conservation Forum (HNCF) with aid where necessary by Harrow Council; Parcel 2 is likely to be directly managed by the council. Most management prescriptions produced here can be applied to both parcels.
- 1.1.3 The EcMP regarding both parcels is largely based on the findings of a preliminary ecological appraisal undertaken by Vickers earlier in September 2020.
- 1.1.4 Headstone Manor Copse is part of Headstone Manor Recreation Ground Site of Nature Conservation (SINC) Borough Grade 2 (Hw.BII 7). Such sites are important within the whole of the London Borough of Harrow. In addition to The Copse, the SINC includes Headstone Manor Moat as well as the Yeading Brook and adjacent hedgerows (but not the park in its entirety). The context of the site is indicated in Figure 1 below.
- 1.1.5 The structure of this EcMP is as follows:
- Section 2: Describes the site context including its location and physical setting, historical development, biological features and ecological relationships;
 - Section 3: Evaluates important features and looks at site potential, management objectives and constraints; and
 - Section 4: Details management prescriptions for The Copse on a task-by-task basis and gives a schedule and summary of management projects.

Figure 1: Site context



2. Description

2.1 GENERAL

Location

2.1.1 a) The site is situated on the western side of Pinner View at the south-eastern end of Headstone Manor Recreation Ground in the London Borough of Harrow (national grid reference TQ1422389494). Pinner Road (A404) winds around the west and south of the site (closest ~900m); George Grange Way (A409) lies to the east at ~1,300m. Harrow Town Centre is located approximately 1,500m to the south.

b) Headstone Manor Recreation Ground is situated to the north of the site; there are allotments to the west; and roads and housing to the east and south (Figure 1 - above).

Access

2.1.2 Access is limited to key holders only, (authorised L B Harrow staff, contractors and volunteers), via two gates indicated in Figure 2 below.

Status

- 2.1.4 The Copse is part of Headstone Manor Recreation Ground, parts of which are designated as a non-statutory Site of Importance for Nature Conservation (SINC)¹ Borough Grade 2.
- 2.1.5 The Harrow Adopted Policies Map (2013) depicts The Copse as part of Headstone Manor Recreation Ground, an area of Metropolitan Open Land (MOL).

Ownership and Tenure

- 2.1.6 The Copse is wholly owned by the London Borough of Harrow. Management work will be undertaken by the L B Harrow and its contractors, with the support of trained volunteers from the Friends of Headstone Manor Park (FHMP) and Harrow Nature Conservation Forum (HNCF).

Survey information

- 2.1.7 1984/5 GLEU Habitat Survey; 2003 GLA Borough Habitat Survey of L B Harrow; Survey of Headstone Manor Recreation Ground SINC (Vickers D & Dobson J, 2011); Preliminary Ecological Survey (PEA) of Headstone Manor Recreation Ground, Headstone Copse (Vickers, 2020).

2.2 PHYSICAL

Geology

- 2.2.1 The site sits upon the Lambeth Group – Clay, Silt and Sand which was laid in the late Paleocene approximately 59.2 to 47.8 million years ago (British Geological Survey).

Soils

- 2.2.2 The soil type is Soilscape 18 which are slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils (Cranfield Soil and Agrifood Institute).

Topography

- 2.2.3 a) The land slopes gently from about 53m OD in the south-east corner to just over 50m to the north-east corner. An arm of the Yeading Brook becomes evident towards the southern end of the site and flows north through the centre to meet an east-west flowing stretch of the watercourse. This part of the

¹ The following grades of SINC are recognised: Metropolitan Sites (important in a London-wide context); Borough Grade 1 and 2 sites (important in a borough-wide context); and Local sites (of greatest value in a particular neighbourhood)

Yeading Brook flows towards the western edge of the site where there is a confluence with yet another westward flowing arm of the brook which marks the northern extremity of the site.

Hydrology

- 2.2.4 Site drainage is to the north and west via the various arms of the Yeading Brook which criss-cross the site (see Figure 2).

2.3 HISTORICAL

Introduction:

- 2.3.1 a) A detailed account of the historical development of Headstone Manor Recreation Ground is available in the Conservation Plan (7154-LD-REP-802) (LUC, 2018a) including parts pertaining to The Copse. Here, it is only the development of The Copse that is considered.

Development

- 2.3.2 a) Farino *et al* (1989) postulated that The Copse has possibly been continuously wooded for several centuries. The John Rocque map of 1754 shows the boundaries of three agricultural fields within the confines of the current site. It is likely these were delineated by hedgerows. The 1805 Chipping Barnet, William Hyett map also shows field boundaries as being present but not positioned quite as before (possible error?). A Plan accompanying sales particulars c.1860, but surveyed in 1853, depicts the site as wooded. A woodland takes maybe 30 years to develop from an open field and be regarded as woodland. This suggests that the woodland on site was likely to have started development circa 1823 or a little earlier. The pedunculate oak *Quercus robur* with the greatest Diameter at Breast Height (DBH) of 1250mm was selected to estimate the age of the tree using the method detailed by White, J (1998). This suggests an age of 210 years for this tree, meaning it started its growth around 1810.
- b) Between 1797-1820: Daniel Wilshin was the tenant farmer at Headstone Manor (LUC, 2018a). This corresponds with the estimated period when the land use of The Copse area was turned from fields to woodland.
- c) Midland hawthorn is a prominent component of The Copse's flora. This species is strongly associated with ancient woodland. It is likely to have been present in The Copse area pre-1800, possibly as a constituent of former field boundary hedges. It is seldom planted today but in the past was sometimes inadvertently introduced to hedges when gapping up with saplings sourced from

woodlands (Rackham, 2003). Other species may owe their origins to earlier hedgerows e.g., hazel. Farino *et al* (1989) states 'along the eastern margin grows what appears to be a very old hedgerow, now completely overgrown, and containing hazel stool poles 30cm in diameter.' Only one of these old coppiced hazel specimens remain. This hypothesis is supported by an account from the late 18th century offered by LUC (2018a): 'At the Spinney or copse in the western corner of the Recreation Ground which is now dominated by fine oak trees records show that the pigs of Headstone Farm were allowed to forage freely (i.e., pannage) here for acorn mast. There are also several 'ancient' hedgerows on site which would during this time have formed field boundaries. Continuing presence of mature oak and thorn trees indicates the former 'footprint'.' In the opinion of the author, it is unlikely that any of these trees or shrubs, other than the coppiced hazel, are survivors of 18th century hedgerows although most may owe their lineage to these features.

d) In 1853 a pond is shown to the north-west of the site within today's Parcel 2 area (Plan accompanying sales particulars, c.1860). During the period between the Ordnance Survey plans of 1912-1913 and 1938 the pond was replaced with several streams with a layout somewhat resembling that of today. It was also during this period that the southern half of The Copse site was lost to the development of housing associated with Parkside Way.

