

Preliminary Ecological Appraisal

Oxford Road, Reading

September 2020

Preliminary Ecological Appraisal

Oxford Road, Reading

25/09/2020

Stonegate Homes Ltd

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Document Control:

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Non-technical Summary

Phlorum Ltd was commissioned by Stonegate Homes Ltd to undertake a Preliminary Ecological Appraisal which was carried out at Land at Oxford Road, Reading on the 25th August 2020 in order to determine whether any ecological constraints could affect the proposed works for the site.

It is understood current proposals are for the construction of commercial units and apartments. The survey area extended over approximately hectares 0.1(ha).

The main findings of the surveys are as follows:

-  The nearest statutory site is Lousehill Copse LNR located 1.6km to the west of the site.
-  The site consists of the following habitats: hardstanding, ruderal vegetation, scattered shrubs, a timber pile and trees. It is in set in a predominantly set in an urban environment with areas of amenity grassland and, trees and hedges.
-  A precautionary approach to site clearance in respect to breeding birds, badgers and reptiles is recommended to minimise any adverse effect on these species' groups.
-  No further surveys are recommended.
-  Further information on precautionary working practices and additional surveys together with recommended mitigation and enhancement measures are discussed in Section 5.

1. Introduction

Background

- 1.1 Phlorum Ltd has been commissioned by Stonegate Homes Ltd to undertake a Preliminary Ecological Appraisal, to inform the potential ecological constraints of proposed future development of Oxford Road, Reading (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 includes building apartments and commercial units on the site.

Site Description

- 1.6 The site consists of the following habitats: hardstanding, ruderal vegetation, scattered shrubs, a timber pile and individual trees.
- 1.7 The site is located in Reading and set in a predominantly urban setting. The site is bound by buildings to residential houses to the east and shops to the south. To the east is a predominantly pedestrianised area with some car parking spaces and to the north is Curzon Street.
- 1.8 The National Grid Reference for the centre of the site is grid reference SU 69718 73683. The survey area extended over approximately hectares 0.1 (ha).

2. Methodology

Desk Study & Consultations

- 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 2km radius of the site. The data search was based on available information provided by the following sources:
-  Thames Valley Environmental Record Centre (TVERC, 2020);
 -  Multi-Agency Geographical Information for the Countryside (MAGIC, 2020);
 -  Ordnance Survey mapping; and
 -  Aerial photography.

Habitat Survey and Assessment

- 2.2 Phlorum Limited carried out an ecological survey of the site on 25th August 2020. The survey was carried out by a suitably qualified ecologist, Natalie Arscott who has over two years professional experience of undertaking ecological surveys. The weather conditions during the survey were warm and overcast.
- 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 Target notes highlighting a particular feature of ecological interest are provided in Appendix B, with associated photographs.
- 2.6 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

- 2.7 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, 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*); and
 -  Riparian habitat supporting suitable features for water voles (*Arvicola amphibius*) and otters (*Lutra lutra*); and the
 -  Presence of nationally protected and/or invasive plants.
- 2.8 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.
- 2.9 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

- 2.10 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

- 2.11 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.
- 2.12 The survey was carried out mid-way through the growing season and therefore many species may not have been visible above ground or readily identifiable.

- 2.13 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.
- 2.14 It is however considered that the survey was sufficiently rigorous to assess the ecological value of the site.

Limitations

- 2.15 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 above ground 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 above ground 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 be set in an urban area. The site is located within the city of Reading 1.6km to the west of the city centre and 2.3 km to the south of Caversham town.

Statutory and Non-Statutory Designated Sites

Statutory Sites

- 3.2 The closest statutory designated site is LNR Lousehill Copse located 1.6 km to the west of the site. Table 1 provides a list of statutory sites within 2km of the site.

Table 1: Statutory Sites within 2km of the site

Site Name	Reason for Designation	Area (ha)	Distance from the Site
Lousehill Copse	Comprises of natural mature woodland with a pond.	13	1.6km to the west.
Mcilroy park	Contains a large block of mixed deciduous woodland.	12	1.7km to the west.
Round Copse	Consists of a small woodland and borders Mcilroy Park.	11	1.8km to the west.

Non-statutory Sites

- 3.3 The closest non-statutory designated site is LWS Fobney Island Nature Reserve, located 2.6km to the south of the site at its nearest point.

