

# Ecological Impact Assessment



Manor Farm, Slough  
5<sup>th</sup> December 2024



Tyler  
Grange

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Admin QA	Author	Checked	Approved
CC	Georgia Willmott MSc	Christian Cairns MSc BSc (Hons)	George Siskos BSc (Hons) ACIEEM

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## Summary

- S.1. This report has been prepared by Tyler Grange Group Limited on behalf of [redacted]. It sets out the findings of an Ecological Impact Assessment at Manor Farm, Slough, SL3 0BL, hereinafter referred to as 'the Site'. The proposals are for the demolition of the current buildings located as well as removal of habitats including grassland and hedgerow on Site and the erection of a data centre, office, substation and battery yard.
- S.2. An 'extended' Phase 1/UK Habitat Classification (UK Habs) survey and Preliminary Bat Roost Assessment was undertaken on the 10<sup>th</sup> October 2023 and again on the 8<sup>th</sup> August 2024. A summary of the results are as follows:
- The Site is comprised of developed land; sealed surface, buildings,, artificial unvegetated; unsealed surface and modified grassland (considered to be of negligible ecological importance), bramble and mixed shrub and mature trees (considered to be of local ecological importance). Additionally, two hedgerows located on Site are classified as a Habitat of Particular Importance (HoPI), as such these habitats should not be impacted by the Development with suitable mitigation measures of any impacts via construction to be incorporated into a CEMP.
  - The Site contains habitats that could support common and widespread nesting and foraging birds and bats.
- S.3. In terms of protected Sites, a Natura 2000 Site of international importance, namely South West London Waterbodies SPA and Ramsar, may be subject to significant impacts from proposed Development. As such a Habitat Regulation Assessment (HRA) **16194/R04** is required and has also been completed as part of this application and should be read in conjunction to this report.
- S.4. The Site is also located within a Site of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ) of Wraysbury Reservoir, which will require consultation with Natural England through their Discretionary Advice Service (DAS) to discuss impacts during the determination process. To further mitigate any impacts on this Site as well as several other non-statutory Sites from construction activities, mitigation measures will be implemented and secured through an appropriately worded Construction Environmental Management Plan (CEMP).
- S.5. Habitats of negligible ecological importance to be lost to the Development, such as developed land, require no specific mitigation. Habitats of low ecological importance to be lost, such as urban mature trees, native hedgerows will be more than compensated for through replacement planting in the form of native species tree, hedgerow, and shrub planting.
- S.6. Species-specific enhancements recommended within this report, which include native planting, and provision of bat and bird boxes, would enhance the Site for wildlife and increase the habitat diversity on Site providing a range of nesting, foraging and commuting opportunities for species such as invertebrates, bats and birds.
- S.7. The biodiversity net gain assessment found that the proposals would result in a gain of 11.76 (115.53%) in habitat units and 0.23 (10.07%) in hedgerow units. The site also meets trading rules due to the planting of at least 15 medium sized trees and 61 small trees to mitigate the loss of eleven



trees for development. Two hedgerows of principal importance (H2 and H3) will be retained in the design scheme, however will be translocated to another area of the site. Within the BNG metric, these hedgerows have been marked as a loss and included within the habitat creation section as they will be temporarily removed from site before being re-planted. Two additional native hedgerows have been included in the design scheme to mitigate this loss. This would comply with the National Planning Policy Framework (NPPF). This would also comply with the upcoming Town and Country Planning Act 2023 which is expected to mandate a 10% net gain in biodiversity units.

- S.8. It is therefore concluded that the proposed Development complies with relevant policy including, core policies 8 and 9 from the Slough Local Core Strategy, and legislation relating to biodiversity.



# Section 1: Introduction and Context

## Introduction

- 1.1. This report has been prepared by Tyler Grange Group Ltd on behalf of [redacted]. It sets out the findings of an Ecological Impact Assessment (EclA) at Manor Farm, Poyle Road, Slough, SL3 0BL (OS Grid Reference TQ 0304176159), hereafter referred to as 'the Site'. See **Figure 1.1** for the indicative red line boundary.



Figure 1.1: Indicative red line boundary (© Google Aerial Imagery)

- 1.2. This assessment has been undertaken to inform a full planning application for the demolition of the current buildings located on Site and the erection of a data centre, office, substation and battery yard. The Site proposals are shown in **Appendix 1**.

## Site Context

- 1.3. The Site is approximately 8.19 ha in size and comprises of developed land; sealed surface, buildings, bramble scrub, artificial unvegetated; unsealed surface, native hedgerows, modified grassland, mixed scrub, arable fields and mature trees. Additionally, the hedgerows located on Site are classified as a Habitat of Principle Importance (HoPI). The wider landscape consists of an industrial area and the M25 to the west and further arable fields to the east.

## Purpose

- 1.4. This report:
- Uses available background data and results of the field surveys to describe and evaluate the ecological features present within the likely “Zone of Influence”<sup>1 2</sup> (Zoi) of the proposed Development;
  - Describes the actual or potential ecological issues and opportunities that might arise as a result of the Site’s Development.
  - Where appropriate, makes commitments for mitigation measures for adverse effects on ecological features as well as ecological enhancements, to ensure conformity with policy and legislation listed in **Appendix 2**; and
  - Can be used to inform a planning application for the Site’s Development.
- 1.5. This assessment and the terminology used are consistent with published guidance<sup>3 4</sup>. A full methodology is set out in **Appendix 3**.

## Methodology

- 1.6. The habitat survey comprised an extended Phase 1<sup>5</sup> and UK Hab<sup>6</sup> survey.
- 1.7. The data search was based on records purchased from several local records centres including Thames Valley Environmental Records Centre (TVERC)<sup>7</sup>, Greenspace Information for Greater London (GiGL)<sup>8</sup> and Surrey Biodiversity Information Centre (SBIC)<sup>9</sup>, as well as data from the Multi-Agency Geographic Information for the Countryside (MAGIC)<sup>10</sup>
- 1.8. The methodologies for protected species surveys are set out in **Appendix 3**.

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<sup>1</sup> CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

<sup>2</sup> Defined as the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project Site, for example where there are ecological or hydrological links beyond the Site boundaries.

<sup>3</sup> CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

<sup>4</sup> CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

<sup>5</sup> JNCC. (2010) *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*. Joint Nature Conservation Committee, Peterborough.

<sup>6</sup> UKHab Ltd (2023) *UK Habitat Classification Version 2.0* (at <https://www.ukhab.org>).

<sup>7</sup> <https://www.tverc.org/cms/> [Accessed 05/10/2023].

<sup>8</sup> <https://www.gigl.org.uk/> [Accessed 05/10/2023].

<sup>9</sup> <https://www.surreywildlifetrust.org/what-we-do/professional-services/records-centre> [Accessed 05/10/2023].

<sup>10</sup> <https://magic.defra.gov.uk/magicmap.aspx> [Accessed 09/10/2023].



## Quality Control

- 1.9. All ecologists at Tyler Grange Group Limited are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) or are working towards membership, and act under the direction of members and abide by the Institute's Code of Professional Conduct<sup>11</sup>.

## Limitations and Assumptions

- 1.10. During the breeding bird and bat activity, access to the industrial estate in the northern parcel was not possible, limiting the ability to gather data on species activity within that area. However, it is considered that this limitation does not impact the recommendations outlined in this report. Key observations during breeding bird surveys from the adjacent habitats, providing visibility into parts of the industrial estate. A static was also placed within the estate that effectively captured bat activity in the area. Additionally, the habitats located within this area consist mostly of hardstanding with heavy industrial use and as such these habitats are deemed unlikely to support significant assemblages for bats and birds. Notwithstanding this, the sites value for supporting bats and breeding birds will not be negatively impacted, and therefore, the assessment results remain unchanged.

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<sup>11</sup> CIEEM (2022) *Code of Professional Conduct*. CIEEM, Winchester.



## Section 2: Ecological Features and Evaluation

### Designated Sites

- 2.1. The data search returned two National Site Network Sites within 10 km of the Site, and 12 statutory and non-statutory designated Sites within 2 km of the Site. These are detailed in **Table 2.1** below.



**Table 2.1:** Designated Sites

Designated Site	Distance and direction from Site	Citation	Ecological Importance
South West London Waterbodies Ramsar	0.1 km south	Comprises of a number of reservoirs which support international important numbers of gadwall <i>Anas strepera</i> and shoveler <i>Anas clypeata</i> .	International
South West London Waterbodies Special Protection Area Special Protection Area (SPA)	0.1 km south	Comprises of a number of reservoirs which support international important numbers of gadwall and shoveler.	International
Windsor Forest and Great Park, Special Area of Conservation (SAC)	5 km south west	Designated for its old acidophilous oak woodlands. In addition, populations of violet click beetle <i>Limoniscus violaceus</i> have been located here.	International
Wraysbury Reservoir, Site of Special Scientific Interest (SSSI)	0.1 km south	Open water, reedbed, fen, rough grassland, wet woodland and scrub habitats and associated fauna.	National
Staines Moor SSSI	0.4 km south east	The stretch of the Rive Colne and three adjacent reservoirs supports a large area of rich flora and populations of wintering waterfowl.	National
Arthur Jacob Nature Reserve, Local Nature Reserve (LNR)	0.4 km west	Designated for its important wetland supporting populations of dragonflies and butterflies	County
Wraysbury Reservoir, Site of Nature Conservation Importance (SNCIs)	0.1 km south	The grassland surrounding the Wraysbury Reservoir SSSI which supports two species on the conservation concern list for Surrey shoveler and gadwell	Local
Colne Brook, Local Wildlife Site (LWS)	0.6 km west	Designated for its important wildlife corridor comprising of a range of aquatic, and a riparian habitats supporting species-rich aquatic communities.	Local
Greenham's Fishing Pond, Site of Importance for Nature Conservation (SINC)	0.6 km east	Its wetland habitat supports populations of water beetles <i>Anacaena bipustulata</i> and <i>Helochares lividus</i> .	Local
East of Poyle Meadows SINC	0.6 km south west	Designated for its diversity of habitats including pond, swamp, grassland and scrub. Important buffer between the M25 and Saines Moor SSSI	Local
Horton and Kingsmead Lakes LWS	1.1 km south	Designated for its large complex of gravel pits and reservoirs. Supports populations of wetland species including over-wintering wildfowl.	Local
West of Poyle Meadows SINC	1.1 km south	River channel and flood meadow which supports a diverse macro-invertebrate fauna including, the riffle beetle <i>Oulimnius major</i> .	Local
River Colne and Standwell Moor SINC	1.1 km east	Designated for its fast flowing river supporting populations of breeding birds.	Local
Old Slade Lake LWS	1.3 km north east	Consists of a range of habitats including; flooded gravel pits, secondary woodland, ruderal grassland, tree planting and a stretch of Colne Brook	Local
Queen Mother Reservoir LWS	1.5 km north west	Designated for its large waterbody which supports a variety of passage waders and winter wildfowl including common scoter <i>Melanitta nigra</i> , bittern <i>Botaurus stellaris</i> , turtle dove <i>Streptopelia turtur</i> and black-tailed godwit <i>Limosa limosa</i> .	Local
Lower Colne SINC	2.4 km north east	Designated for its chalk stream which supports a diverse aquatic and marginal flora. The breeding birds includes kingfisher <i>Alcedo atthis</i> and grey wagtail <i>Motacilla cinerea</i> .	Local

- 2.2. The Site falls into the SSSI Impact Risk Zone for Wraysbury Reservoir SSSI. The Development does fall into the criteria set out by Natural England requiring further assessment as shown below:

*All planning applications (except householder applications) where the proposed "Development is outside or extends outside existing settlements/urban areas and will increase lighting levels or affect greenspace, farmland, semi natural habitats, trees/woodland, waterbodies, rural buildings/structures (manmade or natural) or linear landscape features such as hedgerows, streams and rivers through direct loss, fragmentation or change of use"<sup>12</sup>*

- 2.3. In order to minimise impacts to the local habitats mentioned by Natural England, a Construction Environmental Management Plan (CEMP) will be issued, as well as a lighting strategy for the site. This is discussed further in **Section 3**.

## Habitats and Flora

- 2.4. The habitats present on Site are summarised below in **Table 2.2**, along with a description of the composition of the main plant species present and an assessment of their ecological importance. The location of habitats are shown on the **Habitats Features and Preliminary Bat Roost Assessment Plan 16194/P04**.