2.4 BIOLOGICAL

Vegetation

2.4.1 a) *Introduction*: This section chiefly relies on the findings of the Preliminary Ecological Appraisal (PEA) conducted by Vickers (2020).

b) The habitat descriptions below refer to the entire site. However, with reference to the area's proposed future management, two composite parcels are recognised: Parcel 1, the southern 0.61ha (75%) where management by FHMP and HNCf is proposed; and Parcel 2, the remaining 0.20ha (25%) to the north, which it seems probable will be directly managed by Harrow Council.

c) A description of the chief habitats present is given in 2.4.2 and a map indicating their extent in Figure 2 (and Appendix 1) below.

d) Trees of particular interest because of size and / or antiquity are identified via species name and DBH in millimetres in Figure 2.

e) Scientific names are used after the first mention of a vascular plant species; thereafter common names only are relied upon, nomenclature follows Stace (2019). A full list of taxa recorded appears in Appendix 3 – also indicated is the relative abundance using the DAFOR scale. For other vascular plant taxa not cited in Appendix 3 (or where there is no English equivalent), the scientific name and authorship are quoted where appropriate.

f) Sightings of birds noted during the habitat survey and priority / protected species recorded or assessed as likely to occur on site (Vickers, 2020) are discussed under section 2.5 below.

Figure 2: The Copse site plan



Brief description of site

2.4.2 This small site (0.81ha) comprises an almost rectangular block of native broadleaved woodland dominated by fine mature trees with a dense understorey of shrubs and young trees. Within the woodland bounds are the confluences of several tributaries of the Yeading Brook. The woodland has been unmanaged and closed to the public for several decades although recently there has been some limited clearance of the dense shrub layer by volunteers.

2.4.3 *Habitat descriptions (not necessarily in order of ecological importance)*

a) Broadleaved native woodland:

Pedunculate oak *Quercus robur* is dominant in the woodland including several trees of some antiquity. These are indicated on the site map (Figure 2 / Appendix 1) by a number appearing near the canopy centre – this is the DBH in millimetres according to the Arboricultural Impact Assessment (SJ Stephens Associates, 2018). Ash *Fraxinus excelsior* is abundant including some fine veterans mostly to the east and south of the site. Field maple *Acer campestre* is frequent including several specimens with a DBH of ~500mm which is quite significant for this species. Other tree species include frequent wild cherry *Prunus avium* and yew *Taxus baccata*; occasional sycamore *Acer pseudoplatanus* and rowan *Sorbus aucuparia*; and rare silver birch *Betula pendula* and crack willow *Salix euxina* aside the Yeading Brook to the north.

b) Shrub layer:

This comprises abundant holly *Ilex aquifolium*; frequent bramble *Rubus fruticosus* agg. and midland hawthorn *Crataegus laevigata* (this species is often associated with ancient woodland); occasional cherry laurel *Prunus laurocerasus*, blackthorn *P. spinosa*, hawthorn *Crataegus monogyna*, elder *Sambucus nigra* and elm *Ulmus* sp. suckers of various sizes. Hazel *Corylus avellana* is also occasional including at least one coppiced specimen of antiquity as well as saplings. One example of butterfly-bush *Buddleja davidii* is found at the northern edge of the site (next to Pinner View).

c) The ground flora is dominated by ivy *Hedera helix* which not only covers large tracts of the woodland floor but is reaching high into trees too. Cow parsley *Anthriscus sylvestris*, herb Robert *Geranium robertianum* and common nettle *Urtica dioica* are frequent with some extensive patches present. Occasional species are garlic mustard *Alliaria petiolata*, wood avens *Geum urbanum*, clustered dock *Rumex conglomeratus* and red campion *Silene dioica*. Other

species include hedge bindweed *Calystegia sepium*, creeping thistle *Cirsium arvense* (near eastern edge of site) and cleavers *Galium aparine*.

b) Running water

Overall, the various tributaries of the Yeading Brook within The Copse are flowing in steeply banked shady channels. Consequently, only pendulous sedge is abundant both within and at the edges of the channels. Other species include ivy, bramble and a little wood sedge *Carex sylvatica*.

2.5 FAUNA

2.5.1 The following species were identified on site during the 07-09-2020 survey:

- Birds:
 - Wren *Troglodytes troglodytes*
 - Blackbird *Turdus merula*
 - Robin *Erithacus rubecula*
 - Woodpigeon *Columba palumbus*
 - Magpie *Pica pica*
 - Carrion crow *Corvus corone*

All species are geographically widespread with suitable habitat present on site to support breeding.

- Butterflies:
 - Small white *Pieris rapae*
 - Speckled wood *Pararge aegeria*

Priority / protected species

2.5.2 a) The Preliminary Ecological Appraisal conducted by Vickers (2020) regarded several species in this group as present or assessed them likely to be present. These species are considered in the preparation of this management plan:

b) Bats are highly likely to forage and commute along lines of trees and shrubs. Additionally, bats are likely to roost on site in the longer established trees with suitable voids and / or dense coverings of ivy.

c) Hedgehog *Erinaceus europaeus*: Highly likely to visit the site e.g., taking sanctuary in woodland and foraging in adjacent parkland and allotments. Although considered a little less likely they may also nest in suitable vegetation in areas of woodland and scrub.

e) Breeding birds are highly likely to be present: As well as common garden species (like those listed under 2.5.1) their numbers are also highly likely to include species of conservation concern such as the Red listed starling *Sturnus vulgaris*, song thrush *Turdus philomelos* and mistle thrush *T. viscivorus*; and Amber listed dunnock *Prunella modularis*.

f) Amphibians: common frog *Rana temporaria*, particularly, is most likely to visit the site taking sanctuary in damp vegetation. Foraging is more likely to occur within the nearby allotments.

g) Stag Beetle *Lucanus cervus*: probably present. Associated with woodland and particularly decay wood.

h) Notable trees and shrubs: Ten pedunculate oak and two ash trees with a DBH of 900mm or greater and one coppiced hazel are of some antiquity. Several Midland hawthorn shrubs are also present – the lineage of which probably predates The Copse itself (2.3.2b above).

2.6 ECOLOGICAL RELATIONSHIPS

woodland

- 2.6.1 a) The Copse area ceased being managed as agricultural fields circa 1800. From that point on trees and shrubs which comprised the hedgerows would have colonised adjacent open areas as succession took place. Pannaging by pigs was practiced during Daniel Wilshin tenancy (1797-1820). This would have encouraged the spread of pedunculate oak in particular. The seeds of other trees and shrubs would have been distributed chiefly by birds and wind (and occasionally mammals). As the woodland matured and become dominated by tall oak and ash, some species with a greater requirement for light, such as common hawthorn, blackthorn, wild cherry, elder, rowan and birch would have gradually decreased in more central areas. Butterfly-bush is a more recent colonist associated with bright sunlight and only occurs at the site's edge. Conversely, the shade tolerant midland hawthorn would have gained a competitive advantage in these conditions and taken the opportunity to flower, fruit and proliferate. Other shade tolerant species are field maple, holly, yew and cherry laurel.
- b) The Headstone Manor Park Conservation Plan (LUC, 2018a) states that in 1854 there was a liberal distribution of elm as well as oak in the tall hedgerows which delineated field boundaries of the Headstone Manor Farm complex. Many

elms (as well as oak) are like to have reached maturity. However, because of Dutch Elm Disease² these are now only represented by suckers. This disease is still active it and it constrains elm suckers to a maximum height of about 5m. Additionally, elm prefers sunlit positions so will be healthier at site edges or where the canopy is thinner. Coppiced trees and shrubs need to be cut back periodically if they are to thrive. Being unmanaged the old specimens of coppiced hazel referred to by Farino *et al* (1989) all bar one, have collapsed and died. This will have been made worse by shady conditions which would have prompted hazel poles to extend towards sunlight thus hastening their demise.