Table 2: Closest Non-Statutory Wildlife sites

Site Name	Reason for Designation	Area (ha)	Distance from the Site
Fobney Island Nature Reserve	Contains areas of rough grassland which provide shelter for a variety of wetland birds.	7	2.6km to the south.

Kennet island Wildlife Conservation Area	Wildlife refuge which supports a number of wetland birds.	1.6	2.9km to the south.
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Habitats

Site Summary

- 3.4 The site comprised of hardstanding, ruderal vegetation, scattered shrubs, a timber pile and trees.
- 3.5 The main habitats recorded within the site are described below. Additional details are shown on the habitat survey plan in Appendix A, and the target notes are listed in Appendix B.

Hardstanding

- 3.6 Near to the centre of the site is a small concrete building footprint, defined by bricks. (photograph 1).

Ruderal vegetation

- 3.7 Growing through the hardstanding across the majority of the site is ruderal vegetation (see photograph 2) which consist of species including broad-leaf dock (*Rumex obtusifolius*), spear thistle (*Cirsium vulgare*) and ragwort (*Jacobaea vulgaris*). There are also small numbers of common fennel (*Foeniculum vulgare*). Yarrow (*Achillea millefolium*) and rosebay willowherb (*Chamerion angustifolium*) can also be seen dotted across the site.
- 3.8 In the south east of the site areas of cleavers (*Galium aparine*) can be seen. In the same corner is a vegetation run emerging (see photograph 3 /Target Note 1) from the dead vegetation. Along the eastern site boundary there were several individual common hogweed (*Heracleum sphondylium*) plants (Photograph 4). Ivy covers the majority of the southern wall site boundary.
- 3.9 A small vegetation run was observed in the south west corner, but no footprints or animal fur, or faeces were seen on site.

Shrubs

- 3.10 A mixture of immature and mature buddleia (*Buddleja davidii*) is seen scattered across the site (photograph 5).

Timber pile

- 3.11 There is a pile of discarded timber located in the south east corner, dead vegetation is found intertwined through it (see photograph 6).

Trees

- 3.12 There is one mature sycamore (*Acer pseudoplatanus*) found in the south east corner of the site, which is covered in Ivy (*Hedera helix*). Another sycamore is offsite and has branches overhanging into the site. (see photograph 7). However, it is understood they will not be affected by the development plans.

Protected Species

- 3.13 Legislation relating to the protected species referred to in this section is included in Appendix C.
- 3.14 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 2km radius.

Reptiles

- 3.15 The data search showed records of common lizard (*Zootoca vivipara*) and slow worm (*Anguis fragilis*) within 2km of the site within the past 10 years.
- 3.16 During the survey the ruderal vegetation provided significant areas of cover and the hardstanding areas provided areas for basking. Despite the good habitats for reptiles, the connectivity of the site with other habitat is poor due to its location and the fact the site is bound by high fencing on all sides.
- 3.17 Overall, the site was assessed as having a **low** potential to support reptiles.

Amphibians

- 3.18 The data search showed records of smooth Newt (*Lissotriton vulgaris*) and palmate newt (*Lissotriton helveticus*) within 2km of the site within the past 10 years.
- 3.19 No ponds have been identified within 250 or 500 meters of the site.
- 3.20 During the survey no standing water was identified on site. Due to the sites enclosed nature access for foraging or commuting amphibians would be very limited.
- 3.21 It is considered that the site offers a **negligible** potential for breeding newts and a **low** potential for foraging and commuting newts.

Bats

- 3.22 The data search showed records of bats from the genera pipistrelle (*Pipistrellus*), brown long eared (*Plecotus auritus*), myotis species, serotine (*Eptesicus serotinus*), and noctule (*Nyctalus noctula*) occurring within the 2km search area in the past years.
- 3.23 During the survey no cracked bark or hollows were seen within the sycamore tree on site. The ivy growing on the tree wasn't established enough to offer a potential for roosting bats.

- 3.24 Overall, it is considered that the site offers a **low** potential for roosting bats and a **moderate** potential for foraging bats.

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 site. Species include bullfinch (*Pyrrhula pyrrhula*) and dunnoek (*Prunella modularis*).
- 3.26 During the survey it was noted that the onsite ruderal vegetation provided suitable habitat for nesting birds.
- 3.27 Overall, it is considered that the site offers a **moderate** potential for breeding birds.