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<sup>12</sup> Natural England, Impact Risk Zones for Sites of Special Scientific Interest



Table 2.2. Habitats and Flora

Habitat	Description and Species	Ecological Importance	Photograph
<p><u>Statutory BNG code:</u> Urban, Developed land; sealed surface</p> <p><u>UK Habs Primary code:</u> Building u1b5</p>	<p>In total 17 buildings were located around the Site with a mixture of industrial, residential and farm use.</p>	<p>The habitat is of no intrinsic value to biodiversity and is therefore considered to be <b>negligible ecological importance</b>.</p>	
<p><u>Statutory BNG code:</u> Urban, Developed land; sealed surface</p> <p><u>UK Habs Primary code:</u> Developed land; sealed surface u1b</p>	<p>Developed land, sealed surface in the form of roads and car parks located throughout the Site. This habitat is mostly confined to the northern parcel of the Site</p>	<p>This habitat is of no intrinsic value to biodiversity and is therefore considered to be of <b>negligible ecological importance</b>.</p>	
<p><u>Statutory BNG code:</u> Urban, Artificial unvegetated; unsealed surface</p> <p><u>UK Habs Primary code:</u> Artificial unvegetated; unsealed surface u1c</p>	<p>Area is found in the form of access tracks used by vehicles and agricultural machinery. Area has become bare as a result of vehicles passing through creating artificial roads as well as areas of ephemeral vegetation. Species present include perennial ryegrass <i>Lolium perenne</i> and bristly oxtongue <i>Helminthotheca echioide</i>.</p>	<p>This habitat is of no intrinsic value to biodiversity and is therefore considered to be of <b>negligible ecological importance</b>.</p>	
<p><u>Statutory BNG code:</u> Grassland, Modified Grassland</p> <p><u>UK Habs Primary code:</u> Modified managed grassland g4</p>	<p>Area of modified grassland present on the western and eastern areas of the Site. Both grasslands are heavily managed by being mowed. Additionally the eastern area of grassland is used as an overflow car parking which has damaged the grassland sward. The grassland is almost entirely composed of perennial rye grass with some dandelion <i>Taraxacum officinale</i>.</p> <p>An area of modified grassland is also located within the southern parcel which is actively agriculturally managed.</p>	<p>Given the active management of this habitat, various uses which damage the sward and species composition, it is considered to offer little to biodiversity and is therefore considered to be of <b>negligible ecological importance</b>.</p>	

<p><u>Statutory BNG code:</u> Grassland, other neutral grassland</p> <p><u>UK Habs Primary code:</u> Other neutral grassland g3c</p>	<p>Area of neutral grassland is located within the access track area. The grassland is tussocky in places and comprises of cock's-foot <i>Dactylis glomerata</i>, common thistle <i>Cirsium vulgare</i>, bristly oxtongue, common teasel <i>Dipsacus fullonum</i> and common daisy <i>Bellis perennis</i>. Some bramble <i>Rubus fruticosus</i> is also present in patches.</p>	<p>Although this habitat is common in the wider landscape, these hedgerows do provide biodiversity value to the Site, and as such are considered to be of <b>local ecological importance</b>.</p>	
<p><u>Statutory BNG code:</u> Heathland shrub, bramble scrub</p> <p><u>UK Habs Primary code:</u> Bramble scrub h3d</p>	<p>Linear strips of bramble scrub was found in several locations of the Site. Species found also include broadleaved dock <i>Rumex obtusifolius</i>, teasel and rosebay willow herb <i>Chamaenerion angustifolium</i>.</p>	<p>Given the species composition, it is considered to offer little to biodiversity, however this habitat does provide some biodiversity value to the site, and as such is considered to be of <b>local ecological importance</b>.</p>	
<p><u>Statutory BNG code:</u> Hedgerow, native hedgerow</p> <p><u>UK Habs Primary code:</u> Hedgerow (Habitat of Principal Importance HoPI) h2a</p>	<p>Hedgerow is located adjacent to the areas of hardstanding habitat as shown in <b>16194/P04</b> as H3 and H4 as well as further south within the access track area connecting the two parcels together labelled as H6. Species include hawthorn <i>Crataegus</i>, with an understory of broad-leaved dock and bramble with a height of 5 m and 110 m and 60 m long respectively.</p>	<p>Although this habitat is common in the wider landscape, these hedgerows do provide biodiversity value to the Site, and as such are considered to be of <b>local ecological importance</b>.</p>	

<p><u>Statutory BNG code:</u> Hedgerow, non-native and ornamental hedgerow</p> <p><u>UK Habs Primary code:</u> Non-priority Hedgerow h2b</p>	<p>A non-native hedgerow is also located along the entrance road to the industrial parcel (H1) consisting of entirely of hornbeam <i>Carpinus betulus</i>, with an understory of bramble and cow parsley <i>Anthriscus sylvestris</i> with a height of 5 m and 190 m long.</p>	<p>Although this habitat is common in the wider landscape, these hedgerows do provide biodiversity value to the Site, and as such are considered to be of <b>local ecological importance</b>.</p>	
<p><u>Statutory BNG code:</u> Heathland and shrub, mixed scrub</p> <p><u>UK Habs Primary code:</u> Mixed scrub h3h</p>	<p>Area of mixed scrub in the northern section of the Site. tall ruderal/ephemeral vegetation dominated by Yorkshire fog <i>Holcus lanatus</i>, buddleia <i>Buddleia davidii</i>, broadleaved dock, teasel, purple toadflax <i>Linaria purpurea</i>, burdock <i>Arctium spp.</i>, bristly oxtongue and bramble.</p>	<p>Although this habitat is common in the wider landscape, these hedgerows do provide biodiversity value to the Site, and as such are considered to be of <b>local ecological importance</b>.</p>	

<p><u>Statutory BNG code:</u> Individual trees, urban trees</p> <p><u>UK Habs Primary code:</u> <b>Individual trees</b></p> <p><u>UK Habs Secondary code:</u> Scattered trees 32</p>	<p>Several individual trees are located throughout the Site. Their indicative locations can be found in <b>16194/P04</b> and in the Tree Retention and Removal Plan <b>16194/P03d</b>. Species include but not limited to; hybrid black poplar <i>Populus x canadensis</i>, damson <i>Prunus domestica</i> and Norway maple <i>Acer platanoides</i>.</p>	<p>Although this habitat is common in the wider landscape, these hedgerows do provide biodiversity value to the Site, and as such are considered to be of <b>local ecological importance</b>.</p>	
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## Protected and Notable Species

- 2.5. The below section sets out the potential for protected species on Site. Species which are considered likely absent from the Site based on professional judgement, following consideration of habitats within the Site, signs of species presence at the time of survey and data search records, are not discussed.

### Amphibians

- 2.6. The data search returned no records of great crested newt *Triturus cristatus* within 2 km of the Site. The nearest of these was a record of common frog 0.7 km northeast of the Site in 2022. No European Protected Species (EPS) licences were returned for GCN within 2 km of the Site.
- 2.7. The desk study, as amended, identified no waterbodies on or within 250 m of the Site, which is generally considered to be within the typical migratory range of GCN from a waterbody<sup>13</sup>. The terrestrial habitats on Site could offer some suitable habitat for GCN, however given the lack of aquatic habitat within the Site and surrounding area, as well as the presence of dispersal barriers such as roads and the Colne River abutting the western boundary, the Site is considered unlikely to support GCN.
- 2.8. As such GCN considered **likely absent from the Site and are not discussed further within the report**.
- 2.9. Other more mobile amphibian species such as common toad may be present. Common toads are a priority species under The Natural Environment and Rural Communities (NERC) Act 2006<sup>14</sup>. It is considered any population utilising terrestrial habitats on Site, such as the vegetated gardens and introduced shrub, will also be using further habitats beyond the Site boundary and not reliant Site alone.
- 2.10. As such, any populations of amphibians such as common toad on Site would be of **negligible ecological importance**.

### Badgers

- 2.11. No records of badger *Meles meles* were returned by the data search from within 2 km of the site boundary
- 2.12. During the previous 'Extended' Phase I and updated surveys, no signs of badger or their setts were identified on or adjacent to site. The scrub and modified grassland habitats do provide opportunities for badgers to forage but is limited with more opportunities found in the wider landscape. As such, badger surveys were scoped out of the assessment are not discussed further in this report.

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<sup>13</sup> Cresswell, W. & Whitworth, R., 2004. *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus: English Nature Research Report 576*. Peterborough: English Nature.

<sup>14</sup> Section 40 of the NERC Act puts a duty on local authorities to have regard for the conservation of species and habitats listed at Section 41, including when considering planning applications.



## Bats

- 2.13. The data search returned records for four bat species within 2 km of the Site. Species included common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Nathusius's pipistrelle *Pipistrellus nathusii* and Daubenton's bat *Myotis daubentonii*. The nearest of these was a record of common pipistrelle 0.4 km northeast of the Site in 2019. In addition, one granted EPS licences for bats were returned within a 2 km radius of the Site. The closest licence was located 2.9 km northeast of the Site (case reference: 2014-5172-EPS-MIT) and was granted for the destruction of a resting place of brown long-eared *Plecotus auritus* and common pipistrelle bats.

### Day-time Bat Walkover (DBW)

- 2.14. A DBW was undertaken alongside the 'extended' Phase 1/UK Habs survey in order to establish the potential for the Site to be used by bats. The northern parcel of the Site is currently an industrial Site and lies within an urban context, with light pollution within and adjacent to Site. It is assumed that light tolerant species, such as common and soprano pipistrelle, could forage within and adjacent to this part of the Site. Additionally, although this section of the Site is not highly suitable for bat species, linear features such as hedgerows and lines of trees would support commuting and foraging bats. The parcel to the south of the Site is an arable field with hedgerows and treelines running along the boundaries connecting to the wider landscape, which can provide further significant commuting and foraging opportunities.
- 2.15. As such, the habitats within the Site are considered to be of **low suitability** for commuting and foraging bats, and therefore, in line with good practice guidelines<sup>15</sup>, walked transects and the deployment of four static detectors were conducted seasonally between May-October 2024.

### Preliminary Bat Roost Assessment (PBRA) and Ground Level Tree Assessment

- 2.16. A PBRA and GLTA was carried out on the buildings and trees on and directly adjacent to Site, which may be impacted by the Development, in order to assess their potential to support roosting bats. See **Appendix 2** for full methodology, **Table 2.3** below for results, and the **Habitat Features and Preliminary Bat Roost Assessment Plan 16194/P04** for locations.

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<sup>15</sup> Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists. Good Practice Guidelines (4<sup>th</sup> Edition)*. The Bat Conservation Trust, London, ISBN-978-1-7395126-0-6



Table 2.3. PBRA Results

Structure/tree and Suitability	Potential Roost Feature (PRF)	Photograph
<p>Building B1 – Electrical outhouse Low suitability</p>	<p>PRF1 – A gap in the soffit box facing both north and can also be found on the opposite side of the building and facing south.</p>	
<p>Building B2 – Residential bungalow Low suitability</p>	<p>PRF2 – Opening in the concrete gable end facing northward.</p>	
<p>Building B11 – Industrial building currently used for metalworks Negligible suitability</p>	<p>PRF3 – A gap in the corner of the soffit box facing west.  This PRF was assessed as negligible as bat species would not be able to effectively climb into this section which is their normal behaviour when entering PRFs. Additionally, as this building is actively being used by a metalworks business, the noise disturbance would be too high for bats to actively roost here.</p>	

PRF4 – A gap located under the soffit on the west side of the building.

This feature was identified during the initial PBRA conducted in October 2023, however this feature was no longer present when the survey was repeated in August 2024.



PRF5 – A gap located under the soffit on the east side of the building

This feature was identified during the initial PBRA conducted in October 2023, however this feature was no longer present when the survey was repeated in August 2024.



## Dusk Emergence Survey

- 2.17. Building B1 and B2 was assessed as having low suitability to support roosting bats. As this building will be demolished for the proposals, further surveys were required to establish if a bat roost was present. As per good practice guidelines, one emergence survey was undertaken to determine presence or likely absence of bats utilising the PRFs.
- 2.18. Indicative locations of the PRFs and the surveyors are shown in the **Bat Emergence Survey Plan 16194/P08**. Full methodology and results are shown in **Appendix 3**.
- 2.19. The survey was conducted on the 25<sup>th</sup> July 2024 which recorded no emergences from any of the PRFs located on B1 and B2. No bats were recorded during the survey. As such, bat roosts are **considered likely absent from Site**.

