



**Preliminary Ecological
Appraisal**

Rear of 35 Twickenham Road,
Teddington

November 2022

Preliminary Ecological Appraisal

Rear of 35 Twickenham Road, Teddington

22/11/2022

Foster Kenny Developments
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London
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Non-technical Summary

Phlorum Ltd was commissioned by Foster Kenny Developments to undertake a Preliminary Ecological Appraisal which was carried out at the land to the rear of 35 Twickenham Road, Teddington on the 4th November 2022, in order to determine whether any ecological constraints could affect the proposed works for the site.

Current proposals are for the construction of two residential dwellings. The survey area extended over approximately 230m².

The main findings of the surveys are as follows:

- The site is not subject to any statutory or non-statutory designations. The closest statutory designated site is Ham Lands Local Nature Reserve which is located 270m to the northeast.
- The site comprised hardstanding, earth mounds with ruderal vegetation, and sparse bramble.
- No further targeted surveys have been recommended for the site. Protected species are not considered to pose a constraint to the proposed development.
- It has been recommended that the buddleia is removed from the site.

Further information on recommended mitigation and enhancement measures are discussed in Section 5.

1. Introduction

Background

- 1.1 Phlorum Ltd has been commissioned by Foster Kenny Developments to undertake a Preliminary Ecological Appraisal, to inform the potential ecological constraints of proposed future development of the rear of 35 Twickenham Road, Teddington, TW11 8AH (hereafter referred to as “the site”).
- 1.2 The purpose of the Preliminary Ecological Appraisal was:
 - 🌿 to identify the major habitats present;
 - 🌿 to identify the potential for any legally protected species to be present; and
 - 🌿 to recommend any additional ecological surveys, if required.
- 1.3 As part of the assessment, a desktop review and a site visit were carried out. The results of which were used to assess the nature conservation importance of the site and the potential of the site to support protected species.
- 1.4 This report has been compiled in accordance with current guidelines (British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development, 2013 and CIEEM, 2017 and 2018).
- 1.5 It is understood that the proposed development is for the construction of two residential dwellings. The plot is currently vacant.

Site Location

- 1.6 The site is situated in an urban location in Teddington, London. The site is accessed from Manor Road, which is adjacent to the A310 Twickenham Road. The River Thames is approximately 160m to the northeast. The surrounding area is built-up, comprising predominantly residential properties. There are small areas of open green space associated with private parks and playing fields, and one larger area of semi-natural habitat associated with Ham Lands Local Nature Reserve to the northeast.
- 1.7 The National Grid Reference for the centre of the site is TQ 16381 71459. The survey area extended over approximately 230m².

2. Methodology

Desk Study & Consultations

Database and Map Search

- 2.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites, legally protected species and features of interest within a 1km radius of the site. The database and map search was based on available information provided by the following sources:
- 🌿 Greenspace Information for Greater London (GIGL, 2022);
 - 🌿 Multi-Agency Geographical Information for the Countryside (MAGIC, 2022);
 - 🌿 Ordnance Survey mapping;
 - 🌿 Aerial photography; and
 - 🌿 The Woodland Trust online Ancient Tree Inventory.

Habitat Survey and Assessment

- 2.2 Phlorum Limited carried out an ecological survey of the site on the 4th November 2022. The survey was carried out by a suitably qualified ecologist, Natalie Arcscott, who has over 3 years' professional experience of undertaking ecological surveys. The weather conditions during the survey were cool, dry, and clear.
- 2.3 The field survey comprised a walkover inspection of the land and habitats present. The survey followed standard Phase 1 survey methodology (JNCC, 2010) and covered all accessible parts of the site, including boundary features. Habitats were described and mapped (Figure 1: Appendix A). A list of plant species was compiled, together with an estimate of abundance made according to the DAFOR scale (Appendix D).
- 2.4 This assessment provides information on the habitats in the survey area and identifies actual or potential presence of legally protected or otherwise notable species/habitats in or immediately adjacent to the site.
- 2.5 Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

Protected Species Assessment

- 2.6 The potential for the site to provide habitat for protected species was assessed from field observations in conjunction with results of the desk study. The site was inspected for indications of the presence of protected species including:

- Habitat considered suitable to support widespread reptile species including areas with a scrub/grassland mosaic and potential hibernation sites;
 - On-site ponds offering potential breeding opportunities for great crested newts (*Triturus cristatus*) and the presence of suitable terrestrial habitat including hedgerows and rough grassland;
 - The presence of features in and on trees indicating potential for roosting bats (Chiroptera), including knot and rot holes and loose bark. Secondary evidence of bats including staining, droppings, and feeding remains were also looked for;
 - The presence of nesting habitat for breeding birds, including mature trees, dense scrub, and hedgerows, and direct evidence of bird nesting including bird song, old nests etc.;
 - Habitats considered suitable to support badger (*Meles meles*) setts, and evidence in the form of hair, pathways, and latrines;
 - Presence of woodland and/or hedgerows providing suitable habitat to support hazel dormice (*Muscardinus avellanarius*);
 - Riparian habitat supporting suitable features for water voles (*Arvicola amphibius*) and otters (*Lutra lutra*), and the
 - Presence of nationally protected and/or invasive plants.
- 2.7 The potential presence for protected species is categorised as **Negligible, Low, Moderate, High, or Present**, based on the findings of the field survey and on the evaluation of existing data.
- 2.8 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys for protected species or mitigation should be recommended.

Caveat

Data Search Constraints

- 2.9 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

Survey Constraints

- 2.10 Ecological surveys are limited by factors that affect presence of plants and animals such as seasonality. Whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the environment.
- 2.11 The survey was carried out outside of the growing season and therefore many species may not have been visible above ground or readily identifiable.

- 2.12 The appraisal does not constitute a full botanical survey, or a Phase 2 pre-construction survey that would include accurate GIS mapping for invasive or protected plant species. This survey provides a preliminary view of the likelihood of protected species occurring on the site based on the suitability of the habitat, known distribution of the species in the local area, and any direct evidence on the site. It is therefore used as a tool to recommend further protected species surveys (or other species of significant nature conservation interest) if on the basis of the preliminary assessment or during subsequent surveys, it is considered reasonably likely that protected species may be present.
- 2.13 It is however considered that the survey was sufficiently rigorous to assess the ecological value of the site.

Limitations

- 2.14 This appraisal also does not constitute as a full invasive species survey. All surveys are subject to the conditions on site at the time of the survey. Site surveys are non-intrusive and rely on the visual identification of aboveground growth. If parts of a site are inaccessible, then these areas can often not be surveyed unless they can be viewed from other areas. If any aboveground growth is being managed or has been disturbed or covered, or the below ground growth is dormant, then it may be impossible for us to identify invasive plants in these areas during our non-intrusive survey.

3. Baseline Conditions

Aerial Photography and OS Maps

- 3.1 Aerial photographs and OS maps show the site to consist of a vacant square plot. Historic aerial imagery shows that the site contained a line of garages until 2019. The site is bordered by private gardens to the north and east, and roads to the south and west. The wider surrounds are built-up, predominantly comprising residential properties. There are small areas of open green space associated with public parks and playing fields in the local vicinity, and a larger area of semi-natural habitat to the northeast associated with Ham Lands Local Nature Reserve. The River Thames is approximately 160m to the northeast at its closest point. There appear to be no ponds within 500m of the site.

Statutory and Non-Statutory Designated Sites

Statutory Sites

- 3.2 The only statutory designated site within 1km is Ham Lands Local Nature Reserve (LNR), located 270m to the northeast. Table 1 provides details about this site.