c) The ground flora of The Copse is dominated by (shade tolerant) ivy together with bramble and patches of bare earth. Species which require higher light levels generally occur at the edges of the site or within the few limited places where the canopy is more open e.g., garlic mustard, wood avens, clustered dock and red campion. Where there is occasional full sunlight these species are joined by hedge bindweed, creeping thistle and cleavers.

Watercourses

- 2.6.2 The deep channels of the Yeading Brook are prominent within the site. They are heavily shaded and subject to occasional disturbance (when cleared out). These conditions have led to a dominance of moisture-loving pendulous sedge which characterises these features.

² There were two waves of the disease during the 20th century (Rackham, 1986). The first was noticed in Britain in 1927 and reached its peak in 1936; A second, more virulent, wave was first noticed in 1965.

3. Analysis and Establishment of Management Aims

3.1 EVALUATION OF IMPORTANT FEATURES

3.1.1 A number of locally notable, priority and / or protected species are present or potentially present on site:

a) Bats – protected species – highly likely to forage / commute in local area along lines of trees and the Yeading Brook. Roosting on site in old trees with suitable voids or a dense cladding of ivy is also considered highly likely.

b) Hedgehog *Erinaceus europaeus* – priority species in England³ & LBAP⁴ - highly likely to forage within adjacent parkland and allotments. Nesting on site is considered a moderate possibility.

c) Breeding birds – can be considered as present (highly likely to include Red & Amber Species of Conservation Concern⁵).

d) Common frog *Rana temporaria* – Species of Conservation Concern in London – likely to be present in adjacent allotments and parkland. May use damp vegetation on site for harbourage.

e) Stag beetle *Lucanus cervus* – priority species in England & LBAP – should be considered present.

f) Notable oak and ash trees (defined by the author as having a DBH of 900mm or greater), and old hazel coppice – these are of particular biodiversity value in the local and borough context

g) Field maple, midland hawthorn and wood sedge are considered as ancient woodland indicator (AWI) species in South-East England (Rose, 1999)

Secondary woodland

3.1.2 Woodland is a habitat of local significance and a Biodiversity Action Plan habitat in Harrow (Harrow Council, 2015). It is also a London regional Biodiversity Action Plan (BAP) target habitat (Mayor of London, 2016). The secondary woodland of The Copse is dominated by pedunculate oak. It is likely to support a variety of birds and invertebrates as well as mammals such as bats and hedgehog.

³ Sect.41 = Section 40 & Section 41 of the Natural Environment & Rural Communities Act 2006

⁴ LBAP = Local (London) Biodiversity Action Plan species

⁵ IUCN (Mark Eaton *et al*, 2015)

Running water

- 3.1.3 Many rivers and streams within Harrow are underground (piped) and there are no large water courses in the borough although tributaries of the Rivers, Brent, Crane and Colne rise in the area and are counted by the Environment Agency (EA) as major rivers. Additionally, many Harrow watercourses flow through concrete channels and as a result are of limited biodiversity value. Only about 0.25% of the borough's surface area is attributed to 'running water' which is a Harrow LBAP habitat and London regional BAP target habitat (Mayor of London, 2016).

Decay wood

- 3.2.4 Decay wood of all types, but particularly standing is a valuable habitat and asset for a variety of fauna. For example, woodpeckers, nuthatch and treecreeper are often dependent on this resource for foraging and nesting. Additionally, many insects including Nationally Scarce species such as stag beetle are associated with decay wood. Many species of fungi are completely dependent on decay wood.

Ivy-clad trees

- 3.1.5 Ivy is a valuable resource during the autumn and winter months providing a late source of nectar for insects and foraging and shelter for birds at a time of year when deciduous trees are dormant. Dense coverings of ivy in trees may also provide limited summer roost potential for bats.

3.2 SITE POTENTIAL

- 3.2.1 Management of the woodland presents an opportunity to enhance habitat diversity. This could include:
- Establishing woodland glades which will present an opportunity for the emergence of dormant ground flora and allow new species to move in and flourish.
 - Creation of graded woodland edge habitats in selected places. This would make the site more attractive invertebrates and birds some of which are likely to be species of conservation concern.
- 3.2.2 This is a small site, there is an opportunity to minimise any adverse impact on biodiversity which could be caused through overuse by:
- Limiting access to key holding volunteer groups FHMP and HNCF, council staff and contractors.

- Discouraging all but essential access to two or three areas of Parcel 1 which will provide sanctuary for more sensitive fauna (e.g., invertebrates, small mammals and breeding birds).
 - Limiting the impact of trampling on the site by the establishment of a suitable footpath through the woodland.
- 3.2.3 There is potential to increase the area of woodland accessible to key holders by providing safe access to Parcel 2 via an appropriate bridge across the Yeading Brook.
- 3.2.4 There is an opportunity to control damaging or potentially invasive plant species on site. Currently this is limited to cherry laurel which is of occasional occurrence throughout the woodland (but highly invasive in London). It is essential to keep such species from increasing at the expense of less competitive regenerating native shrubs, trees and wildflowers.
- 3.2.5 There is potential to make good use of decay wood on site by utilising fallen tree limbs (or those removed via essential tree surgery) to build loggeries for stag beetles and hibernacula for amphibians. Brushwood arising on site (e.g., from clearing glades) could be used to construct dead hedges deter access to sanctuary areas.
- 3.3.6 Decay wood habitats could be enhanced by importing suitable hardwood logs from other parts of Headstone Manor Recreation Ground.
- 3.2.7 The lifespan of the site's one remaining coppiced hazel could be extended by introducing a new management regime which would see staggered coppicing recommenced over the period of the management plan.
- 3.2.8 Roosting for bats and additional nesting opportunities for birds can be provided by careful selection and location of bat boxes and bird nest boxes for appropriate species.
- 3.2.9 There is potential to create additional habitat for birds and insects by planting a native hedge along the perimeter of Parcel 1 with Pinner View and at the southern edge of the site. The species selected should be native with a dominance of appropriate flowering and fruiting species. Establishment of such a hedge could also present future opportunities to involve volunteers in a traditional country craft, hedge laying.

3.2.10 There is an opportunity to encourage the FHMP and HNCF and other volunteers assisting in site management, to undertake biological recording and monitoring. This is essential to assess the effectiveness of works being undertaken and to make adjustments to the management programme if so required.