## Bat Activity

### *Bat Transect Surveys*

- 2.20. The walked transects observed the highest concentration of bat activity in the southern parcel as well as the tree line of Black Poplars abutting the northern boundary on the industrial parcel. Species identified during these transects include; common pipistrelle, soprano pipistrelle and noctules, alongside with a *Myotis* species call which was identified to genus level only. Activity observed included mostly foraging along the tree lines and commuting to the wider area.
- 2.21. Transect surveys and static monitoring surveys are conducted to establish key commuting and foraging areas, the results of which can be found in **Appendix 3**. The results from the manned transect surveys can be found in **Bat Activity Survey Plan 16194/P06**.
- 2.22. Overall, the bat assemblage observed during the walked transects comprises of common and widespread species known to be present in the local area. The level of activity observed in these transects is considered to be low.

### *Bat Static Detector Surveys*

- 2.23. The four static detectors were strategically placed at locations to cover all habitat types located onsite, likely to be used by foraging and commuting bats. Indicative locations of these statics can be found in the **Bat Static Detector Survey Plan (16194/P07)**.
- 2.24. A total of six species were recorded including; common pipistrelle, soprano pipistrelle, Nathusius pipistrelle, noctule, serotine and *Myotis* species which was also only identified to genus level. The levels of activity observed show that the Site, and adjacent habitats, is used by local bat assemblages for both foraging and commuting activity. A higher volume of calls were recorded in the southern parcel, which is to be expected due to less lighting and as such maintaining it as a dark corridor.

## Assessment of Importance

- 2.25. The bat assemblage was assessed using the assessment methodology in best practice guidance, see **Table 2.4** for scoring system. The score is determined based on the species



recorded during surveys compared to those none to be present in the region and their relative abundance. This is then compared to the maximum score possible in a region to determine the importance of the bat assemblage.

**Table 2.4:** Assessment of Importance for a Bat Assemblage for Southern England – adapted from Reason and Wray, 2023

Rarity category [points/species]	Southern Eastern England	
Widespread all geographies [score 1]	Common pipistrelle <i>Pipistrellus pipistrellus</i> Soprano pipistrelle <i>Pipistrellus pygmaeus</i> Brown long-eared <i>Plectous auritus</i>	Score 3
Widespread in many geographies, but not as abundant in all [score 2]	Daubenton's bat <i>Myotis daubentonii</i> Natterer's bat <i>Myotis nattereri</i> Noctule bat <i>Nyctalus noctule</i>	Score 10
Rarer or restricted distribution [score 3]	Whiskered bat <i>Myotis mystacinus</i> Brandt's bat <i>Myotis brandtii</i> Serotine bat <i>Eptesicus serotinus</i> Nathusius' pipistrelle <i>Pipistrelle nathusii</i>	Score 12
Rarest Annex II species and very rare [score 4]	Alcathoe bat <i>Myotis alcathoe</i> Barbastelle <i>Barbastella barbastellus</i>	Score 16
Thresholds	Maximum	41



County importance threshold: 45%	County	18
Regional importance threshold: 55%	Regional	23
National importance threshold: 70%	National	29

- 2.26. The score for the Site based on the bat species recorded during the activity transects and static monitoring is presented in **Table 2.5** below.
- 2.27. The score achieved based on the species recorded during the survey and their relative abundance in the region, in this case the 'South-west'. The species recorded did not meet the importance threshold for county importance (Score of 18). Based on the species present, the low activity recorded on Site during transects and score achieved the assemblage of bats is considered to be of **local ecological importance**.

**Table 2.5:** Summary of bat species recorded and scoring system for assessing importance of bat assemblage

Species Recorded	Relative abundance	Score
<b>Common pipistrelle</b> <i>Pipistrellus pipistrellus</i>	Widespread	1
<b>Soprano pipistrelle</b> <i>Pipistrellus pygmaeus</i>	Widespread	1
<b>Nathusius pipistrelle</b> <i>Pipistrellus nathusii</i>	Rare or restricted distribution	3
<b>Serotine</b> <i>Eptesicus serotinus</i>	Rare of restricted distribution	3
<b>Noctule</b> <i>Nyctalus leisleri</i>	Widespread but not as abundant	2
<b>Myotis species</b> <i>Myotis spec.</i>	Widespread but not as abundant	2
<b>Total Score</b>		12

## Birds

- 2.28. The data search returned a number of records of protected and notable birds species within 2 km of the Site. Of these, some species of relevance to the Site include several red list bird species such as; skylark *Alauda arvensis*, swift *Apus apus*, house sparrow *Passer domesticus*, and starling *Sturnus vulgaris*.
- 2.29. Habitats on Site, such as the building, urban trees, hedgerows, and grassland have the potential to support common and widespread nesting birds and as such the Site was assessed as being suitable for a range of protected and notable bird species. As such, breeding bird surveys were conducted in order to .



## Breeding Bird Surveys

2.30. Four breeding bird surveys were conducted between May to July 2024. The results of these surveys are provided below in **Table 2.5** and shown in **Breeding Bird Territory Mapping Plan 16194/P08**. Full results including green listed species are provided in **Appendix 3**.

**Table 2.5:** Breeding Bird Survey Results (Excluding green listed species)

Bird species	Survey 1	Survey 2	Survey 3	Survey 4	Legal & Con-servational Sta-tus and BoCC	Breeding Status – Schedule 1, SoPI (S41), BoCC (Red and Amber only)
Black headed gull <i>Chroicocephalus ridibundus</i>	0	0	5	1	BoCC Amber	<b>Non breeder</b> – Flyovers recorded; no suitable breeding habitat on-site
Dunnock <i>Prunella modularis</i>	5	2	1	1	SoPI, BoCC Amber	<b>Probable breeder</b> – Likely breeding on Site with up to 5 territories identified in hedgerows, evidenced by singing males during multiple surveys
Greenfinch <i>Chloris chloris</i>	2	0	0	3	BoCC Red	<b>Possible breeder</b> – In hedgerows on Site, with evidence from calling and singing individuals
Herring gull <i>Larus argentatus</i>	0	0	0	1	SoPI, BoCC Red	<b>Non breeder</b> – Flyover recorded; no suitable breeding habitat on Site
Hobby <i>Falco Subbuteo</i>	0	0	2	0	Schedule 1	<b>Non breeder</b> – Observed flying and perching in tree lines. Trees may offer potential for nesting, but no direct evidence of breeding identified
Kestrel <i>Falco tinnuncultus</i>	0	0	0	3	BoCC Amber	<b>Non breeder</b> – Observed circling over Site. grass-land offers potential for foraging, but no suitable nesting features (e.g., hollow trees) identified or direct breeding evidence identified.



Red kite <i>Milvus milvus</i>	3	2	2	2	Schedule 1	<b>Non breeder</b> – recorded during all surveys. Grassland likely provides foraging value, and tree lines may offer potential nesting habitat, but no nests observed or direct breeding evidence identified.
Lesser black-backed gull <i>Larus fuscus</i>	0	4	4	1	BoCC Amber	<b>Non breeder</b> – Flyovers recorded; no suitable breeding habitat on Site.
Linnet <i>Carduelis cannabina</i>	0	4	5	2	SoPI, BoCC Red	<b>Possible breeder (on Site)</b> – Up to two pairs using scrub and hedgerow on Site. Sightings during all surveys support this assessment
Mistle thrush <i>Turdus viscivorus</i>	0	0	0	1	BoCC Red	<b>Possible breeder (off Site)</b> – Single record of calling bird; no evidence of breeding noted
Mallard <i>Anas platyrhynchos</i>	5	1	1	4	BoCC Amber	<b>Possible breeder (on Site)</b> – Regularly recorded, with potential nesting habitat near adjacent river habitats. However, no active nests of breeding confirmed
Skylark <i>Alauda arvensis</i>	1	0	0	0	SoPI, BoCC Red	<b>Possible breeder (off Site)</b> – Recorded signing in grassland off Site on one survey, west of the survey area, suggesting breeding nearby but not on Site.
Stock dove <i>Columba oenas</i>	4	4	3	9	BoCC Amber	<b>Probable breeder (off Site)</b> – Singing males recorded in woodland strips to the south and north of the site. likely up to four territories based on repeated observations.
Starling <i>Sturnus vulgaris</i>	0	7	0	16	SoPI BoCC Red	<b>Non breeder</b> – Flythroughs observed; unlikely to breed on Site due to lack of suitable nesting habitat. Grassland provides potential foraging value.



Swift <i>Apus apus</i>	0	0	0	5	BoCC Red	<b>Non breeder</b> – Flyovers recorded with no suitable nesting habitat on Site
Song thrush <i>Turdus philomelos</i>	7	7	7	3	SoPI BoCC Amber	<b>Probable breeder (on Site)</b> – Likely up to three pairs. Breeding evidence includes singing males, family groups, and juveniles mainly in scrub and hedgerows
Common white-throat <i>Sylvia communis</i>	7	7	1	6	BoCC Amber	<b>Probable breeder (on Site)</b> – Evidenced by singing males, family groups, and pair sightings in scrub and hedgerow habitat.
Wood pigeon <i>Columba plumbus</i>	7	5	7	7	BoCC Amber	<b>Possible breeding (on Site)</b> – Likely breeding based on frequent sightings near tree lines to the south and north. No active nests observed, but suitable habitat present.
Wren <i>Troglodytes troglodytes</i>	10	11	4	10	BoCC Amber	<b>Probable breeding (on Site)</b> – with up to 10 pairs on or adjacent to the site. evidence includes signing males, juveniles, and suitable habitat hedgerows and scrub areas

2.31. The breeding bird surveys identified a total of 23 species on, adjacent to or flying over the Site, including SoPI and BoCC species. With eleven probable or possible breeders either on site or within the adjacent habitats.

2.32. **Probable breeding** territories of amber and SoPI species were recorded on or adjacent to the Site for the following species:

- **Dunnock** – up to x5 territories utilising the hedgerows on Site
- **Stock dove** – up to x4 territories in the woodland off Site
- **Song thrush** – up to x3 territories utilising the scrub and hedgerows on Site
- **Common whitethroat** – up to x3 territories utilising the scrub and hedgerows on Site
- **Wren** – up to x10 territories utilising the hedgerows and scrub on Site

2.33. **Possible breeding** territories of red and amber species were recorded on or adjacent to the site for the following species:



- **Greenfinch** – up to x1 territory utilising the hedgerows on Site
- **Linnet** – up to x1 territory utilising the scrub and hedgerows on Site
- **Mistle thrush** – up to x1 territory utilising habitats off Site
- **Mallard** – up to x2 territories utilising the scrub and grassland to the north adjacent to the river
- **Skylark** – up to x1 territory utilising the grassland off Site
- **Wood pigeon** – up to x3 territories utilising the tree lines on Site

2.34. **Nonbreeding** red, amber and SoPI bird species were also recorded flying over the site or using adjacent habitats, assessed as unlikely to be breeding due to no suitable nesting suits being present on site or very limited activity being recorded, species included:

- **Black headed gull** – flyovers recorded; no suitable habitat located on Site
- **Herring gull** – flyovers recorded; no suitable habitat located on Site
- **Hobby** – observed flying and perching in tree lines, however very limited suitable habitat on Site
- **Kestrel** – observed circling over Site; no suitable nesting features located on Site
- **Red Kite** – limited suitable habitat located on Site; no nests observed or direct breeding evidence identified
- **Lesser black backed gull** – flyovers observed; no suitable habitat located on Site
- **Starling** – flythroughs observed; no suitable habitat located on Site
- **Swift** – flyovers recorded; no suitable habitat located on Site
- **Sand martin** – flyovers recorded; no suitable habitat on Site

2.35. Considering this context, in combination with the breeding bird survey results, the Site supports a small breeding assemblage of common and widespread bird species. As such, the assemblage of birds located on Site is considered to be of **local ecological importance**.

## Otter

2.36. No records of otter *Lutra lutra* were returned by the data search within 2 km of the site boundary.

2.37. During the previous 'Extended' Phase I and updated surveys, the Colne River and Poyle Channel adjacent to site were identified as having limited potential to support otter. However, due to the heavy use of the site of industry and agriculture the site was assessed as unlikely to support a population of otters. As such, otter surveys were scoped out of the assessment and considered **likely absent from site and will not be further discussed within this report**.