Table 1: Statutory sites within 1km of the site

Site Name	Reason for Designation	Area (ha)	Distance from the Site
Ham Lands LNR	An area of infilled gravel pits, some old water meadows and a narrow belt of woodland. The area has developed into a mosaic of different ecological zones. The site is of considerable value for informal recreation and is well used by local people and children. It is also used by local schools and for educational projects by students and nature groups.	60.01	270m to the northeast

Non-Statutory Sites

- 3.3 The closest non-statutory designated site is River Thames and tidal tributaries Site of Importance for Nature Conservation (SINC), located 160m to the north. Table 2 provides a list of non-statutory sites within 1km of the site.

Table 2: Non-statutory sites within 1km of the site

Site Name	Reason for Designation	Area (ha)	Distance from the Site
River Thames and tidal tributaries SINC	The Thames is home to many fish and birds, creating a wildlife corridor running right across the capital.	2304.92	160m to the northeast
Churchyard of St Mary with St Alban, Teddington SINC	A churchyard with colourful, flowery grassland and some large trees.	0.56	260m to the southeast
Ham Lands SINC	An area of scrub and grassland beside the River Thames, well known for its remarkably diverse plant life.	72.27	270m to the northeast
Strawberry Hill Golf Course SINC	A small golf course with areas of woodland, scrub and acid grassland, and a patch of heather.	20.39	890m to the northwest
Teddington Cemetery SINC	A Victorian cemetery with mature trees, providing habitat for a range of common birds.	5.49	920m to the northwest

Ancient Woodland

- 3.4 There is no ancient woodland covering any part of the site or immediately adjacent to the site. No trees on or adjacent to the site are listed on the Woodland Trusts' Ancient Tree Inventory.
- 3.5 The closest area of ancient woodland is situated 4.2km to the east.
- 3.6 The closest ancient tree is situated 425m to the north.

Habitats

Site Summary

- 3.7 The site comprised predominantly hardstanding with two small earth mounds covered by ruderal vegetation and sparse bramble along the southern boundary.
- 3.8 The main habitats recorded within the site are described below. Additional details are shown on the habitat survey plan in Appendix A, and photographs are provided in Appendix B.

Hardstanding

- 3.9 The site was almost entirely covered by concrete. This included raised foundations with trenches in between.

- 3.10 Small amounts of moss and colonising ruderal plants were seen growing from cracks in the concrete and in the trenches. A few stumps from previously felled larger plants, most likely buddleia (*Buddleja davidii*), were also seen.

Earth Mounds with Ruderal Vegetation

- 3.11 There were two small mounds of earth on the site that had been colonised by ruderal vegetation.
- 3.12 Species noted include Canadian fleabane (*Erigeron canadensis*), common nettle (*Urtica dioica*), dandelion (*Taraxacum* sp.), sycamore saplings (*Acer pseudoplatanus*), and buddleia.

Sparse Bramble

- 3.13 Sparse bramble (*Rubus fruticosus* agg.) was seen growing along the fence line on the site's southern boundary.

Protected Species

- 3.14 Legislation relating to the protected species referred to in this section is included in Appendix C.
- 3.15 The following paragraphs detail the suitability of the on-site habitats to support protected species and include information from the data search for protected, rare and otherwise notable species returned within a 1km radius.

Bats

- 3.16 The data search showed records of bats from the genera pipistrelle (*Pipistrellus*), serotine (*Eptesicus*), myotis (*Myotis* sp.), and noctule/Leisler's (*Nyctalus*) occurring within the 1km search area in the past 15 years.
- 3.17 The site contained no buildings or trees, therefore there were no features suitable for roosting bats.
- 3.18 Overall it was considered that the site offered **negligible** potential for roosting bats.

Amphibians

- 3.19 The data search showed no records of great crested newt within 1km of the site within the past 15 years. Aerial photographs and maps show no ponds or drainage ditches within 500m of the site.
- 3.20 During the survey no features were seen that could support breeding, foraging, or commuting newts. The urban nature of and lack of ponds in the surrounding area also make it highly unlikely that newts are present in the local vicinity.
- 3.21 It was considered that the site offered **negligible** potential for breeding newts and **negligible** potential for foraging and commuting newts.

Reptiles

- 3.22 The data search showed no records of reptiles within 1km of the site within the past 15 years.
- 3.23 The habitat on the site was not considered to be suitable for reptiles.
- 3.24 Overall the site was assessed as having **negligible** potential to support reptiles.

Birds

- 3.25 Several Red or Amber listed Birds of Conservation Concern¹ (BoCC), and notable² bird species were returned by the data search that may utilise habitats within the surrounding area. Species include herring gull (*Larus argentatus*) and house sparrow (*Passer domesticus*).
- 3.26 There were no buildings and no vegetation on the site suitable for supporting nesting birds.
- 3.27 Overall it was considered that the site offered **negligible** potential for breeding birds.

Badgers

- 3.28 The data search showed records of badger within 1km of the site within the past 15 years.
- 3.29 The habitats on site were not suitable for either breeding or foraging badgers.
- 3.30 Overall, the site offered **negligible** potential for breeding badgers and **negligible** potential for foraging and commuting badgers.

Hazel Dormice

- 3.31 The data search showed no records of dormice within 1km of the site within the past 15 years.
- 3.32 The site did not contain the type or density of vegetation that would be suitable for supporting either breeding or commuting dormice.
- 3.33 Overall it was considered that the site offered **negligible** potential to support breeding dormice and **negligible** potential to support commuting dormice.

¹ Birds of Conservation Concern status is prioritised into high concern (Red), medium concern (Amber) and low concern (Green) (Eaton et al, 2009). Red-list species are those that are globally threatened according to the IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and have not shown a substantial recent recovery. Amber-list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations. Green-list species are those that fulfil none of the criteria.

² Notable Birds are based on a list of birds that are particularly scarce or vulnerable either at national or a regional level. The majority of these bird species are designated as Schedule 1 species, under the Wildlife and Countryside Act 1981 (as amended), or listed as red or amber-listed BoCC.

Water Voles

- 3.34 The data search showed a single record of water vole within the 1km search area in the past 15 years.
- 3.35 The site did not contain the aquatic habitat and vegetation types that would support breeding, foraging or commuting water vole.
- 3.36 Overall it was considered that the site offered **negligible** potential to support breeding water voles and **negligible** potential to support commuting and foraging water voles.

Otters

- 3.37 The data search showed no records of otter within 1km of the site within the past 15 years.
- 3.38 The site did not contain the aquatic habitat and vegetation types that would support breeding, foraging or commuting otters.
- 3.39 Overall it was considered that the site offered **negligible** potential to support breeding otter and **negligible** potential to support foraging and commuting otter.

Hedgehogs

- 3.40 The data search showed records of hedgehogs (*Erinaceus europaeus*) within 1km of the site within the past 15 years.
- 3.41 There was no evidence of hedgehogs or the habitat they require seen during the survey.
- 3.42 Overall, the site offered **negligible** potential for hedgehogs.

Stag Beetles

- 3.43 The data search showed records of stag beetle (*Lucanus cervus*) within 1km of the site within the past 15 years.
- 3.44 There was no evidence of stag beetle or the habitat they require seen during the survey.
- 3.45 Overall, the site offered **negligible** potential for stag beetle.