3.2.11 Use of the site can present training opportunities for volunteers in the use of tools, management techniques and wildlife identification.

3.3 MANAGEMENT OBJECTIVES

3.3.1 Management at The Copse should reflect the priorities for action regarding species of conservation concern in England and targets set in local BAPs. Additionally, it should aim to enhance and maintain the general qualities of existing habitats whilst re-establishing others, appropriate to the site. This should be achieved by carrying out the following actions⁶:

- Removal of any dumped materials aside Pinner View.
- Creation of woodland 'sanctuary' areas.
- Tree / scrub thinning would allow more light to penetrate the canopy and provide opportunities for a more abundant and diverse ground flora to develop, whilst diversifying the woodland structure, for example:
 - Control / removal of all cherry laurel and sycamore to help open up the woodland.
 - Removal of 50% of holly from the woodland shrub layer (other than in the sanctuary areas).
 - Creation of two small glades.
 - Limited clearance of selected shrubs aside the Yeading Brook to encourage a more diverse marginal vegetation.
- Establishment of an informal footpath (e.g., surfaced with wood chippings) through the woodland of Parcel 1. This will help avoid the trampling of any delicate ground flora.
- Extension of the informal path to Parcel 2 via a suitable bridge if seen as appropriate.

⁶ Many of these actions can be extended to Parcel 2 if felt to be appropriate by Harrow Council

- Use of fallen tree limbs (or those removed via essential tree surgery) to build loggeries for stag beetles and hibernacula for any amphibians using the site.
- Retention of all standing decay wood (e.g. monoliths) and ivy-clad trees where it is safe to do so.
- Use of brashings arising from glade clearance to help form woodland sanctuary areas (e.g., dead hedging).
- Establish an appropriate management regime for the veteran coppiced hazel. This will involve a gradual reintroduction of coppicing with the aim of conserving this valuable specimen.
- Take cuttings of hazel and midland hawthorn and encourage to root. Allow to grow on and replant in selected areas of the woodland to diversify the woodland shrub layer.
- Erection of bird and bat boxes in suitable locations to increase roosting and nesting niches. The choice, number and locations of boxes should be guided via the findings of the bird and bat surveys recommended in 5.2 above.
- Plant perimeter hedges in selected locations aside Pinner View and along entrance track to allotments. Species (blackthorn, hawthorn, field maple and hazel) should be of native origin.

3.4 MANAGEMENT CONSTRAINTS

- 3.4.1 The current Coronavirus pandemic and the impact on the national and local economies means that the rate of progression of some management projects may be held back by restrictions in funding and possibly labour.

4. Management Prescription

4.1 RECOMMENDED ACTION PARCELS 1 & 2

Phase 2 Biodiversity Surveys

- 4.1.1 a) [Parcels 1 & 2]. Breeding bird, bat and woodland ground flora surveys are strongly recommended at the beginning of the management plan period (the earlier the better). The results of these surveys will help fine tune subsequent management prescriptions relating to these species. An invertebrate survey concentrating on saproxylic species is also recommended. Survey will help inform effectiveness of management in protecting and enhancing decay wood habitats.
- b) A breeding bird survey (BBS) is recommended using British Trust for Ornithology (BTO) methodology. A reconnaissance survey should be undertaken in March (just before the management plan becomes active), an early season visit from early April to mid-May and a late season visit at least four weeks after the early season visit. Each visit should take place before 09:00. Further details are found at:
https://www.bto.org/sites/default/files/bbs_instructions_2018.pdf
- c) Emergence / re-entry surveys identifying any bat roost sites are recommended following the Bat Conservation Trust's Good Practice Guidelines (Collins J, (ed.), 2016). This survey should establish the location(s) and type of any roosts present. Bat surveys should also include an appraisal of bat foraging and commuting in the vicinity and identify areas of particularly sensitivity to disturbance and suggest appropriate safeguarding concerning future activities. A Natural England licensed bat ecologist should carry out this work. The ecologist should also judge the degree of survey effort required. Bat surveys must be undertaken between May and September inclusive with at least one visit between May and August.
- d) A survey of ground flora should be undertaken during the spring (preferably May). This should investigate any coverage of ancient woodland indicator species (AWIs).

Survey of saproxylic invertebrates

- 4.1.2 [Parcels 1 & 2]. An invertebrate survey is recommended particularly concentrating on saproxylic species – this should be undertaken by a *bona fide*

entomologist as per his/her recommendations. This is considered a lower priority than the two surveys previously discussed.

Removal of any dumped materials aside Pinner View

- 4.1.3 [Parcels 1 and 2]. This task should be of high priority probably best undertaken when the roadside fence is replaced or with a grab lorry. This work should be conducted in April subject to breeding birds not being present (a reconnaissance survey is recommended for March just prior to the commencement of the management plan – 4.1.1b)

Selection and creation of Sanctuary areas

- 4.1.4 a) [Parcel 1] Potential areas are indicated in Appendix 2. Their suitability as sanctuary areas should be assessed early in the first year of management with a decision taken on their extent taken in September / October.
- b) Access to sanctuary areas should be avoided and discouraged via the use of dead hedging comprising brushings obtained from glade creation and woodland thinning. Native trees and shrubs can be translocated from glade areas to reinforce the woodland density in sanctuary areas. The intention is that these areas will offer relatively undisturbed habitats for invertebrates, birds and small mammals.

Creation of two small glades

- 4.1.5 [Parcel 1]. Two small woodland glades should be created (suggested locations in Appendix 2). Work should be undertaken over the late autumn / early winter months during year 1 of the management plan and comprise items 4.1.6 to 4.1.9 below.

Removal of non-native shrubs and trees

- 4.1.6 [Parcels 1 & 2]. Overall, the woodland requires some thinning out. Removal of all cherry laurel (a highly invasive species in London) and sycamore should take place. Logs can be used for habitat creation projects (4.1.16) and brushings translocated to the sanctuary areas (4.1.9). Stumps will require treatment with herbicide. October / November of the first year of management is suggested for this task.

Thinning of holly

- 4.1.7 [Parcels 1 and 2]. Removal of 50% of holly from the woodland shrub layer from October to February during the first two years of management. Not applicable to sanctuary areas which should only be used as receptors for cut holly.

Translocation of native saplings

- 4.1.8 [Parcel 1]. Saplings can be translocated from new glade areas to sanctuary areas (particularly midland hawthorn and hazel). It is recommended that this task takes place over the first two years of the management plan during November / December.