## Reptiles

- 2.38. No records of any reptile species were returned by the data search within 2 km of the site boundary.
- 2.39. Although habitats that may support reptiles are present on site, due to these areas being agriculturally managed, the site was assessed as unlikely to support a significant assemblage of reptile species. As such, reptile surveys were scoped out of the assessment and are considered **likely absent from site and will not be discussed further within this report.**

## West European Hedgehog

- 2.40. The data search returned 10 records of West European Hedgehog *Erinaceus europaeus* within 2 km of the site boundary, of which the nearest was 1.4 km from the site and the most recent was in 2021.
- 2.41. Habitats on Site that could support limited foraging and sheltering hedgehog include the areas of mixed scrub and hedgerow bases. Due to the further optimal habitat in the wider landscape any population utilising the site would be of **negligible ecological importance.**

## Invasive species

- 2.42. Invasive species are those listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to plant or otherwise cause to grow in the wild any plant which is included in Part II of Schedule 9
- 2.43. Buddleia was identified in several locations across the site. Removal and mitigation measures will be required during construction to prevent its spread, and appropriate control measures will be incorporated into a CEMP. The removal of this invasive species will contribute to the ecological enhancement of the site.



## Section 3: Ecological Impacts, Mitigation, and Enhancement

### Proposed Development

- 3.1. The proposals are for the demolition of the current buildings located onsite and the erection of a data centre, office, substation and battery yard. The potential impacts at this Site as a result of the proposed Development are set out below, with reference to relevant legislation and planning policy.

### Design Evolution

- 3.2. The design of the Development has been iterative, and in accordance with policy and best practice guidance, follow the 'mitigation hierarchy'. As such, the development has been designed to avoid and retain the most important ecological features to ensure they can be managed in the long-term to enhance their importance for biodiversity. Where this is not possible, new habitats have been proposed to compensate for habitat losses with the aim of maximising the overall ecological value of the habitats proposed on Site. A summary of how the design follows the mitigation hierarchy is set out below:

- In line with the mitigation hierarchy, measures have been taken to address the impact on the priority habitats on site. although the hawthorn hedgerows (H2 and H3) cannot be retained in their current locations, they will be translocated to suitable areas elsewhere on site. This approach ensures their ecological value is preserved while accommodating the development. Additionally, areas of mixed scrub in the southern parcel will be retained to further enhance habitat connectivity and biodiversity on site; and
- To facilitate the Development, 11 urban trees (eight hybrid black poplar and three hawthorn trees) and areas of mixed scrub are to be removed for the access road for the southern parcel to connect to Poyle Road as well as the erection of the data centre and roads on Site. To compensate and mitigate the loss of this habitat, compensatory planting and habitat creation, such as planting of new trees, scrub, hedgerows and grassland, will enhance opportunities for protected species. The primary habitats that will be impacted is developed land and agriculturally managed modified grassland which is of negligible ecological importance.

### Designated Sites

#### Statutory Sites

- 3.3. Given the nature of the Site proposals and the distances involved between the Site and South West London Waterbodies Ramsar and SPA, a Habitat Regulations Assessment (HRA) will be required. To support the a 'Shadow' HRA (sHRA) has been prepared by the Tyler Grange 16194/R04 to assess potential impacts on this designated Site.



- 3.4. Wraysbury Reservoir SSSI and Staines Moor SSSI lies 0.1 km south and 0.4 south west of the Site respectively. Whilst no impacts are anticipated for Staines Moor SSSI, impacts to Wraysbury Reservoir SSSI during the construction phase is anticipated via chemical/fuel run-off, noise/visual/vibration impacts, dust, etc. impacts are also anticipated during the operation phase to the Wraysbury Reservoir SSSI due to the erection of battery storage in this section of the site. To minimise this impact, noise barriers in the form of vegetation buffers to the southern section should be incorporated. Additionally, noisy activities in both construction and operational phase should be restricted during the particularly sensitive periods of time in the early morning and early evening.
- 3.5. Standard best practice pollution prevention<sup>17</sup> is expected to be incorporated into a Construction Environmental Management Plan (CEMP). These potential impact pathways will therefore be controlled, and impacts to Wraysbury Reservoir SSSI avoided.

### Non-statutory Sites

- 3.6. Wraysburys Reservoir SNIC lie 0.1 km south. Impacts during the operational phase are not anticipated due to the nature of the proposals. Impacts during construction activities could potentially occur to these Sites via dust deposition and run-off.
- 3.7. These potential impacts can be controlled through best practice pollution prevention measures, which can be implemented in a CEMP.
- 3.8. In summary, the production and implementation of a CEMP, to include standard best practice pollution prevention, is expected to be conditioned and therefore prevent impacts to the designated Sites above.

### Habitats and Flora

- 3.9. Most of the habitats on Site to be impacted by the proposals are of negligible ecological importance, namely building, hardstanding, vegetated garden and agriculturally managed modified grassland, and as such no specific mitigation is required.
- 3.10. The proposed Development required the removal of;
- Eight hybrid black poplar located within the northern parcel to facilitate the Development of the data centre and roads on Site.
  - Three hawthorn trees will also be lost for an access road connecting the southern parcel to Poyle Road.
  - Areas of mixed scrub are also marked for removal in the northern parcel.

The incorporation of planting and habitat creation on Site is expected to compensate for the loss of these habitats.

- 3.11. Trees to be retained will remain unaffected by the Development through the adoption of tree protection measures during the demolition and construction phase. Two of the existing

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<sup>17</sup> CIRIA (2015) *Construction Work Sector Guidance for Designers*. Fourth edition. (C755D).



priority habitat hawthorn hedgerows located on Site are to be retained and translocation has been proposed. These hedgerows will be translocated at the beginning of construction and will root protection measures will be adopted to ensure the hedgerows are able to re-establish in a new location on Site.

- 3.12. The proposed habitat creation includes the planting of native broadleaved trees, neutral and modified grassland areas, mixed scrub planting, alongside ornamental shrub planting, the creation of rain gardens and Sustainable Urban Drainage System (SuDS). It is anticipated that the incorporation of habitat creation within the design scheme will increase biodiversity and provide foraging, commuting and nesting opportunities for wildlife.
- 3.13. With the habitat creation mentioned incorporated within the design scheme to mitigate the loss of these habitats, the Site will achieve 115.53% net gain with the trading rules met. This is discussed further in **Section 4** of this report.
- 3.14. All newly created habitats will be subject to specific management measures with the aim of maximising their potential for biodiversity which will be included in a Habitat Management and Monitoring Plan (HMMP).
- 3.15. To protect retained on Site and adjacent habitats during the construction phase of the Development, a CEMP will be implemented to control potential impacts such as run-off and dust pollution. Suitable installation of fencing for the protection of hedgerows during construction will be advised by an arborist to ensure no impacts occur in line with British standard<sup>18</sup>.
- 3.16. Overall, the incorporation of habitat creation, the loss of certain habitats compensated and the protection of retained habitats is expected to improve the Site overall for biodiversity and result in a net gain and result in a positive impact. This is in line with core policies 8 and 9 from the Slough Local Core Strategy

## Protected and Notable Species

### Bats

- 3.17. Bat species, their breeding Sites and resting places are European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended) (CoHSR) and are afforded protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) (WCA), making it an offence to capture, injure or kill a bat or to disturb or obstruct access to a bat roost. Certain species of bat are also Species of Principal Importance (SoPI)<sup>19</sup> under the NERC Act 2006.

### Roosting Bats

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<sup>18</sup> British Standard for Heras fencing panels BS EN 13374.

<sup>19</sup> UK priority species are those subject to conservation action and referred to as Species of Principal Importance (SoPIs). They are listed at Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of SoPIs.



- 3.18. As shown in the Habitat Features and Preliminary Bat Roost Assessment Plan (16194/P04), Buildings B1 and B2 were assessed as having low suitability to support roosting bats. Both of these buildings are to be demolished for the proposed Development.
- 3.19. As no emergences were recorded following the emergence surveys undertaken on Building B1 and B2, it is deemed that roosting bats are likely absent from the Site. As such these buildings will not require legal protection in respect to bats and as such no mitigation is required for these buildings to be demolished for Development. If works are not completed within 12-18 months from the date of when the emergence survey was undertaken, an update survey will be required to ensure no bats have used the building to roost since the previous survey work
- 3.20. Both buildings will need to be demolished in the presence of a suitably qualified ecologist (SQE). Any section of the building with potential roosting features should be inspected by a licenced ecologist for at least 48 hours prior to work commencing.
- 3.21. To further enhance the Site for roosting bats, it is recommended that four bat boxes are integrated into the scheme design by either using integrated bat boxes or externally erected bat boxes (an example of these bat boxes is Ibstock Enclosed Bat Box 'C' or similar). Boxes should be made out of woodcrete. These boxes should be installed 3 m above ground level, facing southeast or south west, close to suitable foraging habitat (e.g. hedgerow or line or trees).

### Bat Activity

- 3.22. The habitats shown with the highest concentration of bat activity along the tree line of black poplars abutting the southern boundary, will be retained as part of the proposed Development. However, there may be impact on these habitats during the construction and operation phase if not appropriately mitigated. Bat activity on Site was mostly observed in areas where there was minimal to no lighting present.
- 3.23. The majority of species recorded during these surveys were pipistrelles. Pipistrelles are known to be light-tolerant species and as such will likely still continue to forage on Site where light levels are higher than they have previously been found. However, light-sensitive species were also recorded present on Site, namely *Myotis spp.* would be impacted with higher light levels and as such lighting is to be designed to be directed away from retained and created habitats.
- 3.24. Lighting in the operation phase will be designed in line with best practice guidelines<sup>20</sup> into the design, to minimise disturbance of bats and to maintain dark corridors which would include;
- Any external security lighting should be set on motion-sensors and on short timers;
  - Downward facing lamps with cowls where required.

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<sup>20</sup> Bat Conservation Trust and Institute of Lighting Professionals (2023) Guidance Note 08/23: Bats and artificial lighting in the UK. ILP, Rugby



- 3.25. During the construction phase, measures to control light pollution at night will be incorporated into a CEMP.
- 3.26. The Site will be enhanced for foraging and commuting bats through the planting of native trees and scrubs which will attract invertebrates and in turn enhance food resource onsite for bats. Additionally, the creation of SuDs, will increase the amount of aquatic habitats present at the Site which will also be to the benefit of invertebrates and provide further opportunity for foraging.
- 3.27. Overall, the measures undertaken will enhance foraging and commuting opportunities for bats, will create additional habitats as well as the implementation of bat boxes, will enhance the Site for bats post-Development. This is in line with core policies 8 and 9 from the Slough Local Core Strategy

## Birds

- 3.28. The breeding bird surveys on site recorded a total of 25 species with 19 of these identified as species either of SoPI, Schedule 1, BoCC red and amber bird species. Of the 25 notable species, it was assessed based on the survey results and habitats on site that 11 of these were assessed as probable or possible breeders on Site and adjacent.
- 3.29. All birds, their nests and eggs, are protected by law and as such it is an offence to intentionally kill, injure, or take any wild bird; intentionally take, damage, or destroy the nest of any wild bird while it is in use or being built; and intentionally take or destroy the egg of any wild bird.
- 3.30. To avoid triggering the legislation protecting nesting birds, clearance of suitable habitat (the buildings, trees, and hedgerow) should be timed outside the nesting bird season (generally taken as March to September inclusive, though this is not defined in law and birds may nest outside of this time).
- 3.31. If any clearance works to nesting habitats are required during the nesting season, then pre-removal checks for nesting birds must be carried out by a suitably experienced Ecological Clerk of Works (ECoW), no more than 48 hours prior to the works commencing. If any nesting birds are found to be present, an appropriate buffer zone will be implemented, within which works are excluded for the duration of the breeding attempt. Any active nests will need to be left in situ until a suitably experienced ecologist confirms that the chicks have fledged and the nest is no longer active.
- 3.32. Habitat creation such as the planting of trees, scrub, hedgerows and grasslands is expected to increase nesting opportunities on Site. The grassland will be managed to provide enhanced breeding habitat for ground nesting birds, through the seeding of tussocky grass and wildflower species (such as Emorsgate EM10, or similar). Creation of scrub areas is expected to increase nesting opportunities and will be managed appropriately.
- 3.33. Additionally, four woodcrete bird boxes (such as Treecreper Nest Box or similar) are recommended to be incorporated within scheme, targeting species protected and species previously recorded to be present on Site or nearby, for example stock dove, sand martins and kestrels.