Invasive Plants

- 3.46 The data search showed records of Japanese knotweed (*Reynoutria japonica*) occurring within the 1km search area in the past 15 years. This plant is listed as invasive in Schedule 9, Part II, of the Wildlife and Countryside Act (1981 amended).

- 3.47 During the survey specimens of buddleia (*Buddleja davidii*) were seen (see Photograph 1 in Appendix B). While not listed in Schedule 9 of the Wildlife and Countryside Act (1981 amended), it appears on the Non Native Species Secretariat (NNSS, 2022)³ and the London Invasive Species Initiative (LISI, 2022)⁴ as a species of concern.

³ GB Non Native Species Secretariate (NNSS) (2022). Accessed from www.nonnativespecies.org

⁴ London Invasive Species Initiative (LISI) (2022). Accessed from www.londonisi.org.uk.

4. Evaluation

- 4.1 On the basis of the information available from the habitat survey and desk study, the site has been evaluated in terms of its potential for biodiversity, support of protected species and habitats, and the contribution the area makes as part of the wider landscape. The nature conservation value of the site has been assessed following standard criteria developed by CIEEM (2017 and 2018) and in accordance with BS 24040:2013 Biodiversity – code of practice for planning and development. This is provided below.
- 4.2 The biodiversity value of protected species within the site is a preliminary evaluation based upon the desk study records, habitat suitability, and the conservation status of the species in question. It should be noted that where European Protected Species (EPS) or species of Principle Importance for the Conservation of Biodiversity are present on-site they may be valued at a lower level/scale where it is considered likely that populations would not be of sufficient importance to justify designation at a higher level. However, regardless of their biodiversity value, such species are still subject to national and/or European legislation.
- 4.3 Key aspects of relevant planning policy regarding conservation, including an explanation of species referred to as being of 'Principal Importance for Conservation of Biodiversity' and European Protected Species and habitats, are provided in the Legislation section in Appendix C.

Geographic Evaluation

Features of International Importance

- 4.4 Features of International Importance are principally sites covered by international legislation or conventions. The Conservation of Habitats and Species Regulations 2017 (as amended) implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive) in England and Wales. The Regulations mainly deal with the protection of sites with certain habitats and populations of species that are important for nature conservation in a European context, i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).
- 4.5 The site is not subject to any international statutory nature conservation designations. The closest site of International Importance is Richmond Park SAC which is located 2.5km to the east. The designated feature of this SAC is stag beetle. The site does not provide any supporting habitat for this designated site.

Features of National Importance

- 4.6 Features of national importance include Sites of Special Scientific Interest (SSSIs) which are designated under the Wildlife and Countryside Act 1981 (as amended). The site is not subject to any national statutory nature conservation designations and it is not considered that any habitats or populations or assemblages of species within the site would meet the criteria for the designation of SSSIs at an appropriate geographic level⁵.
- 4.7 The closest designated site of national importance for nature conservation is Bushy Park and Home Park SSSI which is located 1.1km to the south. The site does not provide any supporting habitat for this SSSI.
- 4.8 The site is also located within the 3km Impact Risk Zone of Richmond Park SSSI, the 5km Impact Risk Zones of Kempton Park Reservoirs SSSI and Syon Park SSSI, and the 10km Impact Risk Zone of Wimbledon Common SSSI, but the site does not have any supporting habitat for these SSSIs.

Features of Regional (i.e. Greater London) Importance

- 4.9 The site does not include any features of value at this level neither is it likely to be selected as a SINCC based on the results of the current survey.

Features of District (i.e. London Borough of Richmond) Importance

- 4.10 The site is small and does not support any features that were considered to be of value at this level.

Features of Local (i.e. Teddington) Importance

- 4.11 The site does not support any features that were considered to be of value at this level.

Features of Value Immediate Vicinity (c. 250m) of the Project

- 4.12 The site is of very low ecological value with minimal vegetation and provides no suitable habitat to support protected species. It isn't considered to contribute notably to the wider ecological network of habitats in the locality.

Summary



- 4.13 Overall on the basis of the survey results and the above criteria, the site is considered to be of very low ecological importance. The site contains minimal vegetation and has no suitable habitat to support protected species.

⁵ JNCC Guidelines for selection of biological SSSIs (see <http://jncc.defra.gov.uk/page-2303#download>).

Local Plan Evaluation

- 4.14 It is considered that the statutory London Borough of Richmond Upon Thames Local Plan (Adopted 2018) contains the following nature conservation policies relevant to the site. A list of the policies is provided below. The full text of the relevant policies is contained in the Legislation section in Appendix C and this should also be referred to.

London Borough of Richmond Upon Thames Local Plan (2018)

-  Policy LP 15 – Biodiversity.
-  Policy LP 16 – Trees, Woodlands and Landscape.

5. Discussion and Recommendations

Discussion

- 5.1 The survey site is located to the rear of 35 Twickenham Road, Teddington, TW11 8AH. The survey area extended over approximately 230m². Habitats to be impacted by the development proposals include hardstanding, earth mounds with ruderal vegetation, and sparse bramble.
- 5.2 Design proposals include the construction of two residential dwellings.
- 5.3 The desk study has revealed that the site is situated in an urban location surrounded by predominantly residential properties. The site is not subject to any statutory or non-statutory designations. The closest statutory site is Ham Lands LNR located 270m to the northeast.
- 5.4 Habitats within the proposed development area were assessed as being of very low ecological value, with negligible potential to support protected species.
- 5.5 It is not considered that any protected species pose a constraint to the proposed development.
- 5.6 It is recommended that the buddleia is removed from the site.
- 5.7 Details regarding habitat protection and enhancement measures are provided below.

Recommendations

Habitat Retention

- 5.8 Any adjacent off-site trees should be protected in accordance with British Standards (BS 2012) 5837:2012 Trees in Relation to Design, Demolition and Construction. The root protection areas of any retained trees must be left free from excavation and disturbance, and protected during any proposed works. Protection should be in the form of fencing and signs installed for the duration of the works.

Habitat Enhancement

- 5.9 New development offers the opportunity for habitat enhancement in accordance with national and local planning policy and some recommendations are included below.

Control of Invasive Non-Native Species (INNS)

- 5.10 We recommend that a member for the Property Care Association Invasive Weed Control Group (PCA IWCG) is contacted to manage the buddleia on the site. This species should be removed from the site as part of the proposed development.

Bird and Bat Boxes and Bricks

- 5.11 Additional bird nesting and bat roosting provision could be incorporated into new design proposals. These could be incorporated into the new building design. Some recommendations are made below as a guide.
- 5.12 Bat roosting opportunities could be provided through the installation of boxes on the outside of the walls, such as the Schwegler 2F, or other makes of a similar design, such as Chavenage Bat box. There are a range of bat boxes available and these can be selected to suit the development and bat species in the locality.
- 5.13 Bird boxes could be installed on the walls of the new building which could include the following Schwegler bird house or 1B makes, or similar designs from alternative suppliers. If the client is happy for bird boxes to be installed on the walls of the new building then a Schwegler sparrow terrace 1SP could also be used.
- 5.14 Further details of the bird and bat boxes are provided in Appendix F.
- 5.15 Bat boxes should be installed at appropriate locations ideally with south-east, south, or south-west facing aspects at least 3m from ground level. Ideally they need to be exposed to 6-8 hours of direct sunlight, but sheltered from strong winds. If installed on the building, these should ideally be positioned directly below the eaves.
- 5.16 Bird Boxes should be located out of prevailing wind, rain, and strong sunlight, ideally with a clear flight path to the entrance. Ideally they should be installed two to four metres from the ground facing north or north-east.