Badgers

- 3.28 The data search showed records of badger within 2km of the site within the past 10 years.
- 3.29 During the Survey, no evidence of badger was seen and as the site is fenced and no holes were seen in the fencing it is considered that badgers would not easily be able to use the site.
- 3.30 Overall, the site offered a **low** potential for breeding badgers and a **low** potential for foraging and commuting badgers.

Hazel Dormice

- 3.31 The data search showed no records of dormice within 2km of the site within the past 10 years.
- 3.32 There is no habitat on site usually associated with this species group, and the connectivity of the site with other habitats is very limited.
- 3.33 Overall, it was considered that the site offered a **negligible** potential to support breeding dormice.

Stag Beetles

- 3.34 The data search showed records of stag beetle (*Lucanus cervus*) within 2km of the site within the past years.
- 3.35 There was no evidence of stag beetle, or the habitat they require seen during the survey.

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.

3.36 Overall, the site offered a **negligible** potential for stag beetle.

Invasive Plants

- 3.37 The data search showed records of Japanese knotweed (*Reynoutria japonica*), and Himalayan balsam (*Impatiens glandulifera*) occurring within the 2km search area in the past years. These plants are listed as invasive in Schedule 9 of the Wildlife and Countryside Act (1981 amended). These species were not found on the site.
- 3.38 During the survey specimens of buddleia were seen (See Target Note and Photo in appendices A & B). Although not found in Schedule 9 of the Wildlife and Countryside Act (1981 amended), it is found on the London Invasive Species Initiative (LISI).

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. 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 (SAC's) and Special Protection Areas (SPA's).
- 4.5 The site is not subject to any international statutory nature conservation designations. The closest site of International Importance is Hartslock Wood SAC located 8.9 km to the north west of the site. The site does not provide any supporting habitat for this designated site.

Features of National Importance

- 4.6 Features of national importance include 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 level³.
- 4.7 The closest site of national importance for nature conservation is Lousehill Copse LNR located 1.6 km to the west of the site. The site does not provide any supporting habitat for this statutory designated site.

Features of Regional (i.e. Berkshire) Importance

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

Features of District (i.e. Reading) Importance

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

Features of Local (i.e. Reading Centre) Importance

- 4.10 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

- 4.11 The on-site vegetation is of value within the immediate vicinity and provides suitable habitat to support protected species including breeding birds, and possibly reptiles and badgers, although the site is isolated and is in an urban setting. It also forms part of the wider ecological network of habitats in the locality, providing wildlife corridors for mobile species to move through the landscape.

Summary

- 4.12 Overall on the basis of the survey results and the above criteria, habitats within the site are considered largely to be of ecological value within the immediate vicinity only. The site provides suitable habitat to support several protected species and groups including breeding birds, and possibly reptiles and badgers, although the site is isolated and is in an urban setting. However, populations of these are unlikely to be locally significant.

³ JNCC Guidelines for selection of biological SSSIs (see <http://jncc.defra.gov.uk/page-2303#download>).

Local Plan Evaluation

- 4.13 It is considered that the statutory Local Plan (Adopted 2019) contains the following nature conservation policies relevant to the site. A summary of these 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.

Reading Borough Local Plan (adopted 2019)

- *EN12: Biodiversity and the Green Network - The identified Green Network, the key elements of which are shown on the Proposals Map, shall be maintained, protected, consolidated, extended and enhanced. Permission will not be granted for development that negatively affects the sites with identified interest or fragments the overall network.*

5. Discussion and Recommendations

Discussion

- 5.1 The survey site is located at Oxford Road, Reading. The survey area extended over approximately 0.1 hectares (ha). Habitats to be impacted by the development proposals include hardstanding, ruderal vegetation, scattered shrubs, a timber pile and trees.
- 5.2 It is understood current proposals are for the construction of two commercial units and apartments. Habitats within the proposed development area were assessed as being of value to wildlife with the local vicinity with potential to support and these species may pose a constraint to works.
- 5.3 No further surveys are recommended.
- 5.4 In addition, a precautionary approach to site clearance in respect to breeding birds, badgers and reptiles is recommended to minimise any adverse impacts on this species group.
- 5.5 Details regarding specific mitigation, including further surveys and precautionary working practices together with habitat enhancement measures are provided below.
- 5.6 It is recommended the buddleia is controlled and managed.