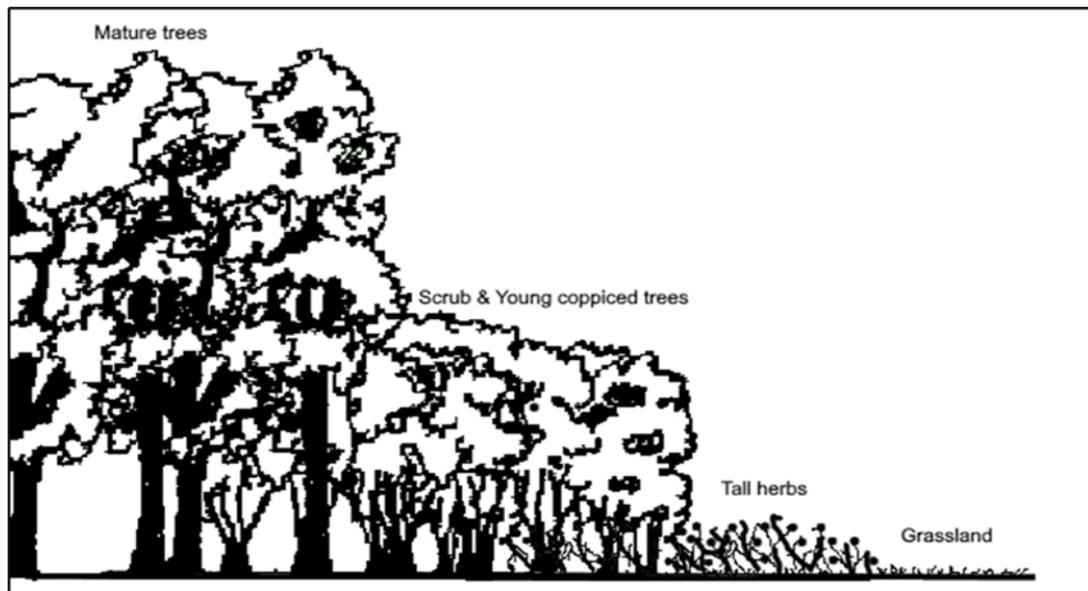
Use of brashings

- 4.1.9 [Parcel 1]. Other brashings such as bramble should be used to weave into dead-hedging thus further deterring access to sanctuary areas. November to February in the first year of the management plan is suggested for this action.

Create woodland edge habitats

- 4.1.10 [Parcel 1]. The edges of the glades can be graded as suggested in Figure 3 below which will benefit a variety of wildlife. This can also be applied to limited sections of the banks of the Yeading Brook. This work should be undertaken between September and November from year 2 of the management plan onwards.

Figure 3: Graded woodland edge



Establishment of an informal footpath (1)

- 4.1.11 [Parcel 1]. Lay a path surfaced with wood chippings through the woodland of Parcel 1 (an indicative route appears in Appendix 2). This route should be planned and established in the spring of years 1 to 3 during April / May when avoiding any delicate woodland ground flora is more easily avoidable.

Bridge construction

- 4.1.12 Bridge constructed between Parcels 1 & 2 into north of the site (if the project is felt to be appropriate to Harrow Council). As the Yeading Brook is quite steep sided the bridge should be provided with handrails (~1m height). March in years 2 to 4 would be appropriate for this action.

Establishment of an informal footpath (2)

- 4.1.13 [Parcel 2]. Construct a path extension surfaced with wood chippings through Parcel 2 assuming Harrow Council find the project appropriate in this particular area. The path (an indicative route appears in Appendix 2) should be planned and constructed in the during April / May of years 2 to 4 of the management plan. This will aid identification and thus avoidance of delicate woodland ground flora (particularly any ancient woodland indicator species).

Management of old specimen of coppiced hazel

- 4.1.14 [Parcel 1]. Coppicing should be recommenced starting with the oldest branches first (these are prone to collapse under their own weight). Cutting (near to the stool) should take place from November to February each year over the five-year period of the management plan. Thereafter, new growth with a diameter of greater than 5cm at chest height should be considered for removal. This will reduce the overall size of the shrub's crown. Old wood removed should be built into habitat piles or incorporated into loggeries and hibernacula in the adjacent woodland (4.1.16 below).

Ensure adequate decay wood on site

- 4.1.15 [Parcel 1]. Decay wood (once referred to as 'deadwood') should not be removed from site. Instead, larger pieces can be used in constructing loggeries, hibernacula and habitat piles. As most of the site's woodland and scattered trees are relatively young, decay wood is at a premium. Therefore, it should be supplemented with more substantial hardwood logs brought in from other parts of Headstone Manor Recreation Ground or other Harrow open spaces. Brushings arising on site can be used in building dead-hedges in sanctuary areas (4.1.9).

Construction of loggeries, habitat piles and hibernacula

- 4.1.16 [Parcel 1]. If undertaken with due consideration (e.g., not adjacent to nesting birds) these refuges for invertebrates and amphibians can be constructed any time of year throughout the period of the management plan. Their construction will also utilise decay wood arising from other projects or specifically imported to

the site (4.1.15 above). More information on the construction of loggeries and hibernacula is available in Appendices 4 and 5.

Maintaining ivy-clad trees

- 4.1.17 [Parcels 1 & 2]. Ivy festooned trees and shrubs are a valuable resource for wildlife all year round but particularly during the autumn and winter months. It provides a late source of nectar for insects and foraging and shelter for birds at a time of year when deciduous trees are leafless and dormant. Additionally, it can provide summer roost sites for bats. There should be a positive effort to retain it wherever possible. It should only be removed where its presence in trees might lead to instability in windy conditions which may pose a safety problem for people.

Identify suitable locations for and erect appropriate bird and bat boxes

- 4.1.18 a) [Parcels 1 & 2]. Opportunities for bird nesting and bat roosting on site can be bolstered. Suitable trees should be identified and fitted with appropriate boxes. Identification of suitable locations and erection of bird and bat boxes should take place between September and February (outside the bird breeding season) within the active period of this management plan. A breeding bird survey and a bat survey (4.1.1) would help in identifying which species to cater for.
- b) bird boxes should be fitted to suitably located trees at a minimum of 3m height. A clear flightpath towards each box should be available and they should face between the north and east to avoid too much sunlight and the wettest winds. Boxes which provide additional nesting opportunities for appropriate Birds of Conservation Concern (BoCC) should be chosen e.g., dunnock, starling and song thrush. Nest boxes for more common garden birds could also be provided.
- c) Bat boxes should be placed securely at a minimum height of 3m in suitable trees but should not face north. Schwegler woodcrete Brick box No.27 for bats or 1FR bat tubes could be used. Ideally the boxes should face south, south-east and south-west. Care should be taken to ensure that the entrances to bat boxes are not obstructed (i.e., a clear flight path is possible).
- d) Bat and bird boxes should be checked for use each year. Birds will be seen regularly entering with nesting material and food during the spring. Bats are less obvious: look out for droppings, urine staining, listen for 'chattering' and watch the box for at dusk to observe any bats leaving to feed. Bats are active between March and October. Do not disturb any box if possibly in use.