Wildlife Friendly Pathways

- 5.17 The increase in building can result in ecological areas which are unconnected. Effectively these are ecological islands, and often there is no way for wildlife to migrate to and from these areas. One way to reduce the impact and allow wildlife, including hedgehogs, to migrate across sites is to install wildlife friendly pathways across a site. This can include a range of things such as wildlife corridors, such as hedgerows and scrub or rough grassland corridors, but also installing holes in fences. Wildlife holes, often referred to as hedgehog holes, help wildlife migrate through areas. The holes need to be at least 13cm by 13cm, at ground level.

Compensatory Planting

- 5.18 Additional tree and shrub planting could be incorporated into the landscape proposals to compensate for any removal to facilitate the works. Planting should include a high proportion of native species and be of local provenance where possible. These should be carefully selected to ensure they contain species suitable for the area. Some species of known wildlife value are listed in Appendix E.

6. Conclusions

- 6.1 The site survey revealed the following habitats:
- Hardstanding;
 - earth mounds with ruderal vegetation; and
 - sparse bramble.
- 6.2 The site is not subject to any statutory or non-statutory designations. The closest statutory site is Ham Lands LNR which is located approximately 270m to the northeast at its closest point and the survey area does not support any features that contribute to the designation of this site.
- 6.3 No further protected species surveys are recommended for the site. Protected species are not considered to pose a constraint to the proposed development.
- 6.4 It has been recommended that the buddleia is removed from the site.
- 6.5 It has also been recommended that the site is enhanced by introducing some compensatory planting and installing bat and bird boxes.

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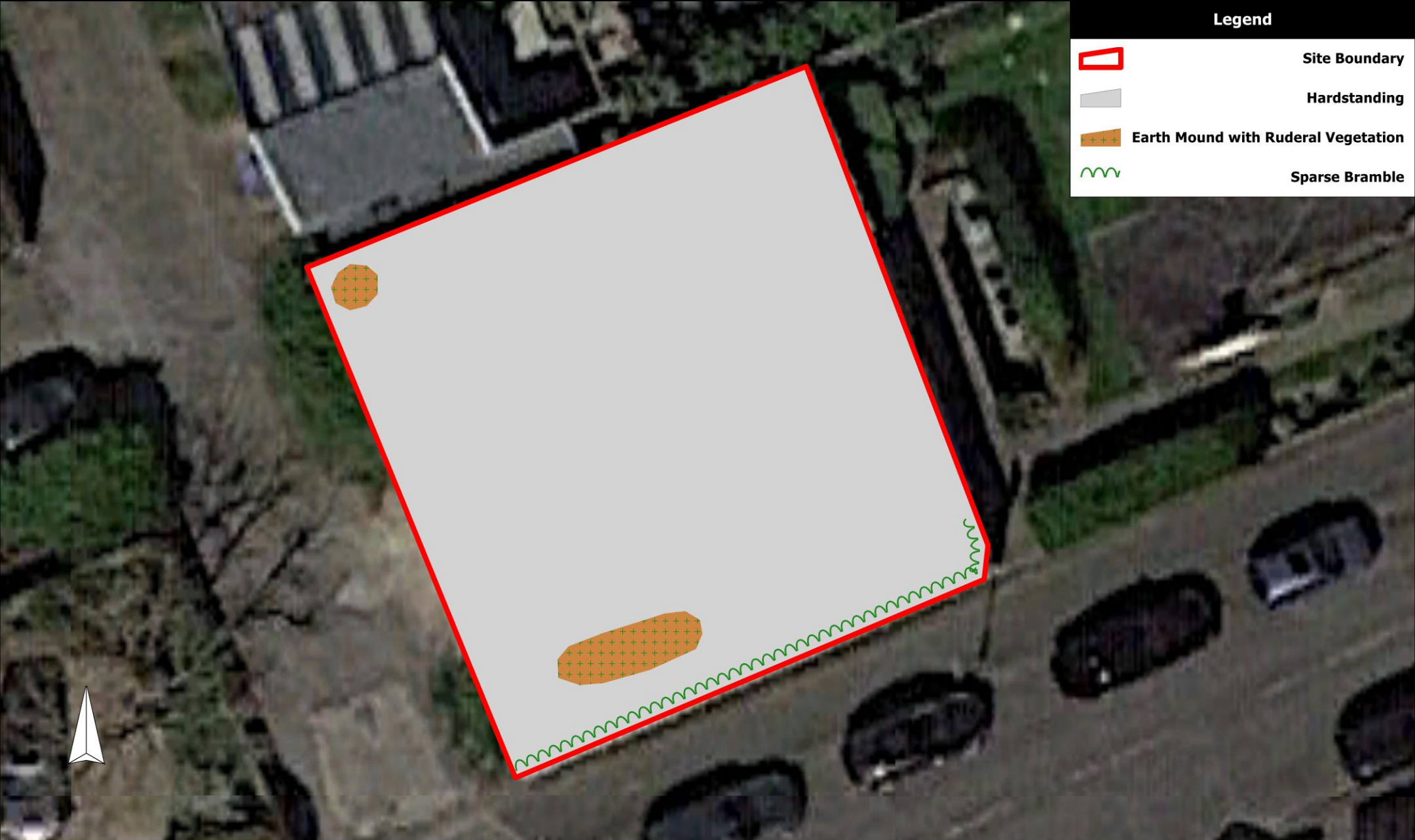
8. Glossary of Terms

BAP	Biodiversity Action Plan
BRC	Biological Records Centre
CIEEM	Chartered Institute of Ecology and Environmental Management
Habitats Directive	Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora
LNR	Local Nature Reserve
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographical Information for the Countryside
NNR	National Nature Reserve
Nomenclature	The system of devising of names for plants
NPPF	National Planning Policy Framework
PCA IWCG	Property Care Association Invasive Weed Control Group
PEA	Preliminary Ecological Appraisal- formerly referred to as a Phase 1 Habitat Survey
SAC	Special Area of Conservation
SINC	Site of Importance for Nature Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

Figures and Appendices

Appendix A

Habitat Map



Legend





-  **Site Boundary**
-  **Hardstanding**
-  **Earth Mound with Ruderal Vegetation**
-  **Sparse Bramble**