Recommendations

Breeding Birds

- 5.7 The on-site sycamore trees and ruderal vegetation provide the opportunity for nesting birds.
- 5.8 In order to avoid any potential impact on breeding birds, the clearance of any trees or scrub should be undertaken outside the main bird nesting season which runs from March to August inclusive⁴, with clearance works possible between September and February. Where this is not possible, an ecologist would need to check the vegetation for active nests and signs of bird breeding activity.
- 5.9 In the event that a nest is found, an exclusion zone around the nest would be established. Works would have to cease within this buffer area until the young birds have fledged.

⁴ It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

Badgers

- 5.10 Badgers receive protection under The Protection of Badgers Act 1992.
- 5.11 Due to the potential presence of badgers in the area, a series of general precautions are recommended. This will include the following;
- 5.12 Throughout construction, all on-site contractors must be made aware of the potential presence of badgers in the locality and a tool box talk should be given by a qualified ecologist immediately prior to the start of construction works to discuss the potential for badgers to pass through the site and to provide information on legislation and the ecology of this species.
- 5.13 All trenches should be covered at night or if this is not possible, ramps must be installed into the trenches to enable badgers to escape should they enter the excavations. All materials must be stored safely and lids securely fitted, particular waste and other potential food sources.

Reptiles

- 5.14 All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended).
- 5.15 The proposed development is considered to have a relatively low impact on any potential reptile populations that may be present. It is therefore felt that a precautionary approach to vegetation clearance should be sufficient to safeguard this protected species group. This would involve vegetation clearance to be carried out in stages in order to avoid any potential impacts on reptiles.

Habitat Retention

- 5.16 All retained trees, including all 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

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

Bird and Bat Boxes and Bricks

- 5.18 Additional bird nesting and bat roosting provision could be incorporated into new design proposals. These could either be installed on trees or incorporated into the new building design. Some recommendations are made below as a guide.

- 5.19 Bat roosting opportunities could be provided through the installation of boxes on the outside of the walls or remaining trees, 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.
- 5.20 Bird boxes could be installed on the walls of the new building or in the remaining trees 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 buildings, then a Schwegler sparrow terrace 1SP could also be used.
- 5.21 Further details of the bird and bat boxes are provided in Appendix F.
- 5.22 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.
- 5.23 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.

Compensatory Planting

- 5.24 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.

Invasive Species

- 5.25 It is recommended a management plan is put in place to manage and control the buddleia at the site.

6. Conclusions

- 6.1 The site survey revealed the following habitats: hardstanding, ruderal vegetation, scattered shrubs, a timber pile and trees.
- 6.2 The site is not subject to any statutory or non-statutory designations. The closest statutory site is Lousehill Copse LNR located approximately 1.6km to the west 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 surveys are recommended.
- 6.4 A precautionary approach to vegetation clearance in respect to breeding birds, reptiles and badgers is recommended to minimise any adverse impacts on this species group.
- 6.5 It is recommended that the site is enhanced by introducing some compensatory planting and installing bat and bird boxes.
- 6.6 It is recommended the buddleia is controlled and managed.

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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
PEA	Preliminary Ecological Appraisal- formerly referred to as a Phase 1 Habitat Survey
SAC	Special Area of Conservation
SNCI	Site of Nature Conservation Interest
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

Figures and Appendices

Appendix A

Habitat Map



Legend



Site Boundary



Ruderal Vegetation

Areas



Timber Pile

Areas : Habitat

SI



Hardstanding

Areas

Text



Tree (Approximate Location)

Points



Scattered Shrubs

Points



Target Note

Points



Oxford Road, Reading

Drawn by: AR
On the: 22/09/2020
Not to Scale
Ref: 9879



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Appendix B

Photographs and Target Notes

Photographs and Target Notes

Photo No.	Feature (Target Note No.)	Photograph of Feature
1	The concrete footprint sits in the centre of the site.	
2	Ruderal vegetation covered the majority of the site.	

3

Target Note 1: Vegetation run which can be presumed to be disused, as no signs of any animals were found.



4

Hogweed was found around the perimeter of the site.