- 3.34. It is considered that with the retention of most potential breeding bird habitat and new habitat creation with management proposed, opportunities will be enhanced for birds and no significant impacts will occur. This is in line with core policies 8 and 9 from the Slough Local Core Strategy



## Section 4: Biodiversity Net Gain

- 4.1. The National Planning Policy Framework (NPPF), requires Developments to demonstrate a net gain in biodiversity. In addition, the Town and Country Planning Act has made a 10% net gain mandatory from February 2024.
- 4.2. A Development achieves biodiversity net gain when the total biodiversity units present post-Development is higher than that of the biodiversity units present on Site prior to Development. Defra's Statutory metric has been used to calculate the biodiversity value of the Site before and after Development in terms of "biodiversity units" to calculate an overall biodiversity net gain or loss.

### Existing Habitats

- 4.3. The following habitats are present within the red line boundary of the Site and are shown on **Habitat Features and Bat Roost Assessment Plan 16194/P04**. No watercourses habitats were present as such the Development is except from river BNG. The rationale for condition assessments is detailed within the metric **16194/BNG**.
- 4.4. The results of the habitat surveys were used to inform the completion of condition assessments for all habitats, which were completed with reference to 'The Statutory Biodiversity Metric User Guide (see **Appendix 4**)



**Table 4.1. Baseline Habitats and Areas Retained and Enhanced**

Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Condition	Area retained (hectares)	Area enhanced (hectares)	Area lost (hectares)
Urban	Developed land; sealed surface	4.62	V.Low	N/A - Other	0	0	4.62
Urban	Artificial unvegetated, unsealed surface	0.26	V.Low	N/A - Other	0	0	0.26
Urban	Urban Tree	0.35	Medium	Moderate	0.17	0	0.18
Urban	Urban Tree	0.01	Medium	Poor	0.01	0	0.01
Urban	Vegetated garden	0.008	Low	Condition Assessment N/A	0	0	0.008
Grassland	Modified grassland	2.04	Low	Poor	0	0	2.04
Grassland	Other neutral grassland	0.07	Medium	Poor	0	0	0.07
Heathland and shrub	Bramble scrub	0.24	Medium	Condition Assessment N/A	0	0	0.24
Heathland and shrub	Mixed scrub	0.5	Medium	Poor	0	0	0.5

**Table 4.2. Baseline Hedgerows and Lengths Retained and Enhanced**

Hedge number	Hedgerow type	Length (km)	Distinctiveness	Condition	Length retained (km)	Length enhanced (km)	Length lost (km)
H1	Non-native and ornamental hedgerow	0.19	V.Low	Poor	0.19	0	0
H2	Native Hedgerow	0.11	Low	Moderate	0	0	0.11
H3	Native Hedgerow	0.06	Low	Moderate	0	0	0.06
H4	Native Hedgerow	0.06	Low	Moderate	0.06	0	0
H5	Native hedgerow	0.06	Low	Moderate	0.06	0	0



TL1	Line of Black Poplar Trees	0.24	Low	Moderate	0.24	0	0
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## Proposed Habitats

4.5. The proposals, as shown within **Appendix 1** and the **Post-Development Habitat Plan 16194/P05**, have been used to calculate the proposed habitat areas. The rationale for target condition assessments is detailed within the metric **16194/BNG**.

**Table 4.3. Created and Enhanced Habitats**

Broad Habitat	Proposed habitat	Area (hectares)	Created/enhanced	Baseline condition	Distinctiveness	Target condition
Urban	Developed land; sealed surface	3.9	Created	N/A	V.Low	N/A - Other
Urban	Sustainable drainage system	0.16	Created	NA	Low	Moderate
Urban	Rain garden	0.12	Created	NA	Low	Moderate
Urban	Artificial unvegetated; unsealed surface	0.003	Created	N/A	V.Low	N/A - Other
Urban	Introduced shrub	0.07	Created	NA	Low	Condition Assessment N/A
Urban	Urban tree	0.32	Created	NA	Medium	Moderate
Heathland and shrub	Mixed scrub	0.67	Created	NA	Medium	Moderate
Grassland	Modified grassland	2.11	Created	NA	Low	Good
Grassland	Other neutral grassland	0.5	Created	NA	Medium	Moderate
Urban	Developed land; sealed surface (Reinforced Grass)	0.07	Created	NA	V.Low	N/A - Other
Grassland	Modified grassland (Reinforced Grass)	0.07	Created	NA	Low	Poor



A net gain of 11.76 habitat units, +115.53%

**Table 4.4. Created and Enhanced Hedgerows**

Habitat type	Length (km)	Created/enhanced	Distinctiveness	Target condition
Non-native and ornamental hedgerow	0.02	Created	V.Low	Poor
Non-native and ornamental hedgerow	0.03	Created	V.Low	Poor
Native Hedgerow	0.1	Created	V.Low	Poor
Native Hedgerow	0.05	Created	V.Low	Poor
Non-native and ornamental hedgerow	0.006	Created	V.Low	Poor
Native Hedgerow (H2)	0.11	Created	Low	Moderate
Native Hedgerow (H3)	0.06	Created	Low	Moderate
A net gain of 0.25 hedgerow units, +10.69%				



## Results Summary

- 4.6. As described within The Statutory Biodiversity Metric **16194/BNG** and summarised below in **Figure 4.1**, based on the habitats present on Site that will be lost and those to be created, the Development would result in a gain of 11.76 habitat units, and a gain of 0.25 hedgerow units. This is a percentage gain of 115.53% in habitat units and 10.69% in hedgerow units.
- 4.7. In order for the Development to meet trading rules and to mitigate the loss of several trees, at least 15 trees planted of the 76 incorporated into the design scheme, need to be medium sized trees. With the planting of these trees, and the remaining trees to remain as small trees, the Development will mitigate the loss of these trees and meet trading rules. Additionally, the loss of bramble scrub is mitigated through the planting of the same distinctiveness habitat of mixed scrub throughout the site.

FINAL RESULTS		
<b>Total net unit change</b> (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	11.76
	<i>Hedgerow units</i>	0.25
	<i>Watercourse units</i>	0.00
<b>Total net % change</b> (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	115.53%
	<i>Hedgerow units</i>	10.69%
	<i>Watercourse units</i>	0.00%
<b>Trading rules satisfied?</b>	Yes ✓	

Figure 4.1: Biodiversity Net Gain Assessment Results Summary, taken from The Statutory Biodiversity Metric.

## Management

- 4.8. The results of The Statutory Biodiversity Metric are based on the habitats within the Site being maintained at a certain condition, as prescribed by the condition assessment sheets published by Defra.
- 4.9. Details of habitat establishment and long-term management will be provided through the production of a Habitat Management and Monitoring Plan (HMMP). The HMMP would set out the prescriptions for the establishment and maintenance of the habitats on Site for 30 years.



## Section 5: Conclusions

- 5.1. In terms of protected Sites, a Natura 2000 Site of international importance, namely South West London Waterbodies SPA and Ramsar, may be subject to significant impacts from proposed Development. As such a shadow Habitat Regulation Assessment (HRA) is required and has also been issued to determine these impacts and design appropriate mitigation.
- 5.2. **Designated sites:** The Site is also located within a Site of Special Scientific Interest (SSSI) Impact Risk Zone of Wraysbury Reservoir, which will require consultation with Natural England during determination through their Discretionary Advice Service (DAS) to discuss impacts. To further mitigate any impacts on this Site as well as several other non-statutory Sites from construction activities, mitigation measures will be implemented and secured through an appropriately worded Construction Environmental Management Plan (CEMP). Sensitive lighting strategies and noise strategies will also be required to provide further explanation on mitigation measures.
- 5.3. **Habitats:** The Development will primarily affect habitats of negligible ecological importance. Loss of eleven trees and mixed scrub, of local ecological importance, will be compensated for by replacement tree and scrub planting. With the enhancements and habitat creation proposed, including native species planting, habitats of ecological importance on Site will be enhanced, providing additional opportunities for biodiversity within the Site.
- 5.4. **Protected species:**
- 5.5. **Bats:** Building B1 and B2 were assessed as having low suitability to support roosting bats in regard to the PRFs located on the buildings. No emergences were recorded during the dusk emergence survey and as such bat roosts are considered likely absent from the Site. should 12 months elapse between the date of emergence survey and demolition commencing, a repeat survey will be required.
- 5.6. **Breeding birds:** Should vegetation or the building on the Site be removed during the core nesting bird season (March-August, inclusive), a pre-works check by an ECoW would be required to determine whether active birds' nests are present.
- 5.7. **BNG:** The proposals would result in a net gain of 11.76 habitat units (115.53%) and a net gain of 0.23 hedgerow units (10.07%). The site also meets trading rules due to the planting of at least 15 medium sized trees and 61 small trees to mitigate the loss of eleven trees for development. Two hedgerows of principal importance (H2 and H3) will be retained in the design scheme, however will be translocated to another area of the site. Within the BNG metric, these hedgerows have been marked as a loss and included within the habitat creation section as they will be temporarily removed from site before being re-planted. Two additional native hedgerows have been included in the design scheme to mitigate this loss.
- 5.8. An appropriately worded planning condition is expected to secure a suitable HMMP to ensure the long-term management of the proposed habitat enhancements, including proposed tree, hedge, shrub, and grassland planting. Provision of enhancements for specific species groups such as bird and bat boxes is expected to be secured via a suitable worded planning condition.



- 5.9. In conclusion, in anticipation of the implementation of any necessary mitigation, the proposed Development will be compliant with relevant planning policies, including core policies 8 and 9 from the Slough Local Core Strategy, as well as legislation with regard to ecology.



# Appendix 1: Proposed Site Plan [CON-COR-ZZ- ZZ-D-A-00104-P6 - PROPOSED SITE PLAN]



**NOTES:**  
Do not scale for construction. Figured dimensions only to be taken from this drawing. Check dimensions on site and report discrepancies back to the Architect. All areas have been measured from current drawings. They may vary because of (e.g) survey, construction tolerances, Statutory requirements or re-definition of the area to be measured.  
This drawing has been prepared in accordance with the scope of Corgan's appointment to its Client and subject to the T&Cs of that appointment. Corgan accepts no responsibility for the use of this document for any other purpose.  
This drawing is to be read in conjunction with all relevant drawings and specifications from other disciplines. Please refer to Civil, Landscape and M&E drawing where referenced.  
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**LEGEND**  
— DEVELOPMENT BOUNDARY  
20.16 Acre  
— ADJACENT OWNERSHIP BOUNDARY  
64.51 Acre  
TOTAL BOUNDARY AREA  
74.67 Acre

**PARKING SCHEDULE**

Comments	COUNT
Standard Bay	81
WCA Bay	5
	86

Rev	Revision/Description	Date	Author	Reviewer
01	Issue for Pre-application	24.08.22	VC	
02	Issue for Pre-application	24.08.22	VC	
03	Issue for Pre-application	24.08.22	VC	
04	Issue for Pre-application	24.08.22	VC	
05	Issue for Pre-application	24.08.22	VC	
06	Issue for Pre-application	24.08.22	VC	
07	Issue for Pre-application	24.08.22	VC	
08	Issue for Pre-application	24.08.22	VC	
09	Issue for Pre-application	24.08.22	VC	
10	Issue for Pre-application	24.08.22	VC	
11	Issue for Pre-application	24.08.22	VC	
12	Issue for Pre-application	24.08.22	VC	