Figure 1: Rear of 35 Twickenham Road Habitat Survey Map

Drawn by: NA
 On the: 21/11/2022
 Not to Scale
 Ref: 11856

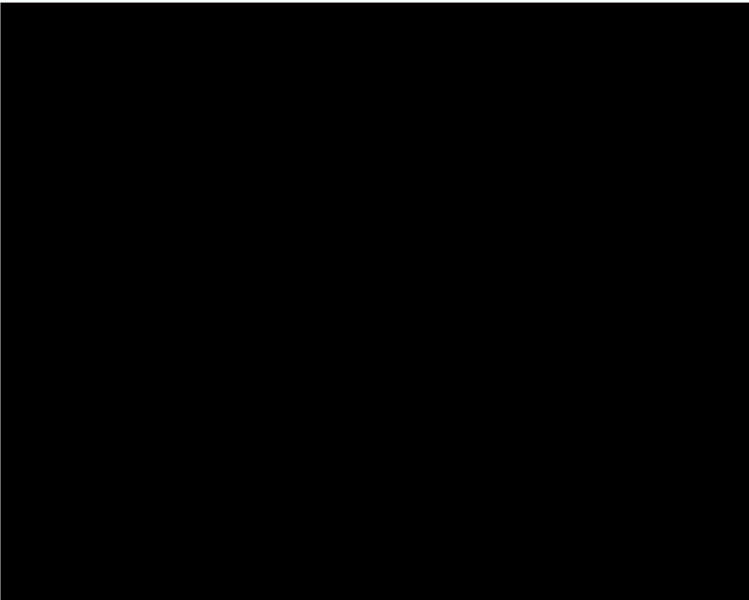
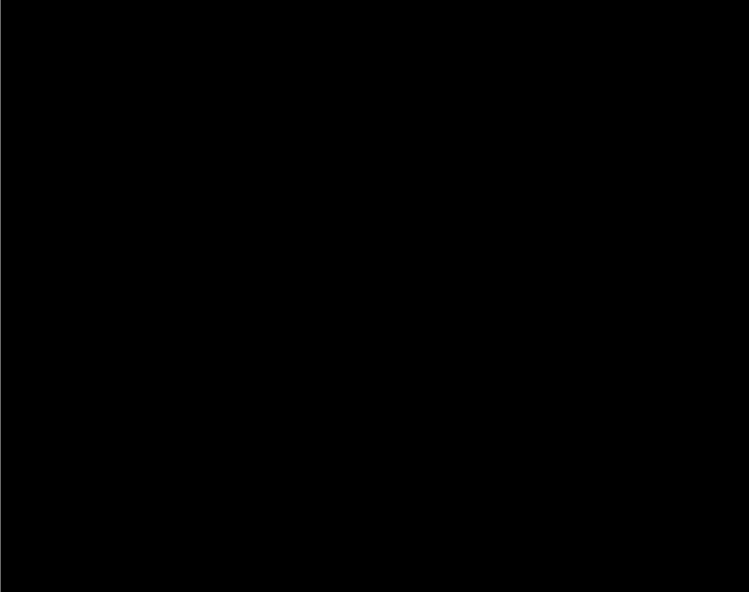


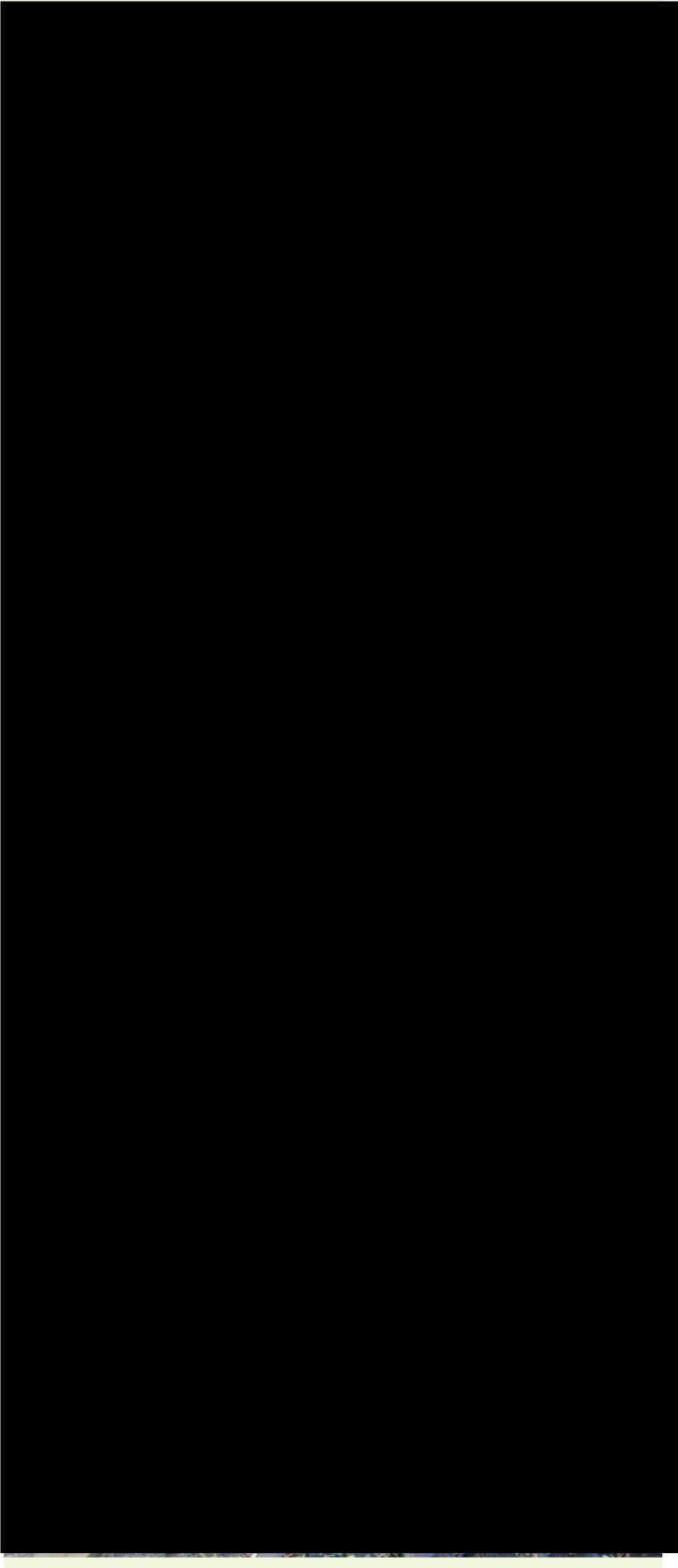
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Appendix B

Photographs

Photographs

Photo No.	Feature	Photograph of Feature
1	Buddleia (<i>Buddleja davidii</i>) growing on the site, a non-native species of concern.	
2	The site, covered by concrete with some moss and colonising ruderal plants.	

3	The site, covered by concrete with some moss and colonising ruderal plants.	
4	A mound of earth, covered by ruderal vegetation.	
5	Sparse bramble along the southern site boundary.	

Appendix C

Legislation

Legislation

This section contains information pertaining to the legislation and planning policy applicable in Britain. This information is not applicable to Northern Ireland, the Republic of Ireland the Isle of Man or the Channel Islands. Information contained in the following appendix is provided for guidance only.






Species

The objective of the EC Habitats Directive⁶ is to conserve plants and animals which are considered to be rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and also implements the obligations set out for species protection from the Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Various amendments have been made since the Wildlife & Countryside Act came into force in 1981. Further details pertaining to alterations of the Act can be found on the following website: www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

There are a number of other legislative Acts affording protection to species and habitats. These include:

-  Countryside and Rights of Way (CRoW) Act 2000;
-  Deer Act 1991;
-  Natural Environment & Rural Communities (NERC) Act 2006;
-  Protection of Badgers Act 1992; and
-  Wild Mammals (Protection) Act 1996.

Badgers

Badgers and their setts are protected under the Protection of Badgers Act (1992), which consolidated and added to the previous Badger Acts of 1973 and 1991. Under this legislation it is an offence to:

-  cruelly ill-treat a badger, including use of tongs and digging;

⁶ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

- 🌿 intentionally or recklessly cause a dog to enter a badger sett;
- 🌿 intentionally or recklessly damage, destroy or obstruct access to a badger sett⁷ or any part thereof;
- 🌿 intentionally or recklessly disturb⁸ a badger when it is occupying a badger sett;
- 🌿 possess or control a dead badger or any part of a badger;
- 🌿 sell or offers for sale, possesses, or has under his control, a live badger; and
- 🌿 wilfully kill, injure, take, or attempt to kill, injure, or take a badger.

