Friends of Charlton Park, supported by the Royal Borough of Greenwich

Charlton Park Ecological Appraisal and Management Plan

Draft report Prepared by LUC December 2019





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Charlton Park

Ecological Appraisal and Management Plan

Project Number 10858

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Chapter 1 Introduction

1.1 In September 2019, LUC was appointed by the Friends of Charlton Park, supported by the Royal Borough of Greenwich to provide ecological support to inform opportunities for ecological enhancement of two disused football pitches within Charlton Park, London SE7 8DZ (hereafter referred to as the "Site"). The aim of the project was to improve the Sites biodiversity by providing opportunities for local species, and to promote community engagement and interest in local wildlife.

1.2 Ecological support was provided in the form of an ecological appraisal, which comprised an Extended Phase 1 Habitat survey and a desk study of local biological records. In addition to this, habitats adjacent to the Site were included within the survey to provide context and to ensure the recommendations provided seek to strengthen existing ecological features present within the vicinity such as tree lines. This additional area is referred to within the report as the "Wider Survey Area".

1.3 This report has been prepared for the exclusive use of the Friends of Charlton Park. No part of this report should be considered as legal advice.

Site Description

1.4 The Site is situated within the eastern section of Charlton Park (grid reference TQ42263 77677). It is comprised solely of poor semi-improved grassland which until recently had been mown regularly for recreational use (amenity grassland). The wider park is predominantly comprised of amenity grassland and tree lines. The Big Red Bus Club is situated within the north-east of the park, and park offices and an associated car park are located in the north.

1.5 Charlton House and grounds abut the park to the west. Charlton Park Road and Charlton Park Academy border the north of the Site whilst Charlton Cemetery is located to the east. Charlton Park Lane forms the southern edge of the Site.

1.6 The wider area is predominantly urban in nature, but supports several large areas of amenity and natural greenspace, and forms part of a larger ecological corridor across the eastern and south-eastern regions of Charlton and to the surrounding area. This comprises Maryon Park and the Maryon Wilson Animal Park to the north, Charlton House and Charlton Park in the west, Repository Woods and Charlton Cemetery in the centre, Barrack Field to the east, and Hornfair

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Park and Woolwich Common in the south which lead to Eltham Common and Oxleas Meadows thereafter. Other notable areas of relatively high ecological value in the wider landscape include the River Thames, Blackheath, Oxleas Wood and Shooters Hill Golf Club. These greenspaces comprise a variety of habitats including open grassland, woodland, scrub and waterbodies.

Project Description

1.7 The project seeks to transform the site, to provide habitat of high value ecologically and for the local community. This is to be achieved through habitat creation, appropriate management strategies and monitoring schemes to ultimately maximise biodiversity within the Site and provide a foundation to generate interest and engagement in wildlife from the local community. The scheme objectives place a strong emphasis on encouraging native species and habitats which are reflective of the surrounds and historic nature of the Site, engaging the community in wildlife-based activities such as bird watching, and providing nature on people's doorsteps. A final scheme design will be agreed following consultation with stakeholders, after which the extent and manner in which the Site is enhanced will be finalised. This ecology report seeks to support and guide the approach which will be taken.

Policy and Legal Considerations

1.8 This report has been prepared in accordance with relevant legislation and planning policy. The following documents are of particular relevance:

- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way Act (CRoW Act), 2000;
- The Natural Environment and Rural Communities Act (NERC Act), 2006;
- The Conservation of Habitats and Species Regulations 2017; and
- Greenwich Local Biodiversity Action Plan.

Chapter 2 Methods

2.1 The methods adopted in the survey and appraisal are outlined below. They accord with the good practice guidance documents for survey and appraisal produced by the Chartered Institute of Ecology and Environmental Management¹ and the British Standards Institute².

Desk Study

2.2 To provide additional background to the appraisal and to highlight likely features or species groups of interest, a study of available biological records was undertaken to identify sites designated for their nature conservation value, and existing records of protected or notable species of relevance to the Site. A search of the following resources was undertaken:

- Greenspace Information for Greater London (GiGL) for the Site and a 1km buffer;
- Multi-Agency Geographical Information for the Countryside (MAGIC);
- Ordnance Survey (OS) mapping; and
- Aerial photography.

2.3 The absence of a species from biological records cannot be taken to represent actual absence. Species distribution patterns should be interpreted with caution as they may reflect survey/reporting effort rather than actual distribution.

Extended Phase 1 Habitat Survey

2.4 An Extended Phase 1 Habitat survey was undertaken to include mapping of all habitats within the Site boundary and the Wider Survey Area, all in line with standard methods³.

2.5 A Phase 1 Habitat Survey provides a rapid means of classifying broad habitat types in any given terrestrial site.

2.6 The survey was 'extended' by considering the suitability of the Site to support notable or protected flora or fauna.

¹ CIEEM (2017). Guidelines for Preliminary Ecological Appraisal. 2nd Edition. Chartered Institute for Ecology and Environmental Management, Winchester. CIEEM (2015). Guidelines on Ecological Report Writing. Chartered Institute for Ecology and Environmental Management, Winchester. CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and

Ireland: Terrestrial, Freshwater and Coastal and Marine. Chartered Institute for Ecology and Environmental Management, Winchester.