**DRAFT**

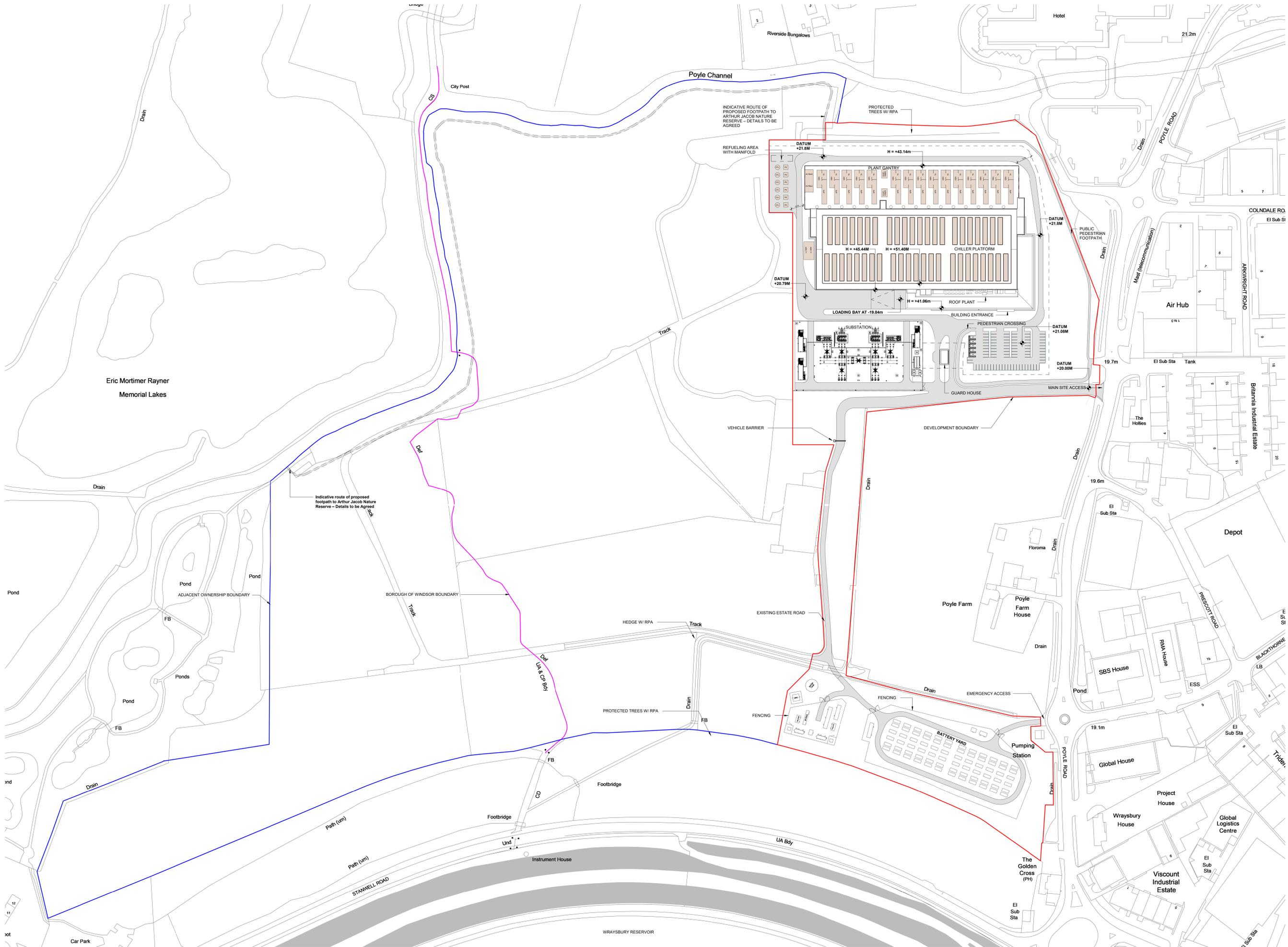
**Client:** Tritax Limited  
**Project:** Manor Farm  
**Address:** Poyle Road, Slough, SL3 0BL, England, U.K.

**Title:** PROPOSED SITE PLAN

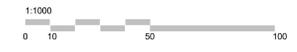
Scale	As Issued	Size	A1
Date	02.08.2024	Drawn	MB
Job Number	2402.0000	Checked	VC

CON · COR · ZZ · Z · D · A · 00164

STATUS: S3 REVISION: P06



**1 PROPOSED SITE PLAN**  
1:1000



## Appendix 2: Legislation and Planning Policy

### Legislation

A2.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Protection of Badgers Act 1992
- The Hedgerows Regulations 1997
- The Countryside and Rights of Way (CROW) Act 2000
- The Natural Environment and Rural Communities Act (NERC) 2006
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Environment Act 2021;

### **The Wildlife and Countryside Act (WCA) (1981) (as amended);**

A2.2. The WCA 1981 (as amended) is a piece of legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 by reason of their flora, fauna, geology or other features.

A2.3. Schedule 5 establishes a list of protected species in England and Wales which are protected under Section 9 subsections 4b, 4c and 5 which makes it an offence to:

- i) Disturb any protected species while it is occupying a structure or place which it uses for shelter or protection;
- ii) Obstruct access to any structure or place which any such animal uses for shelter or protection;
- iii) Sell, offer or expose for sale, or have in possession or transport for the purpose of sale (any live or dead wild Schedule 5 animal or any part or anything derived from such an animal); or
- iv) Publish or cause to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things.

A2.4. Schedule 6, Section 11 also states protected species cannot be killed or taken by certain methods, such as traps and nets, poisons, automatic weapons, electrical devices, smoke / gases etc.

A2.5. This legislation covers protected species in all life stages, and they are all afforded the same protection.



A2.6. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest Site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.

### **The Protection of Badgers Act (1992);**

A2.7. The Protection of Badgers Act 1992 consolidates the previous Badger Acts of 1973 and 1991. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status. As well as protecting the animal itself, the 1992 Act also makes the intentional or reckless destruction, damage, or obstruction of a badger sett an offence.

A2.8. A sett is defined as 'any structure or place which displays signs indicating current use by a badger'. In addition, the intentional elimination of sufficient foraging area to support a known social group of badgers may, in certain circumstances, be construed as an offence by constituting 'cruel ill treatment' of a badger. Badgers are not the subject of conservation action.

A2.9. Due to the continued persecution of this species, all details relating to the location of badger setts must be kept out of the public domain and not submitted to any public portal as part of the application submission.

### **The Wild Mammals (Protection) Act (1996);**

A2.10. The Wild Mammals (Protection) Act 1996 protects wild mammals (those not classed as protected animal under the Animal Welfare Act 2006) from intentional harm, killing and forms of injury or torture. Provisions are also in place to allow for the killing of animals in certain exception circumstances such as mercy killing.

### **The Hedgerows Regulations (1997);**

A2.11. The Hedgerows Regulations 1997 protect and prohibit the removal of countryside hedgerows (or parts of them) without first notifying the local planning authority. An important hedgerow under the regulations is any hedgerow that meets one of the below criteria:

- 20 meters or more in length;
- Less than 20 meters in length but meet another hedgerow at each end; and
- On, or adjoining, land used for agriculture, forestry, breeding or keeping horses, ponies, or donkeys, common land, village greens, Sites of Special Scientific Interest, or Local Nature Reserves.

A2.12. These regulations don't not apply to domestic gardens.

### **The Countryside and Rights of Way Act (2000);**

A2.13. The Countryside and Rights of Way Act 2000 establishes further protections through amends the law introduced in the WCA 1981 (as amended) relating to the conservation of nature and protection of wildlife. It includes the following amendments;

- Amends Schedule 9 of the WCA 1981 (as amended) to include offences relating to laws protection Sites of Special Scientific Interest;



- Amends schedule 10 and 11 of WCA 1981 (as amended) to allow for the designation and notification of relevant government bodies for Ramsar Sites under paragraph 1 of article 2 of the Ramsar convention; and
- Amends Section 51 of the WCA 1981 (as amended) to include additional powers to enter private land, including to assess the condition of the flora, fauna, or geological or physiographical features by reason of which land which has been notified under section 28(1) is of special interest.

### **The Natural Environment and Rural Communities (NERC) Act (2006);**

- A2.14. The NERC Act, 2006 further increases protection of species and habitats originally set out in WCA 1981 (as amended).
- A2.15. Section 40 places a duty to conserve biodiversity on public authorities in England. It requires local authorities and government departments to have regard to the purposes of conserving biodiversity in a manner that is consistent with the exercise of their normal functions such as policy and decision-making. Conserving biodiversity may include enhancing, restoring or protecting a species population or a habitat
- A2.16. Section 41 requires the Secretary of State to publish and maintain a list of species and habitats regarded by Natural England as of principle importance. These are known as Species of Principle Importance (SoPI) and Habitat of Principle Importance (HoPI). These were originally drawn from the Biodiversity Action Plan previously established by English Nature.
- A2.17. Section 41 also established the requirement and duty of local and regional planning authorities to take into account species and habitats set out in Section 41, when making policy and planning decisions, including determining planning conditions.
- A2.18. The NERC Act 2006 also makes changes to the original legislation set out in the WCA (as amended) 1981, these include;
- Clarifications relating to the protection of wild and captive bred birds;
  - Prohibits the use of certain pesticides; and
  - Provides further clarification on the sale of plants and animals and their parts.

### **The Conservation of Habitats and Species Regulations (Habitats Regulations) (2017)**

- A2.19. The Conservation of Habitats and Species Regulations 2017 (as amended) is the legal framework to protect the species and habitats covered by the European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992 (EEC Council Directive 92/43/EEC), often referred to as the 'Habitats Directive', enacted under UK law from the UK leaving the European Union. It provides for the protection of key habitats and species considered of international importance.
- A2.20. It is considered the primary piece of legislation protecting habitat and species, and subsequent protected Sites on which they are designated, overriding the WCA 1981 (as amended).



A2.21. Schedule 2 of the Habitat Regulations 2017 further increases protection and established a list of protected animal species. It lists species considered as European Protected Species (EPS).

A2.22. Schedule 3 of the Habitat Regulations 2017 further increases protection and established a list of protected plant species.

A2.23. Regulation 41 (1) makes it an offence to:

- Deliberately take, injure or kill a protected species;
- Intentionally or recklessly disturb a protected species in its resting or breeding place or deliberately disturb a group of protected species;
- Damage or destroy a place used by protected species for breeding or resting place (even if are not occupied at the time);
- Possess or advertise / sell / exchange a protected species found in the wild in the EU (dead or alive) or any part of a protected species; and
- Intentionally or recklessly obstruct access the resting place of a protected species.

A2.24. Regulation sets out the licensing to allow for activities under Regulation 41 (1) to become lawful.

## **The Environmental Act 2021**

A2.25. The Environmental Act 2021 make provision about targets, plans and policies for improving the natural environment.

A2.26. Part 6 and 7 of the Environmental Act 2021 includes provisions to strengthen and improve the duty on public bodies to conserve and enhance biodiversity, including mandating 10% a net gain biodiversity through the planning system.

A2.27. It also established the Office for Environment Protection (OEP) a regulatory statutory body (or watchdog) that provides independent oversight of the government's environmental progress.

## **The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024.**

A2.28. The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024 allow for the exercise of powers established in the Town and Country Planning Act 1990 and of the Environment Act 2021. It is mandatory for nearly all Development (with a small number of exceptions) to achieve at least a 10% gain in biodiversity units under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).

A2.29. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2017 (as amended).



## National Planning Policy

### National Planning Policy Framework (NPPF), December 2023

A2.30. The updated National Planning Policy Framework (NPPF) was published in December 2023 and sets out the Government's planning policies for England and how these should be applied. It replaces the first National Planning Policy Framework published in March 2012. The below sections and paragraphs sets out the sections and paragraphs relating to biodiversity.

A2.31. Paragraph 11 states that:

*"Plans and decisions should apply a presumption in favour of sustainable Development."*  
Section 11 of the NPPF, paragraph 120, sub-section b states that planning policies and decisions should:

- b) *"encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains such as Developments that would enable new habitat creation or improve public access to the countryside;*
- c) *recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production"*

A2.32. Section 15 of the NPPF (paragraphs 174 to 188) considers the conservation and enhancement of the natural environment.

A2.33. Paragraph 180 states that planning and decisions should contribute to and enhance the natural and local environment by:

- a) *"protecting and enhancing valued landscapes, Sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the Development plan);*
- b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- c) *maintaining the character of the undeveloped coast, while improving public access to it where appropriate; and*
- d) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*

A2.34. Paragraph 181 states that plans should: distinguish between the hierarchy of international, national and locally designated Sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

Paragraph 185 states that in order to protect and enhance biodiversity and geodiversity, plans should:



- a) *"Identify, map 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<sup>21</sup>; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation<sup>22</sup>; and*
- b) *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

A2.35. When determining planning applications, Paragraph 186 states that local planning authorities should apply the following principles:

- a) *"if significant harm to biodiversity resulting from a Development cannot be avoided (through locating on an alternative Site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) *Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other Developments), should not normally be permitted. The only exception is where the benefits of the Development in the location proposed clearly outweigh both its likely impact on the features of the Site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) *Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons<sup>23</sup> and a suitable compensation strategy exists; and*
- d) *Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around Developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."*

A2.36. As stated in paragraph 187 the following should be given the same protection as habitats Sites<sup>24</sup>:

- a) *"potential Special Protection Areas and possible Special Areas of Conservation;*
- b) *listed or proposed Ramsar Sites<sup>25</sup>; and*

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<sup>21</sup> Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

<sup>22</sup> Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of Development that may be suitable within them.