Perimeter hedge planting

4.1.19 a) [Parcel 1]. Planting of a new hedge consisting of mixed flowering, fruiting and other wildlife attracting species is recommended to appeal to a variety of fauna, particularly invertebrates and birds. It should be located along the perimeter of Parcel 1 with Pinner View and at the southern edge of the site (see Appendix 2). The hedge should comprise native species appropriate to the area such as hawthorn, field maple, hazel and blackthorn. Planting should take place between November and February of years 2 and 3. This will allow for replanting individuals if required during the period of the management plan.

b) To successfully establish a hedge it must be managed, this is usually achieved by trimming. Hedges can also be laid and later trimmed as appropriate. Hedge laying is an excellent way of involving volunteers in a traditional country craft. The starting height of the hedge should be about 2m to 5m and the thickness of stems at ground level between 5-10cm.

Biodiversity monitoring

4.1.20 [Parcels 1 & 2]. FHMP and HNCf or other local people who have particular wildlife knowledge and experience, could put this to good use by carrying out regular monitoring of the site e.g., butterfly transects (spring to early autumn), bird transects (all year) etc. Results of monitoring should be sent to Greenspace Information for Greater London (GiGL) the biological records centre for the capital. Monitoring will also provide a baseline from which changes in biodiversity value can be followed and the effectiveness of site management assessed and adjusted if so required.

FHMP, HNCf and other volunteer groups

4.1.21 [Parcel 1]. The site can present training opportunities for volunteers in the use of tools, management techniques and wildlife identification. Regularly held workdays, well-led and with clear objectives in mind, would attract a regular group of volunteers dedicated to the site's conservation. Trained volunteers could undertake many of the tasks highlighted in this management plan with only minimal intervention from Council staff and contractors for specific tasks. If required (and the budget allows) the services of The Conservation Volunteers (TCV) could also be enlisted. Local naturalists are likely to be amongst regular volunteers, who could progress biological recording of the area and monitor the effects of management on this site's flora and fauna.

4.3 FIVE YEAR MANAGEMENT PLAN: SCHEDULE AND SUMMARY OF PROJECTS

		Parcel 1	Parcel 2		Five-years: April 2021-March 2026	Timing Inclusive	
--	--	----------	----------	--	-----------------------------------	------------------	--

No.	Actions	Priority		Start					End	Notes	Report section		
		1	2	1	2	3	4	5					
1	Phase two biodiversity surveys of breeding birds, bats and ground flora			1						See notes	See notes	Phase 2 surveys conducted early on will help inform site management. Of highest priority are: Breeding bird survey (three visits March to mid-June) Bat survey (May to August), ground flora surveys (May)	4.1.1
2	Saproxyllic invertebrate survey			2						See notes	See notes	Survey will help inform effectiveness of management in protecting and enhancing decay wood habitats. Timing as directed by entomologist	4.1.2
3	Removal of any dumped materials aside Pinner View			1						4	4		4.1.3
4	Selection & creation of sanctuary areas			1						9	10	Areas (indicated in Appendix 2) will be used to accommodate brushings and planting arising from the creation of glades	4.1.4
5	Creation of two small glades			1						10	11	Areas indicated in Appendix 2.	4.1.5
6	Removal of non-native shrubs & trees			1						10	11	Control / removal of all cherry laurel and sycamore to help open up the woodland. To be applied throughout the woodland. Logs and brushings to be relocated to sanctuary areas	4.1.6

No.	Actions	1		Priority	2					Start	End	Notes	Report section
		1	2		1	2	3	4	5				
7	Thinning of holly			2						10	2	Removal of 50% of holly from the woodland shrub layer. Not applicable to sanctuary areas which should only be used as receptors for cut holly.	4.1.7
8	Translocation of native saplings			2						11	12	Translocation of native saplings to sanctuary areas to reinforce tree / shrub density in in these areas	4.1.8
9	Use of brashings			1						11	2	Use of brashings arising from glade creation to help form woodland sanctuary areas (e.g., dead hedging)	4.1.9
10	Create woodland edge habitats			2						9	11	Create graded woodland edge habitats in selected places (e.g., glade edges). This can also be applied to limited sections of the banks of the Yeading Brook. This would make the site more attractive invertebrates and birds some of which are likely to be species of conservation concern.	4.1.10
11	Establishment of an informal footpath (1)			2						4	5	Path surfaced with wood chippings through the woodland of Parcel 1. This will help avoid the trampling of any delicate ground flora	4.1.11
12	Bridge construction			3						3	3	Bridge constructed between Parcels 1 & 2 into north of the site if felt to be appropriate to Harrow Council	4.1.12
13	Establishment of an informal footpath (2)			3						4	5	Extension of path surfaced with wood chippings into Parcel 2 if felt to be appropriate to Harrow Council	4.1.13
14	Management of old specimens of coppiced hazel			1						11	2	A programme of recoppicing the previously coppiced specimen of hazel should be commenced. This will involve the cutting of existing poles, little by little over the period of this management plan.	4.1.14

No.	Actions	1	2	Priority	1	2	3	4	5	Start	End	Notes	Report section
15	Ensure adequate decay wood on site									Ongoing	Ongoing	Decay (i.e., dead) wood should not be removed from site. Instead, larger pieces can be used for constructing loggeries, hibernacula and habitat piles. This should be supplemented with more substantial logs brought in from other parts of Headstone Manor Recreation Ground	4.1.15
16	Construction of loggeries, habitat piles and hibernacula			2						Ongoing	Ongoing	See 15 above and Appendices 4 and 5.	4.1.16
17	Maintaining ivy-clad trees			1						Ongoing	Ongoing	Safety is a prime consideration. Monolithing should be considered regarding larger trees	4.1.17
18	Erection of bird and bat boxes			3						9	2	In suitable locations to increase roosting and nesting niches. The choice, number and locations of boxes should be guided via the findings of the bird and bat surveys recommended in 1 above.	4.1.18
19	Perimeter hedge planting			3						11	2	Plant a native hedge along the perimeter of Parcel 1 with Pinner View and at the southern edge. The species selected should be native with a dominance of appropriate flowering and fruiting species. Establishment of such a hedge could also present future opportunities to involve volunteers in a traditional country craft, hedge laying.	4.1.19
20	Biodiversity monitoring			1						Ongoing	Ongoing	Encourage the FHMP and HNCF and other volunteers in assisting in site management, to undertake biological recording and monitoring. This is essential to assess the effectiveness of works being undertaken and to make adjustments to the management programme if	4.1.20

No.	Actions	1	2	Priority	1	2	3	4	5	Start	End	Notes	Report section
												required	
21	FHMP, HNCF and other volunteer groups			2						Ongoing	Ongoing	The site can present training opportunities for volunteers in the use of tools, management techniques and wildlife identification	4.1.21

Priority: 1=high, 2=Medium, 3=Low

Timing: Start & End = Time of year for management 1=January; 2=February etc.