² British Standards Institute (2013). BS42020:2013 Biodiversity – Code of Practice for Planning and Development.

³ Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.

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Species considered included those identified during the desk study, or those considered appropriate by the surveyor during the survey.

2.7 The DAFOR scale was used when referring to the dominant species present within each habitat. The survey was undertaken by Rory Glackin GradCIEEM on 10th September 2019. Weather conditions were sunny, windy and dry.

Bats

Habitat Assessment

2.8 The Extended Phase 1 Habitat Survey included a walkover assessment of the tree lines and hedgerows situated within the Wider Survey Area, to identify the potential value of these habitats for bats. Professional judgement was applied to identify features that are likely to be of importance to bats in terms of roosting, foraging or commuting.

Daytime Assessment of Bat Roost Potential

Trees

2.9 A Ground Level Assessment (GLA) of the linear features within the Wider Survey Area was undertaken and comprised a detailed search for external features that may extend into cavities and provide roosting opportunities for bats such as rot holes, raised bark and fissures. This was undertaken using binoculars and a high-powered torch.

The trees were classified as to their Bat Roost Potential (BRP) with due consideration to best practice guidance (which is summarised below in **Table 2.1**)⁴

⁴ Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

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Table 2.1 Bat Roost Potential Categories

Suitability	Description	Further survey implications
Confirmed bat roost	Bats or evidence of bats recorded, both of recent and/or historic activity.	Works affecting a roost are licensable. Further survey required to determine the bat species present, nature of roost and level of use before mitigation is can be determined.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by large numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ⁵ and surrounding habitat.	Three separate survey visits. Of which, at least one dusk emergence and a separate dawn re-entry survey. Subject to initial survey findings, the level of survey effort required may be reviewed.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. Subject to initial survey findings, the level of survey effort required may be reviewed.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ⁵ and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential ⁶ .	A single survey visit is required for buildings. No further survey is required for trees. Subject to initial survey findings, the level of survey effort required may be reviewed.
Negligible	Negligible habitat features on site likely to be used by roosting bats.	No further survey or mitigation required.

⁵ For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.
⁶ This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

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Limitations and Constraints

2.10 It is important to note that ecological surveys provide information regarding the ecological baseline of a site for only a 'snapshot' of time. Therefore, if significant time lapses between the surveys and the further development or implementation of proposals, updated ecological surveys may be required to identify any change in the baseline, such as natural succession of habitats, or local extinction or colonisation of species. Ecological surveys can generally be considered as up-to-date for one to three years dependent on the nature of the site, the ecological baseline, the proposals and the likely impacts. Therefore, if a year lapses between the survey and the commencement of development proposals, ecological advice should be sought regarding the applicability of the survey findings. This advice is in line with best practice guidance produced by the Chartered Institute of Ecology and Environmental Management (CIEEM) 7.

⁷ CIEEM (2019). Advice Note: On the Lifespan of Ecological Reports and Surveys. Chartered Institute for Ecology and Environmental Management, Winchester.

Chapter 3 Results

Desk Study

3.1 The findings of the desk study are presented in the tables below. **Table 3.1** summarises statutory and non-statutory designated sites within 1km of the Site. **Table 3.2** summarises records of protected species within 1km of the Site.

 Table 3.1: Designated Sites within 1km of the Site (TQ42263 77677)

Site Name	Designation	Qualifying Features	Grid Reference				
Statutory Sites	Statutory Sites						
No statutory sites designated for e	cology were recorded within 1km of	the Site.					
Non-Statutory Sites							
Maryon Park, Gilbert's Pit and Maryon Wilson Park	SINC (Borough Grade I)	Parks with scrub, woodland and grassland, a small stream, and an important geological site.	TQ419784				
Woolwich Common	SINC (Borough Grade I)	A large expanse of grassland with areas of scrub and woodland near the edges	TQ427772				
Charlton House Lawn	SINC (Borough Grade I)	The lawns of London's best- preserved Jacobean mansion, containing important plant species	TQ415777				
Repository Wood and Charlton Cemetery	SINC (Borough Grade II)	Woodland with three ponds and a cemetery to the south containing acid grassland	TQ426781				
Academy Place Orchard	SINC (Local)	A recently-planted orchard with an ancient hedge on one edge.	TQ429768				

Table 3.2: Relevant Protected and Notable Species Records within 1km of the Site (TQ42263 77677).