<sup>23</sup> For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

<sup>24</sup> The policies referred to are those in this Framework (rather than those in Development plans) relating to: habitats Sites (and those Sites listed in paragraph 181) and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, an Area of Outstanding Natural Beauty, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 68); and areas at risk of flooding or coastal change.

<sup>25</sup> Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar Sites are Sites on which Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar Site.



- c) *Sites identified, or required, as compensatory measures for adverse effects on habitats Sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar Sites.*"

A2.37. Paragraph 182 states that the presumption in favour of sustainable Development does not apply where the plan or project is likely to have a significant effect on a habitats Site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats Site.

## Local Planning Policy

### Slough Local Development Framework Core Strategy 2006-2026<sup>26</sup>

A2.38. Core Policy 8: Sustainability and the Environment

*All Development in the Borough shall be sustainable, of a high quality design, improve the quality of the environment and address the impact of climate change.*

1. *Sustainable Design and Construction Principles: All Development should, where feasible, include measures to:*
  - a. *Minimise the consumption and unnecessary use of energy, particularly from non-renewable sources;*
  - b. *Recycle waste;*
  - c. *Generate energy from renewable resources;*
  - d. *Reduce water consumption; and*
  - e. *Incorporate sustainable design and construction techniques, including the use of recycled and energy efficient building materials.*
2. *High Quality Design: All Development will:*
  - a. *Be of a high quality design that is practical, attractive, safe, accessible and adaptable;*
  - b. *Respect its location and surroundings;*
  - c. *Provide appropriate public space, amenity space and landscaping as an integral part of the design; and*
  - d. *Be in accordance with the Spatial Strategy in terms of its height, scale, massing and architectural style.*

*The design of all Development within the existing residential areas should respect the amenities of adjoining occupiers and reflect the street scene and the local distinctiveness of the area.*

3. *Pollution Development shall not:*
  - a. *Give rise to unacceptable levels of pollution including air pollution, dust, odour, artificial lighting or noise;*
  - b. *Cause contamination or a deterioration in land, soil or water quality; and*
  - c. *Be located on polluted land, areas affected by air pollution or in noisy environments unless the Development incorporates appropriate mitigation measures to limit the adverse effects on occupiers and other appropriate receptors.*
4. *Flooding*

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<sup>26</sup> Slough Local Development Framework Core Strategy, 2006-2026,  
<https://www.slough.gov.uk/downloads/file/2273/Development-plan-core-strategy-2006-2026> [Accessed 09/10/2023]



- a. *Development will only be permitted where it is safe and it can be demonstrated that there is minimal risk of flooding to the property and it will not impede the flow of floodwaters, increase the risk of flooding elsewhere or reduce the capacity of a floodplain; and*
- b. *Development must manage surface water arising from the Site in a sustainable manner which will also reduce the risk of flooding and improve water quality.*

#### A2.39. Core Policy 9: Natural and Built Environment

*Development will not be permitted unless it:*

- *Enhances and protects the historic environment;*
- *Respects the character and distinctiveness of existing buildings, townscapes and landscapes and their local designations;*
- *Protects and enhances the water environment and its margins;*
- *Enhances and preserves natural habitats and the biodiversity of the Borough, including corridors between biodiversity rich features.*

### Slough Local Plan (Adopted March 2004)<sup>27</sup>

#### A2.40. Policy EN21: Protection of Designated Nature Conservation Sites

Development will not be permitted which would be detrimental either directly or indirectly to designated and future statutory Local Nature Reserves, habitats of specially protected or endangered species, Sites of Special Scientific Interest and Sites of international importance.

#### **Wildlife Heritage Sites and Features of Ecological Interest**

Wildlife Heritage Sites are those which have been identified by ecological survey as being of importance for nature conservation using the criteria contained in the Berkshire Nature Conservation Strategy. They include statutory designated Sites and other Sites of local importance. For the latter, identification as a Wildlife Heritage Site does not mean Development will always be refused but indicates nature conservation will be a very important factor in determining whether Development is appropriate. Where Development proposals affect a nature conservation interest, in certain circumstances it may be acceptable to provide a replacement habitat provided that there would be no overall loss of wildlife habitat, wildlife could realistically re-establish itself in a reasonable period, and future management is assured.

The following Sites have been identified as Wildlife Heritage Sites and are shown on the Proposals Map:

- Land east of Slough Sewage Works
- Haymill Valley
- Cocksherd Bluebell Wood
- Railway triangle, undeveloped area
- Upton Court Park, wetland on southern boundary
- Land west of Hollow Hill Lane and south of canal
- Queen Mother Reservoir

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<sup>27</sup> Slough Local Plan (Adopted March 2004) [Online]. Available at <https://www.slough.gov.uk/downloads/file/2272/slough-local-plan-2004-saved-polices> [Accessed 20/11/2024]



- Old Wood
- South Iver Gravel Pits complex (part) [Old Slade Lake, Colnbrook West, Orlitt's Lake and part of the Colne Brook]
- Crown Meadow

The following Sites have been surveyed and identified as potential Wildlife Heritage Sites to be confirmed:

- Poyle Channel
- Wraysbury River
- Slough Arm of Grand Union Canal
- Colne Brook (south of South Iver Gravel Pits Complex)

Other Sites may also have features of nature conservation interest of local value either individually or as part of a group or corridor beyond the Site. The Borough Council will seek further surveys to identify additional Wildlife Heritage Sites and will also require ecological appraisals of any proposed Development Site where nature conservation interests are thought to be threatened, regardless of whether or not it has been identified as a Wildlife Heritage Site, for example ponds and watercourses (together with their margins), and features that form part of a corridor for wildlife.

#### A2.41. Policy EN22: Protection of Sites with Nature Conservation Interest

*Special account will be taken of nature conservation interest when determining proposals for Development which would be detrimental to identified and future Wildlife Heritage Sites and any other land which meets the criteria for Wildlife Heritage Sites or contains features of local ecological importance.*

*Any proposed Development which would have a detrimental effect on such a Site will be refused unless it can be demonstrated that appropriate measures can be taken to conserve the Site's wildlife interest as far as possible.*

*Ecological appraisals will be required where proposed Development is likely to threaten any nature conservation interest.*

#### **Promoting Nature Conservation**

*The appropriate management of Sites not only to retain their nature conservation value but to enhance it or create a new wildlife habitat is particularly important in Slough, bearing in mind the lack of natural habitat in the Borough. Wildlife Heritage Sites form a base resource but all other areas of green space including many back gardens and streamside areas can make a contribution to wildlife by providing links between open countryside and the other Sites that wildlife can use.*

*There is also the opportunity to increase the nature conservation value of certain areas of green space within the Borough. Parks and amenity areas can, where appropriate, be managed in such a way as to increase their nature conservation value provided this is balanced with the need to retain easy public access. Rail-side, canal-side and some streamside areas provide wildlife corridors which may be appropriate for protection and enhancement. Unused and overgrown*



land can also form the basis of wildlife Sites if managed properly. Landscape schemes for new Developments can also be designed to encourage wildlife as sought in Policy EN3

The Borough Council will, therefore, seek opportunities to protect, enhance or create wildlife habitats and corridors and seek appropriate management of Sites where possible, involving local wildlife or community groups where interest is shown, for example through the Local Agenda 21 process. Certain Sites have been identified as appropriate for designation as informal nature reserves for which appropriate management will be sought. Other areas are also likely to be suitable particularly those adjacent and close to existing Sites of wildlife value.

#### A2.42. Policy EN24: Protection of Watercourses

Development will not be permitted which will have a detrimental effect on water quality or the ecological, amenity or historical value of the watercourse. Where appropriate, measures to enhance or restore watercourses will be encouraged. In certain circumstances, the substitution of replacement features of equal or greater value, through the use of planning conditions or agreements, will be considered if there is no overall detrimental affect on water quality, ecological or amenity value.

### GENERAL ENVIRONMENTAL ISSUES

#### Planning and noise

Noise is a particularly sensitive issue in a heavily built up area such as Slough with its mixture of land uses and dense population. PPG24 - Planning and Noise (1994) states that the impact of noise can be a material consideration in the determination of planning applications, and the planning system should ensure, wherever practicable, that noise sensitive Developments are separated from major sources of noise such as road, rail, air transport and certain types of industrial Development.

Given the proximity of Heathrow Airport, part of the Borough falls within the 72 dB contour (as published by the Civil Aviation Authority in 1994) which means that it is continually subject to high levels of noise. Parts of the Borough also experience noise from other sources such as road, railway, commercial and entertainment activities.

At the same time, the background noise levels in other parts of the Borough are quite low which means that the introduction of noisy activities into these areas will be especially disruptive to local residents. As a result, the Borough Council will seek to prevent noisy uses locating in sensitive areas without proper safeguards on their activities. Where it is not possible to achieve separation of land uses, the Borough Council will require developers to take measures to mitigate any nuisance by controlling noise levels.

The impact of noise upon new residential schemes can be reduced by the careful design of the scheme including the appropriate siting of garages and gardens, maximising the distances between dwellings and noise sources, and orientating living accommodation away from potential noise. In some cases it may be necessary to limit the type of housing permitted to ensure that family houses which require the enjoyment of outside amenity space are not permitted in areas with very high levels of ambient noise.



*The Borough Council will impose controls to limit the overall amount of noise that can be generated by new Developments and restrict the hours of operation so that the amenities of adjoining neighbours and residents are not adversely affected. In terms of late night leisure uses within the town centre, the policies of the shopping chapter should be referred to which indicate those areas where such uses will be considered acceptable.*

*In order to control noise during construction works, it will be normal practice to require all Development to comply with the provisions of the Control of Pollution Act 1974, and British Standard 5228 (1984) for limiting noise emanating from construction activities where these may have adverse effects on neighbouring uses.*

*The following policies will be applied to all new proposals for residential Development, and at all times Annex 1 of PPG24 defining the noise exposure categories will be used to assess planning applications. Where it is thought appropriate, developers will be required to provide noise impact statements to support their planning applications*



## Appendix 3: Methodology and Results

### Data Search

- A3.1. A desk-based study was conducted whereby records of designated Sites and records of protected and priority species were purchased and interrogated for the Site and the surrounding landscape. The aim of the data search is to collate existing ecological records for the Site and adjacent areas. Obtaining existing records is an important part of the assessment process as it provides information on issues that may not be apparent during a single survey, which by its nature provides only a 'snapshot' of the ecology of a given Site.
- A3.2. The following resources were consulted/contacted:
- Multi-Agency Geographic Information for the countryside (MAGIC) website<sup>28</sup>;
  - Thames Valley Environmental Records Centre (TVERC)<sup>29</sup> (Data ordered on 5<sup>th</sup> October 2023 and received on 5<sup>th</sup> October 2023);
  - Greenspace Information for Greater London (GiGL)<sup>30</sup> (Data ordered on 5<sup>th</sup> October 2023 and received on 8<sup>th</sup> October 2023);
  - Surrey Biodiversity Information Centre Local Records (SBIC)<sup>31</sup> (Data ordered on 5<sup>th</sup> October 2023 and received on 17<sup>th</sup> October 2023);
  - Slough Borough Council website<sup>32</sup>;
  - Joint Nature Conservation Committee (JNCC) website<sup>33</sup>;
  - Natural England (NE) designated Sites website<sup>34</sup>;
  - Ordnance Survey mapping; and
  - Google Maps, including aerial photography.
- A3.3. The following areas of search around the boundary of the Site boundary were applied:
- 2 km for protected and priority species, national statutory designated and non-statutory Sites; and
  - 10 km for European statutory Sites.