Orange: Parcel where management action is required

Orange hatched: Parcel management action to be agreed with Harrow Council

Years: Blue coloured cells = strongly recommended year for action

Years: Hatched blue cells = suggested year(s) for action

Report section = refer to appropriate report paragraph

Management Plan period 5 years from April 2021 to March 2026

5. References

- British Geological Survey (BGS).** *Geo Index Onshore*. [online] Available at <http://mapapps2.bgs.ac.uk/geoindex/home.html> [Site accessed 18-01-2021]
- Burton R M, 1983.** *Flora of the London Area*. London Natural History Society
- Cranfield Soil and Agrifood Institute.** *Soilscapes*. [online] Available at <http://www.landis.org.uk/soilscapes/> [Site accessed 18-01-2021]
- Farino T, Pagendam C, Swales S & Frith M, 1989.** *Nature Conservation in Harrow – Ecology Handbook 13*. London Ecology Unit
- Harrow Council, 2011.** Management Plan: Headstone Manor Recreation Ground Local Wildlife Site April 2011 – March 2016
- Harrow Council, 2013.** *Harrow Adopted Policies Map*. [online] Available at: <https://www.harrow.gov.uk/downloads/file/26706/adopted-policies-map-2> [Accessed 18-01-2021]
- Harrow Council, 2015.** *Harrow Biodiversity Action Plan 2015 – 2020. Moving forward: stepping stones and nature networks* [Online] Available at: <https://www.harrow.gov.uk/downloads/file/23181/harrow-biodiversity-action-plan> [Accessed 18-01-2021].
- London Biodiversity Partnership.** *London BAP Priority Habitats*. [online] Available at: <https://www.gigl.org.uk/london-bap-priority-habitats/> [Accessed 18-01-2021]
- London Invasive Species Initiative, 2013.** Species of Concern. [online] Available at: <http://www.londonisi.org.uk/tackling-inns/lisp/> [Accessed 18-01-2021]
- LUC, 2018a.** *Headstone Manor Park Conservation Plan (7154-LD-REP-802)*. HLF Parks for People Programme, London Borough of Harrow, February 2018.
- LUC, 2018b.** *Headstone Manor Park Management and Maintenance Plan (7154-LD-REP-805)*. HLF Parks for People Programme, London Borough of Harrow, February 2018.
- Mark Eaton, Nicholas Aebischer, Andy Brown, Richard Hearn, Leigh Lock, Andy Musgrove, David Noble, David Stroud & Richard Gregory.** *Birds of Conservation*

Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man.
British Birds 108, December 2015, 708–746.

Mayor of London, 2011. *The London Plan*. [online] Available at:

<https://www.london.gov.uk/what-we-do/planning/london-plan/current-london-plan>

[Accessed 18-01-2021]

Rackham, O, 1986. *The History of the Countryside*. J. M. Dent.

Rackham, O, 2003. *Ancient Woodland its history, vegetation and uses in England* (New Edition). Castlepoint Press.

Rose, F, 1999. *Indicators of ancient woodland - The use of vascular plants in evaluating ancient woods for nature conservation*. British Wildlife, April 1999 pp 241-247.

Stace, C.A., 2019. *New Flora of the British Isles* (4th Ed.). C & M Floristics, Suffolk

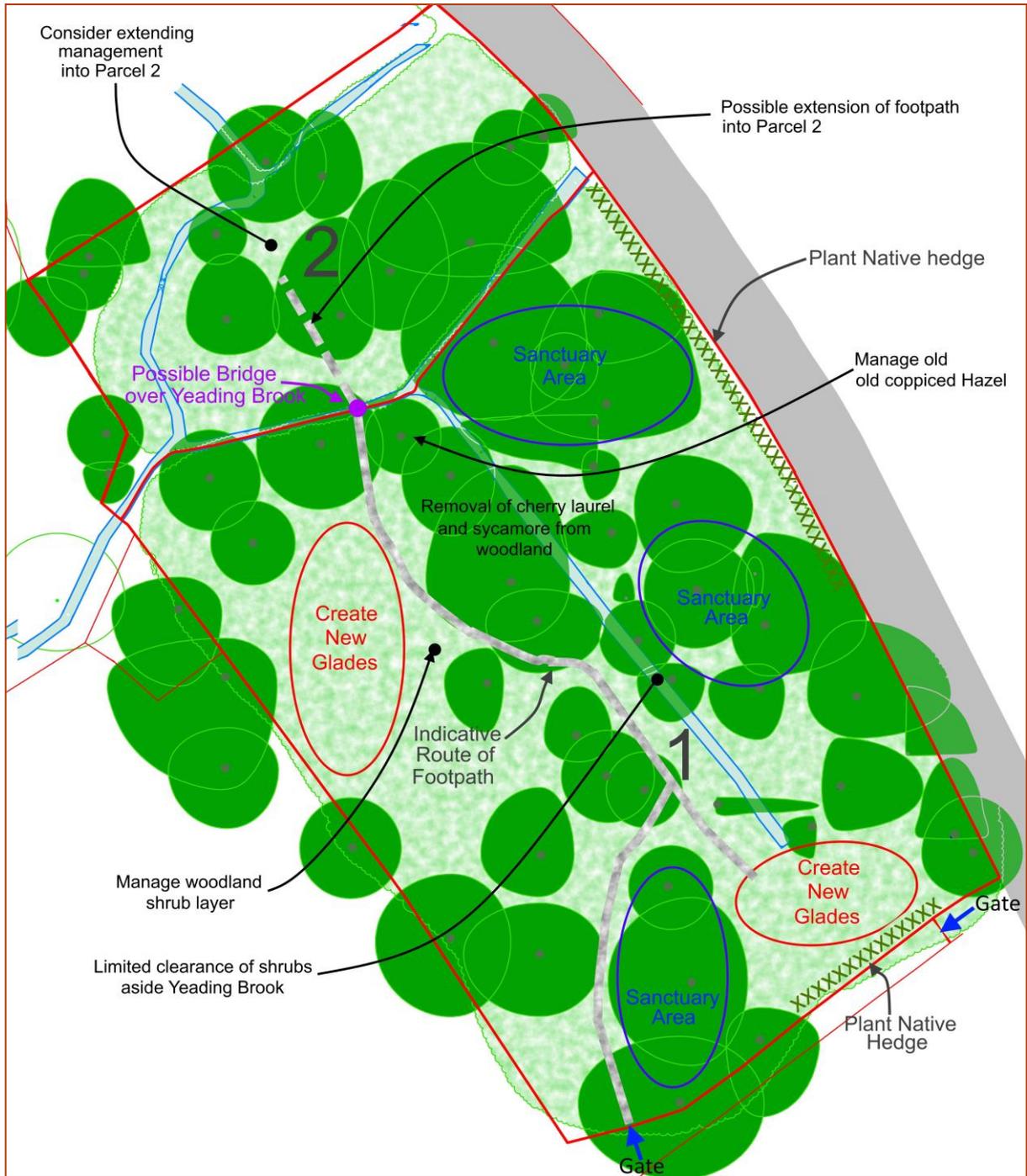
Vickers D J, 2020. *Headstone Manor Recreation Ground, The Copse: Preliminary Ecological Appraisal*. Report for Thames21.

White J, 1998. *Estimating the Age of Large and Veteran Trees in Britain*. Information Note issued by Forestry Practice, Forestry Commission. November 1998.