5

A number of immature and mature buddleia plants were seen on site.



6

A pile of discarded wood is found on the south western side of the site.



7

Two trees can be seen on the site, the left hand one in the south east of the site is to be removed. The right hand one in the south west corner is offsite and will not be affected by the development.



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 Directive⁵ 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;

⁵ 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 sett⁶ or any part thereof;
-  intentionally or recklessly disturb⁷ 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.

⁶ 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

⁷ 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;
- $\geq 50\%$ of UK breeding population in 10 or fewer sites;
- $\geq 50\%$ of UK non-breeding population in 10 or fewer sites;
- $\geq 20\%$ of European breeding population in UK; and
- $\geq 20\%$ 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 SPA's are afforded protection by The Conservation (Natural Habitats, &c. Regulations 1994 (as amended) and offshore SPA's 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 SPA's.
-  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), 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 (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) (2019) replaces the former NPPF 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

Reading Borough Local Plan adopted 2019

-  *EN12: Biodiversity and the Green Network - The identified Green Network, the key elements of which are shown on the Proposals Map, shall be maintained, protected, consolidated, extended and enhanced. Permission will not be granted for development that negatively affects the sites with identified interest or fragments the overall network. The Green Network comprises:*
-  *Sites with identified biodiversity interest - Local Wildlife Sites, Local Nature Reserves, Biodiversity Opportunity Areas, protected and priority species and their habitats, Priority and Biodiversity Action Plan habitats, and the River Thames and all its tributaries (including the River Kennet and the Kennet & Avon Canal); and Areas with potential for biodiversity value and which stitch the Green Network together – designated Local Green Space and open green spaces, and existing and potential Green Links.*
-  *New development shall demonstrate how the location and type of green space, landscaping and water features provided within a scheme have been arranged such that they maintain or link into the existing Green Network and contribute to its consolidation. Such features should be designed to maximise the opportunities for enhancing this network. All new development should maximise opportunities to create new assets and links into areas where opportunities are as yet unidentified on the Proposals Map.*

On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible. Development should: Protect and wherever possible enhance features of biodiversity interest on and adjacent to the application site, incorporating and integrating them into development proposals wherever practicable; and Provide new tree planting, wildlife friendly landscaping and ecological enhancements (such as wildlife ponds, bird and bat boxes) wherever practicable. In exceptional circumstances where the need for development clearly outweighs the need to protect the value of the site, and it is demonstrated that the impacts cannot be: 1) avoided; 2) mitigated or; 3) compensated for on-site; then new development will provide off-site compensation to ensure that there is “no net loss” of biodiversity. Provision of off-site compensation shall be calculated in accordance with nationally or locally recognised guidance and metrics. It should not replace existing alternative habitats, and should be provided prior to development.

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	L	T
<i>Achillea millefolium</i>	Yarrow	R	N/A
<i>Buddleja davidii</i>	Buddleia	F	N/A
<i>Chamerion angustifolium</i>	Rosebay willowherb	R	N/A
<i>Cirsium vulgare</i>	Spear thistle	R	N/A
<i>Erigeron canadensis</i>	Horse weed	L	N/A
<i>Foeniculum vulgare</i>	Common fennel	L	N/A
<i>Galium sp.</i>	Cleavers	O	N/A
<i>Heracleum sphondylium</i>	Hogweed	O	N/A
<i>Jacobaea vulgaris</i>	Ragwort	R	N/A
<i>Rumex obtusifolius</i>	Broadleaf dock	F	N/A

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*) and (*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*) E 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. N.B. *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
 A photograph of a red, cylindrical bird box with a white entrance hole. A small bird is perched on the entrance hole.	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.
 A photograph of a yellow, arched bird house with a dark entrance hole. The house is shown from two angles: one showing the front and one showing the side.	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 your 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.	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. 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.

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	Without panel: Particularly successful with brown long-eared bat. Also used by noctule. With panel: Ideal for crevice-dwelling species: pipistrelles, Myotis species (particularly Daubenton's), Leisler's and serotine.	On trees or buildings and at a height of 3 to 6m. In open sunny positions and in groups of 3 to 5 facing different directions. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.
	Chavenage Bat Box	10 x 18 x 38	Small crevice-dwelling bats e.g. pipistrelles.	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. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.



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