Species Name	Legal and Planning Status	Distance from Site (1km)				
Flowering Plants	Flowering Plants					
Bluebell Hyacinthoides non-scripta	W&CA Sch8	804m NW				
Mammals						
Leisler's bat <i>Nyctalus leisleri</i>	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2	400m W				

Species Name	Legal and Planning Status	Distance from Site (1km)
	W&CA Sch5 Sec 9	
	BAP Priority London	
Noctule	Hab&Spp Dir Anx 4	691m N
Nyctalus noctula	Cons Regs 2010 Sch2	
	W&CA Sch5 Sec 9	
	NERC Act Section 41	
	BAP Priority National	
	BAP Priority London	
	Local Spp of Cons Conc	
Common pipistrelle	Hab&Spp Dir Anx 4	691m N
Pipistrellus pipistrellus	Cons Regs 2010 Sch2	
	W&CA Sch5 Sec 9	
	BAP Priority London	
Soprano pipistrelle	Hab&Spp Dir Anx 4	691m N
Pipistrellus pygmaeus	Cons Regs 2010 Sch2	
	W&CA Sch5 Sec 9	
	NERC Act Section 41	
	BAP Priority National	
	BAP Priority London	
	Local Spp of Cons Conc	
Serotine	Hab&Spp Dir Anx 4	688m N
Eptesicus serotinus	Cons Regs 2010 Sch2	
	W&CA Sch5 Sec9	
	BAP Priority London	
West European Hedgehog	NERC Act Section 41	871m SE
Erinaceus europaeus	BAP Priority London	
Birds		
Tree Pipit	NERC Act Section 41	639m E
Anthus trivialis	BAP Priority London	
Cuckoo	NERC Act Section 41	931m N
Cuculus canorus	BAP Priority London	
Lesser Spotted Woodpecker	BAP Priority London	931m N
Dendrocopos minor		
Brambling	W&CA Sch1 P1	931m N
Fringilla montifringilla		

Species Name	Legal and Planning Status	Distance from Site (1km)
Linnet	BAP Priority London	639m E
Linaria cannabina		
Grasshopper Warbler	NERC Act Section 41	639m E
Locustella naevia	BAP Priority London	
Spotted Flycatcher	NERC Act Section 41	639m E
Muscicapa striata	BAP Priority London	
House Sparrow	NERC Act Section 41	281m N
Passer domesticus	BAP Priority London	
Dunnock	BAP Priority London	639m N
Prunella modularis		
Starling	BAP Priority London	639m E
Sturnus vulgaris		
Redwing	W&CA Sch1 P1	680m SE
Turdus iliacus		
Song Thrush	BAP Priority London	639m E
Turdus philomelos		
Fieldfare	W&CA Sch1 P1	680m SE
Turdus pilaris		
Amphibians		
Common Toad	NERC Act Section 41	881m North
Bufo bufo	BAP Priority London	
	Local Spp of Cons Conc	
Common Frog	Local Spp of Cons Conc	881m North
Rana temporaria		
Invertebrates		
Stag Beetle	Hab&Spp Dir Anx2	787m N
Lucanus cervus	NERC Act Section 41	
	BAP Priority London	
White-letter Hairstreak	NERC Act Section 41	955m N
Satyrium w-album	BAP Priority London	
Jersey Tiger	Hab&Spp Dir Anx 2	681m N
Euplagia quadripunctaria		
Cinnabar	NERC Act Section 41	668m SE
Tyria jacobaeae	BAP Priority London	

3.1 The Greenwich Biodiversity Action Plan (BAP) has listed priority habitats and species for the Borough as part of an on-going scheme to "*secure the conservation, enhancement and public appreciation of the biodiversity in the London Borough Greenwich*". This is to be achieved by restoring, protecting and connecting priority habitats, and increase the overall population of the listed species within the Borough. There are six priority habitats and species as part of the plan, and these are listed below:

Habitats

- Acidic grassland & heathland
- Gardens
- Parks and green spaces
- Wasteland
- Water's edge, rivers, ponds and wetland
- Woodland

Species

- Bats
- Black redstart
- Black poplar
- Hedgehog
- Stag beetle
- Water vole

3.2 The indicative proposals for the Site, outlined in Section 4, have taken these listed habitats and species into consideration during the indicative scheme design to try and incorporate them within the proposals wherever feasible.

Charlton Park Birdwatch

3.3 The Friends of Charlton Park host an annual birdwatch of the park and the adjacent Charlton House and Charlton Cemetery.

3.4 During the 2019 survey, the following species were observed:

- Great tit;
- Robin;
- Woodpigeon;
- Long-tailed tit;
- Blue tit;
- Greenfinch;
- Chaffinch;
- Blackbird;
- Starling;
- Collared dove;
- Magpie;
- Tern;
- Carrion crow;
- Common gull;
- Herring gull;
- Blackheaded gull;
- Ring-necked parakeet;
- Great spotted woodpecker; and,
- Goldcrest.

3.5 These species have been considered during the design of the indicative proposals for the Site.

Extended Phase 1 Habitat Survey

3.6 Habitat descriptions are set out below. While considering this information, reference should be made to the Site Map presented in **Appendix 1** and the accompanying target notes are presented in **Appendix 2**.

3.7 The Extended Phase 1 Habitat Survey comprised the Site and the Wider Survey Area. The adjacent features have been reported below given the potential for proposed enhancements to be implemented within these habitats too.