A Development Licence will be required from Natural England for any development works affecting an active badger sett, or to disturb badgers while individuals are occupying the sett. Depending on the nature of the works and the specifics of the sett, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. Natural England has issued guidelines on what constitutes a licensable activity. There is no provision in law for the capture of badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

Bats

Bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This act protects individuals from:

- 🌿 intentional or reckless disturbance (at any level);
- 🌿 intentional or reckless obstruction of access to any place of shelter or protection; and
- 🌿 selling, offering, or exposing for sale, possession or transporting for purpose of sale.

In addition, all species of bat are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- 🌿 deliberate killing, injuring, or capturing of Schedule 2 species (all bats);
- 🌿 deliberate disturbance of bat species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.

⁷ A badger sett is defined in the legislation as "any structure or place which displays signs indicating current use by a badger". This includes seasonally used setts. Natural England (2009) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

⁸ For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing. www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

- 🌿 deliberate disturbance of bat species as to affect significantly the local distribution or abundance of the species;
- 🌿 damage or destruction of a breeding site or resting place; and
- 🌿 keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part thereof.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake activities listed above. A licence is required to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Breeding Birds

Under the Wildlife & Countryside Act, 1981 (as amended), a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds, however, are not included in this definition (except for limited parts of the Act). They are covered by the Games Acts, which fully protect them during the closed season.

Under the Wildlife & Countryside Act, 1981 (as amended), all birds, their nests and eggs are protected under Sections 1-8 of the Act and it is an offence, with certain exceptions, to:

- 🌿 intentionally (or recklessly in Scotland) kill, injure, or take any wild bird;
- 🌿 intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built;
- 🌿 intentionally take or destroy the egg of any wild bird;
- 🌿 have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act;
- 🌿 have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act;
- 🌿 use traps or similar items to kill, injure or take wild birds;
- 🌿 have in one's possession or control any bird (dead or alive) unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations; and
- 🌿 in Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest.

Certain rare species receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- 🌿 intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- 🌿 intentional or reckless disturbance of dependent young of such a bird;

- in Scotland only, intentional or reckless disturbance whilst lekking; and
- in Scotland only, intentional or reckless harassment.

The British Trust for Ornithology (BTO) has a list of birds that are Species of Conservation Concern. These birds are not legally protected but where they are found on site they should be given planning consideration. The criteria for birds listed as amber (medium conservation concern) include:

- historical population decline during 1800-1995, but recovering: population has more than doubled over last 25 years;
- moderate (25-49%) decline in UK breeding population over last 25 years;
- moderate (25-49%) contraction of UK breeding range over last 25 years;
- moderate (25-49%) decline in UK non-breeding population over last 25 years;
- species with unfavourable conservation status in Europe (Species of conservation Concern);
- five year mean of breeding pairs in the UK;
- ≥50% of UK breeding population in 10 or fewer sites;
- ≥50% of UK non-breeding population in 10 or fewer sites;
- ≥20% of European breeding population in UK; and
- ≥20% of NW European (wildfowl), East Atlantic Flyway (waders) or European (others) non-breeding populations in UK.

Hazel Dormice

The hazel dormouse (*Muscardinus avellanarius*) is fully protected under The Conservation of Habitats and Species Regulations 2017 through its inclusion on Schedule 2. Regulation 41 prohibits:

- deliberate killing, injuring, or capturing;
- deliberate disturbance as to impair its ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- deliberate disturbance as to affect significantly the local distribution or abundance of the species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of this species.

The hazel dormouse is also currently protected under the Wildlife and Countryside Act 1981 (as amended) through its inclusion on Schedule 5. Under this Act, this species is additionally protected from:

- intentional or reckless disturbance;

- 🌿 intentional or reckless obstruction of access to any place of shelter or protection; and
- 🌿 selling, offering or exposing for sale, possession or transporting for purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect dormouse breeding or resting places (N.B. this is usually taken to mean dormouse 'habitat') or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence will allow derogation from the relevant legislation but will also to enable appropriate mitigation measures to be put in place and monitored.

Herpetofauna (Reptiles and Amphibians)

The following species receive full protection under the Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2.

- 🌿 sand lizard (*Lacerta agilis*);
- 🌿 smooth snake (*Coronella austriaca*);
- 🌿 natterjack toad (*Epidalea calamita*);
- 🌿 great crested newt (*Triturus cristatus*); and
- 🌿 pool frog (*Pelophylax lessonae*).

Under this legislation, Regulation 41 prohibits:

- 🌿 deliberate killing, injuring or capturing of species listed on Schedule 2;
- 🌿 deliberate disturbance of any Schedule 2 species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- 🌿 deliberate disturbance of any Schedule 2 species as to affect significantly the local distribution or abundance of the species;
- 🌿 deliberate taking or destroying of the eggs of a Schedule 2 species;
- 🌿 damage or destruction of a breeding site or resting place; and
- 🌿 keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of a species.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- 🌿 intentional or reckless disturbance (at any level);
- 🌿 intentional or reckless obstruction of access to any place of shelter or protection; and

- ☘ selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). These species include:

- ☘ adder (*Vipera berus*);
- ☘ grass snake (*Natrix natrix*);
- ☘ common lizard (*Zootoca vivipara*); and
- ☘ slow-worm (*Anguis fragilis*).

Under this legislation, for these species it is prohibited under Section 9(1) & (5) to:

- ☘ intentionally (or recklessly in Scotland) kill or injure these species; or
- ☘ sell, offer, or expose for sale, possess, or transport for purpose of sale these species, or any part thereof.

The following species are listed in respect to Section 9(5) of Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) which only affords them protection against sale, offering or exposing for sale, possession, or transport for the purpose of sale:

- ☘ common frog (*Rana temporaria*);
- ☘ common toad (*Bufo bufo*);
- ☘ smooth newt (*Lissotriton vulgaris*); and
- ☘ palmate newt (*L. helveticus*).

Water Voles

The water vole (*Arvicola amphibius*) (= *terrestris*) is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- ☘ intentionally kill, injure, or take (capture) this species;
- ☘ intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- ☘ intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection; and
- ☘ sell, offer, or expose for sale, or have in his possession or transport for the purpose of sale, any live or dead water vole or part of this species.

Where development works are liable to affect habitats known to support water voles, Natural England must be consulted. All alternative design options must have been explored and communicated to Natural England in order to demonstrate that works have tried to avoid contravening the legislation e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable etc. Conservation licences for the capture and translocation of water voles may be issued by Natural England for the purpose of development activities if it can be shown that the

activity has been properly planned and executed and thereby contributes to the conservation of the population.

Otters

Otters (*Lutra lutra*) are fully protected under The Conservation of Habitats and Species Regulations 2017 through their inclusion on Schedule 2. Regulation 41 prohibits:

- deliberate killing, injuring, or capturing of otters;
- deliberate disturbance as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- deliberate disturbance as to affect significantly the local distribution or abundance of the species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of this species.

Otters also receive protection under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- intentional or reckless disturbance (at any level);
- intentional or reckless obstruction of access to any place of shelter or protection; and
- selling, offering, or exposing for sale, possession or transporting for purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect breeding or resting places or for activities likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Wild Mammals

All wild mammals are protected against intentional acts of cruelty under the Wild Mammals (Protection) Act 1996. Under this legislation it is an offence to:

- mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention of this legislation, due care and attention should be taken when carrying out works that have the potential to impact any wild mammal as described above.