Appendix 1: Site plan



Appendix 2: Site plan showing management



Appendix 3: Vascular plants recorded

Species lists (vascular plants) recorded on the 3rd of September 2020.

Abbreviations:

Relative abundance (DAFOR):

D: Dominant; A: Abundant; F: Frequent; O: Occasional; R: Rare

Qualifiers:

T=Mature tree; Y=Young Tree; S=Seedling or sapling; W=Wet area or hollows; C=Clumped; P=Planted; E=Edge; F=Footpath; ?=Identification requires confirmation

Parcels:		Parcels 1 & 2				
Common name	Scientific name (Stace 4)	DAFOR	Qualifiers			Notes
			1	2	3	
Field Maple	<i>Acer campestre</i>	F	s	y	t	Some quite old specimens present
Sycamore	<i>Acer pseudoplatanus</i>	O	s	y		
Garlic Mustard	<i>Alliaria petiolata</i>	O				
Cow Parsley	<i>Anthriscus sylvestris</i>	F				Extensive in places
Lords-and-Ladies	<i>Arum maculatum</i>	O				
Silver Birch	<i>Betula pendula</i>	R	y			
Butterfly-bush	<i>Buddleja davidii</i>	R	e			LISI invasive species
Hedge Bindweed	<i>Calystegia sepium</i>	O	e			
Pendulous Sedge	<i>Carex pendula</i>	A	w			Particularly in and aside Yeading
Wood-sedge	<i>Carex sylvatica</i>	R	w	?		Indicator of ancient woodland
Creeping Thistle	<i>Cirsium arvense</i>	O	c			
Hazel	<i>Corylus avellana</i>	O				Includes one old coppiced specimen
Midland Hawthorn	<i>Crataegus laevigata</i>	F				Indicator of ancient woodland
Hawthorn	<i>Crataegus monogyna</i>	O				
Ash	<i>Fraxinus excelsior</i>	A	s	y	t	Includes two veteran trees
Cleavers	<i>Galium aparine</i>	R				
Herb-Robert	<i>Geranium robertianum</i>	F				
Wood Avens	<i>Geum urbanum</i>	O				
Ivy	<i>Hedera helix</i>	D				
Holly	<i>Ilex aquifolium</i>	A	s	y	t	Part of understorey
Wild Cherry	<i>Prunus avium</i>	F	s	y	t	Indicator of ancient woodland
Cherry Laurel	<i>Prunus laurocerasus</i>	O				LISI invasive species
Blackthorn	<i>Prunus spinosa</i>	O				
Pedunculate Oak	<i>Quercus robur</i>	D	t			Ten veteran trees present
Bramble	<i>Rubus fruticosus</i> agg.	F				
Clustered Dock	<i>Rumex conglomeratus</i>	O				

Parcels:		Parcels 1 & 2				
Common name	Scientific name (Stace 4)	DAFOR	Qualifiers			Notes
			1	2	3	
Broad-leaved Dock	<i>Rumex obtusifolius</i>	R				
Crack-willow	<i>Salix euxina</i>	R	t	w		
Elder	<i>Sambucus nigra</i>	O				
Red Campion	<i>Silene dioica</i>	O				
Rowan	<i>Sorbus aucuparia</i>	O	s	t		
Yew	<i>Taxus baccata</i>	F	s	y	t	
Elm	<i>Ulmus</i>	O	s	y		
Common Nettle	<i>Urtica dioica</i>	F				Extensive in places

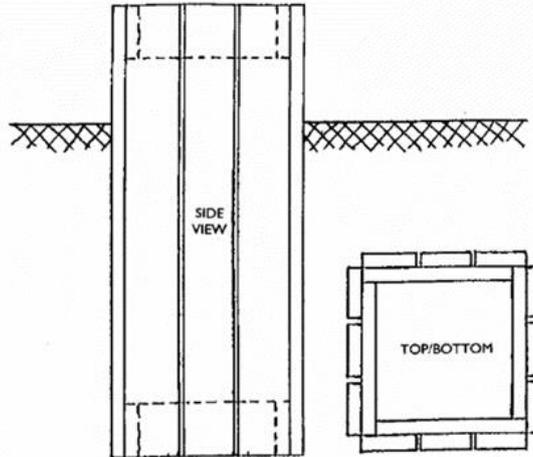
Appendix 4: Stag beetle loggeries and boxes

Loggeries and boxes



Loggerie

Large logs (10-50cm diameter) of hardwood (e.g. oak, beech, sycamore, ash) with bark still attached sunk c60cm into the ground, in partially shaded areas.



Artificial breeding box

Made of hardwood timber, 2cm thick, a box 49 X 21.5 X 21.5cm open at each end, covered on the four sides with 61 X 7 X 2cm slats, leaving <1cm gaps between (to allow access to beetles and larvae) to make total length of 61cm. One end covered with fine wire mesh to enable drainage, the other open. Filled with damp hardwood sawdust and fine woodchips, sunk 45cm into the ground with open end standing c7cm above soil level. As developed by Colin Hawes of the Suffolk Naturalists' Society.

Compliance with the legislation

The stag beetle is a 'protected species.' Listed on Schedule 5 of the Wildlife & Countryside Act 1981 (as amended), it protects the beetle from being sold in the UK. A major threat to the species, especially in Europe, has been through private collectors (who trade in them for collections), and in certain parts of the world, such as Japan, this trade is still thriving where stag beetles (of many species) are kept for pets and as status symbols.

Therefore if an individual offers a beetle for sale, or removes a beetle from its habitat with the intent of sale, it may therefore be controlled by the Act. If stag beetles are found to be offered for sale, collected for sale, or a sale is witnessed, consult Natural England immediately.

Natural England are the agency responsible for the interpretation of the Act, whilst the Metropolitan Police are responsible for enforcing it. There are exemptions to the implementation of the Act, and these will be spelt out by Natural England.

London Wildlife Trust, 2016

Appendix 5: Hibernaculum for amphibians & reptiles

Hibernacula are underground chambers that amphibians and reptiles use throughout the winter to protect themselves from the cold.

Amphibians and reptiles like frogs, toads, newts, lizards and snakes are regular visitors to suitable wild spaces and gardens, especially those with log piles, sunny spots, ponds, bogs and compost heaps. Creating hibernacula will provide safe spaces for amphibians and reptiles to hibernate over winter, as well as provide basking areas for solitary bees and birds to make the most of warm sunny days.

Items required:

- A spade
- Logs and branches
- Rocks and bricks
- 2-3 drainpipe cut-offs or cement pipes (if using plastic drainpipes, roughen the insides with sandpaper, so that they are not too slippery for animals to climb)
- Turf or meadow flower seeds (optional)

Method:

- In a sunny spot, dig a hole about 50cm deep and 1.5 metres across.
- Fill with logs, branches, bricks and rocks, leaving plenty of gaps in between.
- Insert entrance tubes (drainpipes) at ground level into the hole.
- Cover the pile with soil (to about 50cm high).
- Plant insect attracting wildflower seeds long grasses over the mound to provide for summer bees and butterflies.

The Wildlife Trusts