Poor Semi-Improved Grassland

3.8 Poor semi-improved grassland was the sole habitat within the Site. The sward height was short suggesting that it had been regularly managed up until recently where the grassland has been allowed to begin establishing itself. Indeed, it is likely that the site represented amenity grassland until recently.

3.9 The dominant species recorded was perennial rye-grass *Lolium perenne* with abundant ribwort plantain *Plantago lanceolata*. Yarrow *Achillea millefolium* and cat's-ear *Hypochaeris radicata* were frequently recorded, whilst

occasional species comprised creeping cinquefoil *Potentilla reptans*, and creeping thistle *Cirsium arvense*. Rare species were comprised of heath bedstraw *Galium saxatile*, yellow toadflax *Linaria vulgaris*, and common mouse-ear chickweed *Cerastium fontanium*. Rough meadow grass *Poa trivialis* and buck's-horn plantain *Plantago coronopus* were locally frequent.

Amenity Grassland

3.10 Amenity grassland abutted the Site on all aspects within the Wider Survey Area. It was evidently mown on a regular basis and was utilised for recreational use.

3.11 Perennial rye-grass was the dominant species. Ribwort plantain *Plantago lanceolata* was frequent, whilst dandelion *Taraxacum* sp. and yarrow were occasional recordings.

3.12 This habitat is to be retained within the proposals to accommodate runners and dog walkers utilising the park.

Tree lines

3.13 Tree lines were present to the east and south of the Site within the Wider Survey Area.

3.14 These were comprised predominantly of lime *Tilia* sp. with scattered sycamore *Acer pseudoplatanus* recorded within the eastern tree line.

3.15 Trees were observed to be of a similar age, structural composition and of good condition. Bird nests were observed within the canopy. No features were recorded which could be utilised by roosting bats.

Hedgerow with Scattered Trees

3.16 An ornamental hedgerow was observed along the northern fence line bordering the Big Red Bus Club within the Wider Survey Area.

3.17 Tree species recorded along the hedgerow included abundant sycamore, with frequent cherry *Prunus* sp. and occasional elder *Sambucus nigra* and ash *Fraxinus excelsior*.

Hardstanding

3.18 A hardstanding access route connecting Cemetery Lane to the park ran across the north of the Wider Survey Area, in parallel with the fence line bordering the Big Red Bus Club.

Ornamental Planting

3.19 An ornamental plant bed was situated at the eastern end of the ornamental hedgerow within the northern section of the Wider Survey Area. It entailed managed shrub stands which were comprised of hawthorn *Crataegus monogyna* and

ornamental species including oregano grape *Mahonia* aquifolium.

Protected and Notable Species

3.20 The habitats recorded within the Site were observed to, or are likely to provide opportunities for the following species or species groups:

- Birds
- Invertebrates
- Bats (activity only)
- Hedgehogs

Chapter 4 Discussion

Designated Sites

Discussion

4.1 The Site is not classified as a designated site and whilst it is functionally connected to adjacent designated sites within the area such as Maryon Park, Charlton House Lawn, Charlton Cemetery and Repository Woods, in its current state it does not provide a notable contribution to these sites.

4.2 Given the scope of this project, there is a significant opportunity to not only increase the biodiversity within the Site but also enrich the ecological connectivity between the designated sites within the wider area. Given the nature of the proposals, the project would be expected to benefit local designated sites by strengthening ecological connectivity and increasing the availability of habitats for biodiversity.

Habitats

Discussion

4.3 In general, the habitats present within the Site are of relatively low value, comprising poor semi-improved grassland low in species or structural diversity. Nevertheless, recent cessation of mowing had allowed a more interesting sward to establish which exhibited species representative of acidic and well-drained soil conditions, such as cat's ear and heath bedstraw, indicating the potential opportunity for further habitat creation and enhancement.

4.4 The habitats within the Wider Survey Area were similarly of low value, including amenity grassland, ornamental plant beds and hedges, hardstanding, and tree lines constituting low species diversity and a similar age and structure composition.

4.5 Given that the habitats present are common, widespread and replaceable, there is an excellent opportunity to improve the ecological value of the Site through habitat creation and management which would be expected to provide ecological enhancements and improve its functional connectivity to adjacent greenspaces. There is also potential to establish acidic grassland which is a priority habitat within the Greenwich BAP. Potential opportunities are set out in more detail within the **Habitat Creation** section below.

Protected or Notable Species

4.6 The Site had limited potential to support protected or notable species. This was restricted to foraging and nesting opportunities for birds, and limited foraging and sheltering for hedgehogs.

4.7 The Wider Survey Area offered additional opportunities for foraging and nesting birds, foraging and commuting bats, hedgehogs and invertebrates.

4.8 There is a significant opportunity to provide new foraging, commuting and nesting/roosting opportunities for protected species, and those listed as species of Principle Importance or Local BAP listed species (such as hedgehogs and house sparrow) through the provision of habitat creation and management as outlined below.