Plants

Wild plants are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Some rare plant species also receive full protection under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits:

- 🌿 intentionally (or recklessly in Scotland) picking, uprooting, or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only); and
- 🌿 selling, offering, or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or parts.

In addition to the legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2017. Regulation 45 makes it an offence to:

- 🌿 deliberately pick, collect, or destroy a wild Schedule 5 species; and
- 🌿 be in possession of, or control, transport, sell, or exchange any wild live or dead Schedule 5 species or anything derived from it.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect species of plant listed under The Conservation of Habitat and Species Regulations 2017.

Invasive Plant Species

Certain plants are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Species include:

- 🌿 Japanese knotweed (*Reynoutria japonica*);
- 🌿 giant hogweed (*Heracleum mantegazzianum*);
- 🌿 Himalayan balsam (*Impatiens glandulifera*);
- 🌿 certain species of rhododendron (*Rhododendron* sp.); and
- 🌿 certain species of cotoneaster (*Cotoneaster* sp.).

Species listed are non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to:

- 🌿 plant or otherwise cause these species to grow in the wild.

This legislation makes it is an offence to cause species listed to grow in the wild. Therefore, if they are present on site and development activities have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this.

Habitats

International Statutory Designations

- Special Protection Areas (SPAs): Terrestrial SPAs are afforded protection by The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and offshore SPAs are afforded protection under The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). SPAs are designated under the EC Birds Directive (Council Directive 2009/147/EC on the Conservation of Wild Birds). SPAs are areas recognised as important habitat for rare and migratory birds within the European Union (rare birds as listed on Annex I of the Directive).
- Special Areas of Conservation (SACs): These areas are designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora), designated for the habitats and (non-bird) species listed on Annexes I and II to the Directive under the same regulations as detailed for SPAs.
- Ramsar sites: These areas are wetlands designated under the Convention on Wetlands of International Importance (1971). Wetlands can include areas of marsh, fen, water, or peatland and may be natural or artificial, permanent, or temporary. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000.

National Statutory Designations

- Sites of Special Scientific Interest (SSSIs): These sites are designated by the countryside agencies (for example Natural England) under the Wildlife & Countryside Act 1981 (as amended). Prior to 1981 these were designated under the National Parks and Access to the Countryside Act 1949. Improved mechanisms for the protection of SSSIs have also been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).
- National Nature Reserves: These sites are also designated by the countryside agencies under the Wildlife & Countryside Act 1981 (as amended).

Local Statutory Designations

- 1949 Local Nature Reserves (LNRs): These sites are designated by local authorities under the National Parks and Access to the Countryside Act 1949. These are sites recognised for their wildlife or geological interest at a local level and are managed for nature conservation.

Non-Statutory Designations

- Local Wildlife Sites: Areas of local conservation interest may be designated by local authorities. The terminology for these sites varies depending on the county. They can be called Sites of Nature Conservation Importance (SNCI's), Sites of Importance for Nature Conservation (SINCs), County Wildlife Sites (CWS), Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), and Sites of Biological Importance (SBIs). The designation criteria may vary between counties. Local Wildlife Sites are of material consideration when planning applications are being determined.
- The Hedgerow Regulations 1997: These have been compiled to protect 'important' countryside hedgerows from damage or removal. A hedgerow is considered important if it (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations. Under the Regulations, it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Hedgerows covered by these regulations include those on or adjacent to common land, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry, and land used for the keeping or breeding of horses, ponies, or donkeys.

National Planning Policy

- The National Planning Policy Framework (NPPF) (2021) replaces the former NPPF 2019, 2018 and 2012, and the former PPS9 document and emphasises the need for sustainable development. The Framework specifies the need to protect and enhance biodiversity and geodiversity, identify and safeguard components of local wildlife-rich habitats and wider ecological networks including the hierarchy of international, national, and locally designated sites of importance for biodiversity; wildlife corridors; and stepping that connect them. Plus partnerships for habitat management, enhancement, restoration, or creation. The Framework aims to promote the conservation, restoration, and enhancement of priority habitats, ecological networks, and the protection and recovery of priority species. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; appropriate mitigation or compensation measures are in place where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

Local Planning Policy

London Borough of Richmond Upon Thames Local Plan (2018)

Policy LP 15 - Biodiversity

- A. The Council will protect and enhance the borough's biodiversity, in particular, but not exclusively, the sites designated for their biodiversity and nature conservation value, including the connectivity between habitats. Weighted priority in terms of their importance will be afforded to protected species and priority species and habitats including National Nature Reserves, Sites of Special Scientific Interest (SSSI) and Other Sites of Nature Importance as set out in the Biodiversity Strategy for England, and the London and Richmond upon Thames Biodiversity Action Plans. This will be achieved by:
1. protecting biodiversity in, and adjacent to, the borough's designated sites for biodiversity and nature conservation importance (including buffer zones), as well as other existing habitats and features of biodiversity value;
 2. supporting enhancements to biodiversity;
 3. incorporating and creating new habitats or biodiversity features, including trees, into development sites and into the design of buildings themselves where appropriate; major developments are required to deliver net gain for biodiversity, through incorporation of ecological enhancements, wherever possible;
 4. ensuring new biodiversity features or habitats connect to the wider ecological and green infrastructure networks and complement surrounding habitats;
 5. enhancing wildlife corridors for the movement of species, including river corridors, where opportunities arise; and
 6. maximising the provision of soft landscaping, including trees, shrubs and other vegetation that support the borough-wide Biodiversity Action Plan.
- B. Where development would impact on species or a habitat, especially where identified in the relevant Biodiversity Action Plan at London or local level, or the Biodiversity Strategy for England, the potential harm should:
1. firstly be avoided (the applicant has to demonstrate that there is no alternative site with less harmful impacts),
 2. secondly be adequately mitigated; or
 3. as a last resort, appropriately compensated for.

Policy LP 16 – Trees, Woodlands and Landscape

- A. The Council will require the protection of existing trees and the provision of new trees, shrubs and other vegetation of landscape significance that complement existing, or create new, high quality green areas, which deliver amenity and biodiversity benefits.

- B. To ensure development protects, respects, contributes to and enhances trees and landscapes, the Council, when assessing development proposals, will:

Trees and Woodlands

1. resist the loss of trees, including aged or veteran trees, unless the tree is dead, dying or dangerous; or the tree is causing significant damage to adjacent structures; or the tree has little or no amenity value; or felling is for reasons of good arboricultural practice; resist development that would result in the loss or deterioration of irreplaceable habitat such as ancient woodland;
2. resist development which results in the damage or loss of trees that are considered to be of townscape or amenity value; the Council will require that site design or layout ensures a harmonious relationship between trees and their surroundings and will resist development which will be likely to result in pressure to significantly prune or remove trees;
3. require, where practicable, an appropriate replacement for any tree that is felled; a financial contribution to the provision for an off-site tree in line with the monetary value of the existing tree to be felled will be required in line with the 'Capital Asset Value for Amenity Trees' (CAVAT);
4. require new trees to be of a suitable species for the location in terms of height and root spread, taking account of space required for trees to mature; the use of native species is encouraged where appropriate;
5. require that trees are adequately protected throughout the course of development, in accordance with British Standard 5837 (Trees in relation to design, demolition and construction – Recommendations).

The Council may serve Tree Preservation Orders or attach planning conditions to protect trees considered to be of value to the townscape and amenity and which are threatened by development.