Habitat Creation

4.9 Whilst reviewing these proposed options, please refer to the indicative landscape and ecological management plan in **Appendix 3, Figure 1.**

Proposals Objectives

4.10 It is proposed that the Site will be managed to allow biodiversity to thrive, to generate interest from the local community, and to encourage a message of adopting an eco-friendly lifestyle.

4.11 It is envisaged that there will be a strong emphasis on using natural resources wherever possible, such as deadwood from felled trees, wood chippings for pathways, cleared scrub for brash piles, and native species which are reflective of habitats within the Borough.

4.12 One proposed element includes providing an ecology hub for the local community, particularly young people, to engage in active conservation management, bug hunts, pond dipping and birdwatching (which will be achieved by establishing habitats which are attractive for common bird species). This proposal could be complemented by the provision of a small storage cabin that will provide management tools for organised working events, information sources, latest sightings and a central focus for community engagement.

4.13 The recommendations below are **indicative**, and the proposed design and extent of the enhancements to be implemented will be determined through stakeholder engagement as part of an iterative process as the project progresses.

4.14 The proposed management tasks will ensure that the Site continues to support a wide range of habitats, diverse species assemblage, and ensure that the aims of this project

are delivered. These tasks are summarised below in **Table 4.1**.

Proposals and Appropriate Management Tasks

4.15 Whilst reviewing these proposals, please refer to **Table 4.1** which summarises the proposed management tasks for the Site.

4.16 The overarching recommended proposal is to split the Site into two sections: an accessible area to the north of the Site which is open to visitors and community activities (as described above and below); and a southern section which will have restricted access in order to replicate a small undisturbed nature reserve for local wildlife populations.

Acid Grassland

4.17 Within the Site, given the species recorded during the survey and the project intentions of promoting biodiversity, it is recommended that the grass is allowed to grow and establish itself as acid grassland, or enable areas of increased floristic interest to be more accurately identified and management informed accordingly.

4.18 Acid grassland, if managed appropriately to provide a structural and species rich sward, would provide suitable opportunities for birds, invertebrates, amphibians and mammals such as bats and hedgehogs. It would also contribute to increasing functional connectivity across the Site and the Wider Survey Area.

4.19 It is also recommended that selected areas of grassland outside of the Site boundary are allowed to grow to increase ecological connectivity to the Wider Survey Area and the rest of the park.

4.20 It is recommended that management seeks to establish and maintain a structurally and species diverse range of grassland swards. This would involve varying the frequency and locations of grassland cutting. It is recommended that in general the grasslands are cut after setting seed in late summer and the arisings removed and composted to prevent nutrient enrichment.

Pond Creation

4.21 Pond creation within the northern aspect of the Site would provide a significant feature of ecological value capable of supporting a range of birds, bats, amphibians, and invertebrates. Additionally, with the provision of a pond-dipping platform and wildlife information boards, this feature would provide educational, aesthetic and recreational values, which could be of particular benefit to the adjacent Big Red Bus Club which could utilise the pond for pond-dipping purposes. Ponds are listed as priority habitat within the

Greenwich BAP and are a habitat of Principle Importance nationally.

4.22 Pond design should be specified to maximise its ecological value, and it is recommended that guidance produced by the National freshwater charity 'Froglife' is consulted to inform appropriate design⁸. The pond ideally be created to support a varied depth of up to 4m, with plug planting of suitable species such as water mint, brooklime, water forget-me-not and *Glyceria* grass species. The pond structure should comprise marginal vegetation around the edges, with open water present within the centre. We also recommend fencing around the majority of the perimeter as a health and safety precaution.

4.23 Management tasks will comprise dredging once every 10 years or as indicated by monitoring results to remove any built-up silt and debris. This should be undertaken between November and late January. Additionally, the removal of excess floating and submerged vegetation should be done by hand in autumn to retain open areas of water. These maintenance works will be undertaken by volunteers, and will ensure the pond is maintained in a suitable condition and is not subjected to vandalism or excess litter which may reduce the value of this habitat.

Scrub

4.24 Planting a variety of isolated and continuous scrub will provide suitable habitat for nesting birds, bats, invertebrates, hedgehog and amphibians, and increase connectivity across the Site. In particular, planting species associated with acidic soil condition, such as gorse, could aid the establishment of heathland habitat in the long term if managed correctly, which as previously stated is a BAP priority habitat.

4.25 We recommend that these habitats are strategically positioned throughout the Site to provide acoustic and visual barriers from visitors utilising the wildlife area and the Wider Survey Area, particularly due to the intentions of attracting local bird populations to the Site for bird watching purposes. This will help create quieter areas where more sensitive bird species can nest with a reduced likelihood of disturbance. Areas of more continuous scrub should be planted along the peripheries and access routes within the Site, in combination with scattered trees (discussed below). These should be comprised of native species such as gorse, hawthorn, field maple, elder, elm and beech.

4.26 In addition, we recommend that native scrub and shrub species are planted underneath the tree lines within the Wider Survey Area to increase foraging and commuting opportunities

as well as improving habitat connectivity within the Wider Survey Area and to the wider site.

4.27 Continuous scrub should be cleared on a rotational scheme once every 3 years, whilst isolated scrub should be cut once every 2 years by hand (or as deemed appropriate). This will prevent scrub encroachment of the proposed acidic grassland.

Tree Planting

4.28 Planting scattered trees throughout the Site and the Wider Survey Area will provide foraging and nesting opportunities for birds, and foraging, commuting and roosting opportunities for bats. This will be beneficial within the tree lines within the Wider Survey Area as they are relatively species-poor, and through planting native species (such as Black Poplar which is a BAP listed species), this will create a more species rich habitat and accommodate a wider range of species.

4.29 Trees should be inspected yearly, and any trees of ill health or that may cause health and safety concerns should be dealt with appropriately. Should the removal of trees be required, then an ecologist should be contacted in the first instance for advice to ensure that there are no constraints for the proposed works to go ahead, such as active birds' nests or trees exhibiting features that have the potential to support roosting bats.

Other Features

Fencing and Gates

4.30 Wooden fencing is proposed around the majority of the pond. Continuous scrub, deadwood features and scattered trees will be planted/positioned along the boundary of the entire Site and laterally through the centre of the Site in order to divide the northern section to accommodate visitors, and the southern section which is to be utilised as an area solely for wildlife. These features will provide suitable foraging, commuting and nesting opportunities for local species, and provide a physical and acoustic barrier for the Site from the remainder of the Wider Survey Area.

4.31 Two gates will be positioned along the northern aspect of the Site to allow access for the visitors into the northern section of the Site, and an additional gate will be positioned on the eastern aspect of the southern section to allow access for management works.

4.32 Management of fencing, paths, and signage etc. will likely be undertaken by volunteers on behalf of the friends' group for the park. Under appropriate guidance, this could reduce the costs of hiring contractors. Maintaining these features will ensure successful functioning of the proposed

⁸ https://www.froglife.org/wp-content/uploads/2013/07/JAW2014-for-printing-HLF1.pdf

Site and assist in continuing to generate interest in wildlife within the local community.

Bird Watching

4.33 It has been recommended that the southern section of the Site has restricted access to reduce the level of disturbance within this section and attract a wide range of bird species to nest here. This is recommended to achieve the notion of the community engaging with the local wildlife through bird watching. Wildlife screening and scrub planting is proposed along the dividing and boundary fence line for the latter, in order to avoid startling birds that may be utilising the section of this Site. This will be combined with information boards, feeding stations and a cabin proposed at the entrance to the Site which could provide binoculars for rental use, and information on recent sightings and species that are present within the area. This can provide an incentive for visitors to utilise the Site and engage with it.

4.34 It is recommended that dogs are prohibited or are required to be kept on a short lead and kept under control when entering. This can be achieved through appropriate signage or directed as required by a volunteer. This is to reduce the risk of disturbance which would deter birds from utilising the Site.

4.35 It is recommended that the cabin and wildlife screens are also managed by volunteers of the friends' group.

Bat/Bird Boxes

4.36 The provision of bat and bird boxes on existing and proposed trees within the Site and Wider Survey Area would provide new roosting opportunities for these species.

4.37 Bat boxes should be fixed between three and six metres above ground on east or south facing sides of trees. It is recommended that self-cleaning boxes are utilised, such as the Schwegler 3FF Bat Box, which removes the requirement for maintenance. If the boxes need to be disturbed for maintenance or removal measures, then this should be undertaken by a suitably licensed ecologist.

4.38 Bird boxes should be positioned between two to four metres above ground between the north and east facing aspects of trees. A variety of bird boxes can be attained to provide opportunities for a wider variety of species such as house sparrow, starling or spotted flycatcher. House sparrow boxes⁹ should be placed in twos or threes on the same tree as this species tend to nest in groups. Starlings require a similar arrangement but can have boxes placed on adjacent trees to allow for the formation of loose colonies¹⁰. Spotted flycatchers can utilise boxes with an open front, although they should be

positioned partially behind scrub or vegetation cover to reduce the risk of discovery by predators¹¹.

4.39 It is also recommended that tawny owl boxes¹² are positioned on mature trees within the Wider Survey Area, similarly positioned between three and six metres high facing between north and east. These should be positioned away from frequently used access routes to ensure the owls can roost without disturbance, and as a health and safety precaution for visitors utilising the Site (e.g. owl boxes are heavy and should not be positioned above paths, and adults may attack intruders if they feel their chicks are threatened). If there is an opportunity to provide mature trees within the southern section of the Site, then this would be an ideal position to place a tawny owl box as they would be less likely to be subjected to disturbance here.

4.40 Bird boxes will require cleaning once a year, and these works are to be undertaken outside of the breeding season (March to August inclusive).

Access Routes

4.41 Access routes into the northern section of the proposed Site will be comprised of mown paths with deadwood outlining the paths. The deadwood will provide foraging opportunities for birds, bats and amphibians, and provide optimal habitat for invertebrates, particularly the Stag Beetle which is a listed Greenwich BAP species.