Landscape

1. require the retention of important existing landscape features where practicable;
2. require landscape design and materials to be of high quality and compatible with the surrounding landscape and character; and
3. encourage planting, including new trees, shrubs and other significant vegetation where appropriate.

Appendix D

Plant Species List

Plant Species List

Scientific nomenclature follows Stace (2010) for vascular plant species and British Bryological Society (BBS) Special Volume No. 5 *English Names for British Bryophytes* for bryophyte species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. The plant species list was generated as part of a Phase 1 Habitat survey and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally

Key to qualifiers: G=garden origin, P=planted, Y = young, S=seedling or sucker, T=tree, H=hedge, W=water, ? = identification uncertain.

Scientific Name	Common Name	Abundance	Qualifier
<i>Acer pseudoplatanus</i>	Sycamore	R	S
<i>Buddleja davidii</i>	Buddleia	O	Y
<i>Erigeron canadensis</i>	Canadian fleabane	O	
<i>Rubus fruticosus</i> agg.	Bramble	O	Y
<i>Taraxacum</i> sp.	Dandelion	O	
<i>Urtica dioica</i>	Common nettle	O	

Appendix E

Suggested Compensatory Planting

Suggested Compensatory Planting

This section provides a list of plants which are of proven value to wildlife. The list is not exhaustive and merely provides a guide for suggested planting for wildlife value. Planting should be tailored on a site by site basis. The list includes some native and ornamental species however the emphasis should always be on the use of predominantly native species.

N = Native, NN = Non-native.

This list includes species that may be harmful if handled or ingested. Schedule 9 (Part 2) of the Wildlife and Countryside Act, 1981 (as amended) includes a list of invasive plants, including aquatic species, that should always be avoided in planting schemes.

Large Shrubs

Hedge veronica/Hebe (*Veronica* spp.) NN

Hawthorn (*Crataegus monogyna*) N

Blackthorn (*Prunus spinosa*) N

Rose: dog rose (*Rosa canina*), field rose (*R. arvensis*), burnet rose (*R. pimpinellifolia*) N

California lilac (*Ceanothus* spp.): (*C. arborea*) NN

Wild privet (*Ligustrum vulgare*) N

Common holly (*Ilex aquifolium*) N

Barberry (*Berberis* spp.): (*B. darwinii*), (*B. thunbergii*), (*B. x stenophylla*) NN

Daisy Bush (*Olearia* spp.): (*O. x hastii*), (*O. macrodonta*), (*O. traversii*) NN

Firethorn (*Pyracantha coccinea*) NN

Hazel: (*Corylus avellana*) N, (*C. maxima*) NN

Viburnum (*Viburnum* spp.): wayfaring tree (*V. lantana*) N, guelder rose (*V. opulus*) N, laurustinus (*V. tinus*) NN. Note: *V. lantana* can become invasive in more open habitats.

Dogwood (*Cornus sanguinea*) N

Broom (*Cytisus scoparius*) N

Escallonia (*Escallonia macrantha*) NN

Hardy fuchsia (*Fuchsia magellanica*) NN

Buckthorn (*Rhamnus cathartica*) N

Spindle (*Euonymus europaeus*) N

Tutsan (*Hypericum androsaemum*) N

Yew (*Taxus baccata*) N

Trees

Cherry (*Prunus* spp.): wild cherry (*P. avium*), bird cherry (*P. padus*), domestic plum (*P. domestica*) N, or cherry plum (*P. cerasifera*) NN

Ash (*Fraxinus excelsior*) N

Apple (*Malus* spp.): edible apple (*M. domestica*), crab apple (*M. sylvestris*) N

Pear (*Pyrus* spp.): edible pear (*P. communis*) NN

Small-leaved lime (*Tilia cordata*) N

Silver birch (*Betula pendula*) N

Yew (*Taxus baccata*) N

Black poplar (*Populus nigra*) N

Foxglove tree (*Paulownia tomentosa*) NN

Beech (*Fagus sylvatica*) N

Climbers

Jasmine (*Jasminum* spp.): summer jasmine (*J. officinale*), winter jasmine (*J. nodiflorum*) NN

Ivy (*Hedera helix*) N

Climbing hydrangea (*Hydrangea anomala* ssp. *petiolaris*) NN

Honeysuckle (*Lonicera* spp.): (*L. periclymenum*) N

Clematis (*Clematis* spp.) NN

Hop (*Humulus lupulus*) N

Firethorn (*Pyracantha atalantioides*) NN

Bulbs

English bluebell (*Hyacinthoides non-scripta*) N

Squill species (*Scilla* spp.) N/NN

Snowdrop (*Galanthus nivalis*) N

Winter aconite (*Eranthis hyemalis*) E

Crocus species (*Crocus* spp.) NN

Wild Daffodil (*Narcissus pseudonarcissus*) N

Onion species (*Allium* spp.) N/NN. Note: *Allium triquetrum* (three cornered leek) and *Allium paradoxum* (few-flowered leek) are Schedule 9 invasive plant species.

Wood anemone (*Anemone nemorosa*) N



Lesser celandine (*Ficaria verna*) N


Appendix F

Bird and Bat Box Designs



Bird and Bat Box Designs

Bird Boxes

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	Schwegler Nest Box 1B Hole-fronted 26mm entrance hole	16 x 16 x 23	Multi-purpose, including: blue-, marsh-, coal-, and crested tit, and possibly wren. All other species are prevented from using the nest box due to the smaller entrance hole.	Suitable walls or semi-mature/mature trees and shrubs; attached to a tree trunk or hung from branches. Ideal points include discrete areas away from predators, such as against walls, plant, and metal supports.
	Schwegler Bird House 32mm entrance hole	15 x 21 x 33	Multi-purpose, including: great-, blue-, marsh-, and coal tit, redstart, nuthatch, pied flycatcher, and sparrows.	Fixed to a semi-mature/mature tree trunk, wall or fence using the hanging bracket on the back. Between 1.5 m and 3 m high, and should be sited higher if area has a particularly high cat population.

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	Schwegler Sparrow Terrace 1SP	20 x 43 x 24.5	House sparrow. It may also occasionally attract tits, redstarts, and spotted flycatchers.	<p>In an elevated position such as on post/platform within dense shrub/tree planting or on top of lighting columns. Alternatively, they could be attached to the side of a building.</p> <p>The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of houses in built-up areas, and on industrial and agricultural buildings such as barns, sheds, and factories. Due to its weight (15kg), it is not suitable for fences or garden sheds. Ideally place the terrace two metres or more above the ground. Either install on the surface of the wall using the plugs and screws provided or install directly into the wall. Cleaning is not necessary. The front panel can be removed by turning the screw hook.</p>

Bat Boxes

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	2F Schwegler Bat Box (General Purpose) with or without Double Front Panel	16 x 16 x 33	<p>Without panel: Particularly successful with brown long-eared bat. Also used by noctule.</p> <p>With panel: Ideal for crevice-dwelling species: pipistrelles, Myotis species (particularly Daubenton's), Leisler's, and serotine.</p>	<p>On trees or buildings and at a height of 3 to 6m.</p> <p>In open sunny positions and in groups of 3 to 5 facing different directions.</p> <p>Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.</p>
	Chavenage Bat Box	10 x 18 x 38	<p>Small crevice-dwelling bats: e.g. pipistrelles.</p>	<p>On trees in gardens or woodland and also on house walls. 2.5 - 5m high on a building, mature tree, or vegetation line (trees/tall hedge) or on a feeding/flight route in partial daytime sun.</p> <p>Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.</p>



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