4.42 These features can be mown or replaced respectively as deemed appropriate during monitoring visits or monthly assessments by the management team.

Log/brash piles

4.43 Piles of, and the partial burying of logs and brash provide optimal habitat for amphibians and invertebrates, and suitable foraging opportunities for birds and bats.

4.44 These features can be supplemented with woody debris as a result of maintenance works e.g. scrub coppicing.

https://www.nestbox.co.uk/products/house-sparrow-nest-box

¹⁰ https://www.nestbox.co.uk/products/starling-box

¹¹ https://www.nestbox.co.uk/products/robin-nest-box

¹² https://www.nestbox.co.uk/products/eco-tawny-owl-nest-box

Table 4.1 Table of Recommended Management Measures for Indicative Proposals (Prescriptions in Years 1 – 10)

Task	Location of Appendix 3 Figure 1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 -10
Grassland Manager	nent						
Acid Grassland: Cut once a year in September in a regime to provide a varied structural and sward height. Arisings should be removed. Mown path to be cut as deemed appropriate throughout the year	Entire Site	Cut in late September	As year 1				
Scrub Management							
Scrub: Continuous scrub cut on a rotational clearance scheme once every 3 years	Dense scrub located along Site boundaries and access routes	None	None	None	None	Clearance	Clearance year 10 followed by a 5 year rotation thereafter
Pond Management							
Dredging will not remove more than half of the silt any one year. Recommended that this is done in small increments, so the pond never has to be dredged.	Central region of the Site	None	None	None	None	None	Once in year 10
rioating excess vegetation to be removed by hand in Autumn (if deemed appropriate).		Once a year where appropriate	Once a year if deemed appropriate	Once every year if deemed appropriate			
Other Features		-	-	-	-	-	
Fencing, gates, signage, screens and cabin	Entire Site	As required					

Log/brash pile and deadwood maintenance i.e. scrub clearance and addition of new material as decay occurs	Log/brash piles indicated in Figure 1	As required					
Bat/bird box maintenance	Entire	Bird boxes to be cleaned once a year outside of the bird breeding season (March to August incl.). Bat box maintenance to be undertaken where appropriate by a licenced ecologist	Same as year 1	Same as year 1	Same as year 1	Same as year 1	Same as year

Monitoring

Monitoring of the Site will be required to identify any aspects of the Site requiring repair, replacement or upgrading, including signage, fencing, and safety requirements. It will also determine if the proposed management works are maintaining the Site as desired, and if not, to inform how the management tasks can be adjusted to ensure that these visions are met.

4.45 It is recommended that the Site is monitored once a year by an ecologist, using the results from the Extended Phase 1 Habitat survey as a baseline to compare the progress of the Site to.

4.46 Recommended monitoring strategies to be incorporated for the Site are as follows:

- Habitat monitoring. This is to ensure that the proposed management tasks are in line with the proposal's objectives, and if not, altered to ensure that the desired outcome is achieved. This will also entail scrub monitoring to prevent scrub encroachment, and invasive species monitoring to prevent the establishment of Schedule 9 species listed¹³ within the Site.
- Pond monitoring. To prevent the domination of one aquatic floral species and ensure invasive species do not establish themselves. This will also assess the levels of silt accumulating at the bottom of the ponds and inform future management tasks i.e. dredging.
- Visitor's survey. It is recommended that a visitor's survey is implemented to assess if the Site is achieving the desired outcome of inspiring the local community to engage with local wildlife. Feedback from visitors can be used to adjust the Sites management plans if the desired outcome is not being met and be used to direct future proposals for the Site. This can be achieved through questionnaire/feedback leaflets that can be provided in the hub.

¹³ Wildlife and Countryside Act 1981

Chapter 5 Conclusion

5.1 The proposals aim to satisfy the objectives of this project which are to: improve the Sites biodiversity; provide nature on people's doorsteps; and engage the local community in local wildlife. There is a particular focus on attracting a wide range of bird species to the Site to facilitate bird watching proposals. The proposed approach to achieve this is through suitable habitat creation, appropriate management tasks, and monitoring strategies.

5.2 The Site is comprised of low value habitats comprised solely of poor semi-improved grassland, whilst adjacent habitats within the Wider Survey Area were of a similar value comprised of amenity grassland, tree lines, ornamental plant beds, ornamental hedgerows and fence lines.

5.3 The Site has the potential to support habitats and protected and notable species, including Greenwich BAP priority listed species such as bats, birds, invertebrates, hedgehog and amphibians. Bird nests were recorded within the Wider Survey Area. No trees were observed to exhibit features suitable of supporting roosting bats.

5.4 Through the proposed habitat creation and relevant management and monitoring techniques, there is an excellent opportunity to contribute towards local and national biodiversity objectives such as the National Planning Policy Framework (NPPF), which aims to promote the conservation, restoration and enhancement of priority habitats and the protection and recovery of priority species. Local planning authorities have a requirement to adhere to this framework when considering planning applications.

5.5 Habitat creation includes the proposals of allowing the grassland to grow and establish itself as acidic grassland, continuous and isolated scrub planting, scattered tree planting, pond creation, bird and bat box placement, and log/brash pile creation. These habitats are to be separated from the remainder of the park through ecological barriers such as continuous scrub and deadwood features, and gating. A hub is proposed at the entrance of the Site to facilitate the community-based bird watching incentive, and wildlife screens along the central fence-line will assist in reducing disturbance to the southern section of the Site by visitors.

5.6 The proposed management tasks will ensure that the Sites ecological status is improved and maintained. This will

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be achieved through annual cutting of the proposed acidic grassland, selective clearance of scrub, pond management, and maintenance of ecological features including brash piles, bird boxes and physical features such as paths, fencing, gates, signage and the cabin.

5.7 Monitoring is essential to ensure that the management tasks are meeting the proposals objectives, and if not, adjusted accordingly. This will be predominantly focussed on habitat monitoring to prevent scrub encroachment and invasive species establishment, and pond monitoring to ensure complete vegetation does not occur of a single species. The ecological status of the Site will be referred to the findings of this report to determine the if the proposals have been successful in meeting the project's objectives Additionally, we have recommended a visitor's survey to gain feedback on the community's views of the Site, and whether the objectives of engaging the community in wildlife are being achieved or require appropriate adjustments to ensure this.

5.8 In summary, there is an excellent opportunity to enhance the Site to not only comprise a wider species and habitat assemblage, but improve functional connectivity to greenspaces within the wider area, and engage the local community in local wildlife through means of education and wildlife-based activities, in order to increase awareness of the wildlife around them, and possibly promote positive changes to their everyday lifestyles in order to conform to a more sustainable and environmentally-friendly way of living.

Chapter 6 Appendix 1

Site Map





Site Boundary

---- Wider Survey Area



Target Notes (see next page)

Chapter 7 Appendix 2

Phase 1 Habitat Survey Target Notes

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Target Note	Description
1	Amenity grassland. Mown short for recreational and aesthetic use. Borders the central region of poor semi-improved grassland. Perennial rye-grass <i>Lolium perenne</i> was the dominant species, with frequent ribwort plantain <i>Plantago lanceolata</i> , dandelion <i>Taraxacum sp.</i> , and yarrow <i>Achillea millefolium</i> . This area is to be retained within proposals to accommodate runners and dog walkers who utilise the park.
2	Poor semi-improved grassland. Evidence of regular management up until recently, where it has been left to grow. Location for proposed hay meadow. Dominant species was perennial rye-grass, with abundant ribwort plantain. Frequent species comprised yarrow and cat's-ear <i>Hypochaeris radicata</i> . Occasional species included creeping cinquefoil <i>Potentilla reptans</i> , and creeping thistle <i>Cirsium arvense</i> . Rare species comprised heath bedstraw <i>Galium saxatile</i> , yellow toadflax <i>Linaria vulgaris</i> , and common mouse-ear chickweed <i>Cerastium fontanium</i> . Locally frequent species were comprised of rough meadow grass <i>Poa trivialis</i> and buck's-horn plantain <i>Plantago coronopus</i> . Species recorded suggest that the soil is of an acidic nature.
3	Lime <i>Tilia</i> sp. line feature adjacent to boundary fencing. Trees were of a semi-mature age. Bird nests were observed within the canopy layer. Negligible BRP .
4	Worn path.
5	Tree line situated along the eastern boundary wall. Comprised predominantly of lime with scattered sycamore <i>Acer pseudoplatanus</i> . Bird nests were observed within the canopy layer. Negligible BRP .
6	Areas of dumped soil. Common nettle <i>Urtica dioica</i> , dock <i>Rumex</i> sp., burdock <i>Arctium</i> sp., false oat <i>Arrhenatherum elatius</i> , dandelion <i>Taraxacum</i> sp. and mugwort <i>Artemisia vulgaris</i> were present. Habitat is suitable for invertebrate species such as solitary bees.
7	Mown amenity grassland with tree lines along the periphery. Grassland is predominantly perennial rye-grass. Tree lines were comprised predominantly of lime <i>Tilia</i> sp. with occasional sycamore.
8	Ornamental planting. Comprised of hawthorn <i>Crataegus monogyna</i> and ornamental planting such as oregano grape <i>Mahonia aquifolium</i> .
9	Ornamental hedge with trees along fence line. Tree species were comprised predominantly of sycamore Acer pseudoplatanus with frequent cherry Prunus sp., and occasional ash Fraxinus excelsior and elder Sambucus nigra.
10	Fence line with a hedgerow and adjacent stand-alone trees. Hedgerow was comprised predominantly of beech <i>Fagus sylvatica</i> with frequent ornamental species including firethorn <i>Pyracantha coccinea</i> .

Chapter 8 Appendix 3

Indicative Landscape Ecological Management Plan

Figure 1 Indicative Landscape Ecological Management Plan