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<sup>28</sup> <https://magic.defra.gov.uk/> [Accessed 09/10/2023]

<sup>29</sup> <https://www.tverc.org/cms/> [Accessed 05/10/2023]

<sup>30</sup> <https://www.gigl.org.uk/> [Accessed 05/10/2023]

<sup>31</sup> <https://www.surreywildlifetrust.org/what-we-do/professional-services/records-centre> [Accessed 05/10/2023]

<sup>32</sup> <https://www.slough.gov.uk/> [Accessed 09/10/2023]

<sup>33</sup> <http://jncc.defra.gov.uk/ProtectedSites/> [Accessed 09/10/2023]

<sup>34</sup> <https://designatedsites.naturalengland.org.uk/> [Accessed 09/10/2023]



## 'Extended' Phase I Habitat Survey and UKHabs

- A3.4. An 'extended' Phase 1/ UK Habs survey was initially carried out on the 10<sup>th</sup> October 2023 by Georgia Willmott MSc and William Wells BSc, both suitably experienced ecologists and qualifying members of CIEEM. The 'extended' Phase 1/ UK Habs survey was updated on the 8<sup>th</sup> August 2024 to include the section to the south by Georgia Willmott MSc. The methods used during the walkover survey broadly followed methods used in an 'extended' Phase I habitat survey<sup>35</sup> and entailed recording the main plant species and classifying and mapping habitat types with reference to the Habitat Definitions provided by the UK Habitat Classification Working Group<sup>36</sup>.
- A3.5. Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species. Where access allowed, adjacent habitats were also considered in order to assess the Site within the wider landscape and to provide information with which to assess possible impacts within the context of the Site boundary.
- A3.6. All habitats were assessed utilising the relevant condition criteria for the relevant habitat type under Defra's Statutory Metric, which included confirming 'pass' / 'fail' criteria taken from the UK Habs/Phase 1 methodology where necessary.

## Preliminary Bat Surveys

- A3.7. The surveys followed standard methodologies set out in the Bat Mitigation Guidelines<sup>37</sup>, the Bat Workers Manual<sup>38</sup> and Bat Surveys for Professional Ecologists- Good Practice Guidelines 4<sup>th</sup> Edition<sup>39</sup> and comprised:
- Preliminary Roost Assessment (PRA) – External and internal building inspection survey to assess potential of buildings on Site to support roosting bats;
  - Ground Level Tree Assessment (GLTA) – Ground level inspection of trees to assess potential of trees on Site to support roosting bats; and
  - Day-time Bat Walkover (DBW) – Walkover of the Sites to assess potential bat activity including foraging areas and potential commuting routes.

## Preliminary Bat Roost Assessment (PBRA)

- A3.8. A PBRA was undertaken on all buildings within the Site boundary. The assessment of B1 and B2 was undertaken on 28<sup>th</sup> August 2024 by Christian Cairns, and followed up on the 11<sup>th</sup> November 2024 for B11, B13 and B14. All surveys were daytime inspections and the conditions for all surveys was considered optimal. The location of the buildings and trees at the Site are shown on **16194/P04**. All buildings were inspected from the ground using binoculars, high powered torch, digital camera and endoscope for accessible features. In relation to buildings, such signs may

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<sup>35</sup> Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.

<sup>36</sup> Butcher, B., Carey, P., Edmons, R., Norton, L. and Trewweek, J. (2020). UK Habitat Classification – Habitat Definitions V1.1

<sup>37</sup> Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for Developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

<sup>38</sup> Mitchell-Jones, A.J. & McLeish, A.P. (eds). (2004) 3rd Edition Bat Workers' Manual., JNCC, Peterborough, ISBN 1 86107 558 8

<sup>39</sup> Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6



include bat droppings, urine splashes, staining and features suitable for allowing bats access to roost (e.g. gaps behind soffits / hanging tiles / ridge tiles, lifted slates / flashing). The internal inspection of the buildings comprised a thorough search for evidence of roosting bats in accessible loft spaces (i.e. droppings, urine stains) and an assessment of the presence of potential roosting features internally.

A3.9. The potential of the buildings and trees to support roosting bats was assessed using the criteria shown in **Table A3.1** below.

**Table A3.1:** Building / Structure Assessment Criteria - adapted from Collins, 2023.

Suitability	Description of Roosting Habitats
None	No habitat features on Site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/under-ground levels).
Negligible	No obvious habitat features on Site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost Sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost Sites do not provide enough space, shelter, protection, appropriate conditions <sup>b</sup> and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation Site, but could be used by individual hibernating bats <sup>c</sup> ).
Moderate	A structure with one or more potential roost Sites that could be used by bats due to their size, shelter, protection, conditions <sup>b</sup> and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed)
High	A structure with one or more potential roost Sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions <sup>b</sup> and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation Site.
<p><sup>a</sup> Negligible is defined as ‘so small or unimportant as to be not worth considering, insignificant’. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).</p> <p><sup>b</sup> For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.</p> <p><sup>c</sup> Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the au-</p>	



Suitability	Description of Roosting Habitats
	turn followed by mass hibernation in a diverse range of building types in urban environments. Common pipistrelle swarming has been observed in the UK and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland. This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

## Ground Level Tree Assessment (GLTA)

A3.10. A GLTA was undertaken on all trees within the Site boundary. The assessment was undertaken alongside the 'Extended' Phase I UK Habitat Surveys. All surveys were daytime inspections and the conditions for all surveys was considered optimal. The location of the trees at the Site are shown on **Plan 16194/P04**. All trees were inspected from the ground using binoculars. Potential Roosting Features (PRFs) of interest include at detailed in Table XX below.

**Table A3.2:** PRF Types that can be Exploited by Bats and How they Form - adapted from Collins, 2023.

PRFs formed by disease and decay	PRFs formed by damage	PRFs formed by association
woodpecker holes squirrel holes knot holes pruning cuts tear outs wounds cankers compression forks butt rots	lightning strikes hazard beams subsidence cracks shearing cracks transverse snaps welds lifting bark desiccation fissures frost cracks	fluting ivy

A3.11. The potential of trees to support roosting bats was assessed using the criteria shown in **Table A3.3** below.

**Table A3.3:** Assessment of Tree Suitability Criteria - adapted from Collins, 2023.

Roost Suitability	Description of Roosting Habitat
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

## Day-time Bat Walkover (DBW)

A3.12. A DBW was undertaken on all habitats within the Site boundary. The assessment was undertaken alongside the 'Extended' Phase I UK Habitat Surveys. All surveys were daytime inspections and



the conditions for all surveys were considered optimal. The DBW assessed habitats on-Site for the likelihood to be used by foraging and commuting bats as detailed in **Table A3.4.** below. This combined with desk study records of local bats and bat roosts, and potential for roosting bats on-Site is used to determine suitability of the Site for bat activity.

**Table A3.4:** Flight Path and Foraging Habits Assessment Criteria - adapted from Collins, 2023.

Suitability	Description of Roosting Habitats
None	No habitat features on Site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on Site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.  Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens.  Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge.  High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.  Site is close to and connected to known roosts.



## Bat Activity Surveys

- A3.13. Bat activity surveys were completed in accordance with best practice guidance for low suitability habitat as, which recommends one activity transect survey per season.
- A3.14. The transect route was designed to encompass areas of suitable habitat within the Site, with a focus on linear habitats such as hedgerows and lines of trees. The same transect route was used for each of the survey visits. Surveyors used a combination of visual observation and echolocation detection devices during the transect surveys to identify any bat activity on Site.
- A3.15. Each survey started approximately at sunset and ended two hours after sunset. The transect was walked at a constant speed along a planned route, recording visual and sound observations such as number of bats, flight directions and type of activity observed (e.g. commuting/foraging). The bat activity transect route is shown on the **Bat Activity Survey Plan 16194/P06**.
- A3.16. Batlogger M2 detectors were used during the activity transect surveys. Bat sound recorded from the detectors were analysed using BatExplorer software to analyse bat activity found onsite. Sound analysis was completed by competent ecologists. Weather conditions and survey timing details are displayed in **Table A3.5**.

**Table A3.5:** Bat Activity Transect Survey Metadata

Season	Visit Number	Date	Time			Cloud cover (%)		Wind (Beaufort Scale)		Temperature (C)		Precipitation		
			Start	Sunset time	End	Start	End	Start	End	Start	End			
Spring	V01	10/05/2024	20:40	20:40	22:40	10		5	2	2	19	16	Dry	Dry
Summer	V02	16/07/2024	21:11	21:11	23:11	20		100	2	2	18	17	Dry	Rain
Autumn	V03	05/10/2024	18:30	18:30	20:30	10		10	3	3	14	13	Dry	Dry



## Bat Static Detector Surveys

- A3.17. Deployment of bat static detectors were completed in accordance with best practice guidance for low suitability habitat, which recommends one deployment per season.
- A3.18. Static bat detectors were deployed for a minimum of five nights per season between May and September inclusively, with placement of four detectors to cover habitats which are suitable in supporting foraging and commuting to assess the level of bat activity onSite. Static bat detectors used was a mixture of Anabat Rangers and Anabat Swifts. The detectors were set to begin recording half an hour before sunset and to continue until half an hour after sunrise.
- A3.19. Bat sound recordings were later analysed in BatExplorer to identify calls characteristic of different bat species or group of species present. Sound analysis was then completed by an experienced ecologist.
- A3.20. Static detector survey dates and associated weather data is set out below in **Table A3.6**. Percentages of each species call recorded is set out in **Table A3.7**.

**Table A3.6:** Bat Static Detector Survey Dates and Metadata

Season	Date	Sunset Time	Sunrise Time	Wind (miles per hour)		Overnight Temperature		Precipitation
				High	Low	High	Low	
Spring	04/05/2024	20:31	05:26	6	2	16	8	Dry
	05/05/2024	20:32	05:24	4	2	15	10	Dry
	06/05/2024	20:34	05:22	6	2	15	11	Light rain all day and evening
	07/05/2024	20:36	05:21	7	3	18	10	Dry
	08/05/2024	20:37	05:19	8	4	18	11	Dry
	09/05/2024	20:39	05:17	6	2	22	13	Dry
Summer	11/07/2024	21:16	04:59	7	6	21	14	Light rain in the evening
	12/07/2024	21:15	05:01	7	6	17	13	Dry
	13/07/2024	21:14	05:02	7	6	19	13	Dry
	14/07/2024	21:13	05:03	7	4	22	16	Dry
	15/07/2024	21:12	05:04	7	4	21	15	Dry
	16/07/2024	21:11	05:05	7	5	20	15	Dry
	14/09/2024	19:18	06:37	7	5	18	10	Dry



Season	Date	Sunset Time	Sunrise Time	Wind (miles per hour)		Overnight Temperature		Precipitation
				High	Low	High	Low	
Autunm	15/09/2024	19:15	06:39	6	6	18	14	Light rain in evening
	16/09/2024	19:13	06:41	7	2	20	11	Dry
	17/09/2024	19:11	06:42	7	6	19	16	Dry
	18/09/2024	19:08	06:44	8	7	22	16	Dry

**Table A3.7:** Bat Static Detector Species Results

Season	Static Number	Number of calls recorded	Number of Species Calls (%)					
			Common pipistrelle	Soprano pipistrelle	Noctule	<i>Myotis</i> spp.	Nathusius's pipistrelle	Serotine
Spring	SL1	859	43	44	10	1	1	1
	SL2	286	35	69	1	0	0	0
	SL3	6,146	25	69	5	0	0	1
	SL4	3,379	22	61	15	1	0	1
Summer	SL1	2,864	57	39	2	1	0	1
	SL2	1,993	12	84	2	1	0	1
	SL3	6,597	19	71	6	2	0	2
	SL4	2,443	37	60	1	1	0	1
Autunm	SL1	2,050	43	49	6	1	0	1
	SL2	13,222	49	43	5	2	0	1
	SL3	644	12	27	5	55	0	1
	SL4	302	62	35	2	1	0	1



## Birds

### Breeding Bird Survey

- A3.21. Breeding bird surveys were completed by experienced bird surveyors and members of CIEEM. The transect route covered a range of habitats considered suitable for breeding birds (including grassland, hedgerows and trees). The transect routes are shown in the **Breeding Bird Survey Plan 16194/P08**. The transect was carried out four times between May and July 2024. Three of the four surveys were completed at, or soon after, sunrise and one visit was completed between midnight and dawn. This latter visit was undertaken to account for the presence of nightingale at the Site, in line with best practice guidelines<sup>40</sup>. The direction the route was walked was alternated to ensure various parts of the Site were walked at various times of the day.
- A3.22. Surveys were completed using an adapted version of the Common Bird Census (CBC)<sup>41</sup> methodology with surveyors walking the transect routes slowly whilst observing and listening to birds. Birds were identified both visually and from their songs and calls. Birds utilising the habitat adjacent to the Site boundary were also recorded where observed. Birds were recorded using standard codes set out by the British Trust for Ornithology<sup>42</sup> and breeding or nesting activity was also noted, where observed. Behaviour considered likely to indicate breeding included singing, display flights, mating and courtship displays, nesting, carrying of nesting material and birds showing fidelity to a particular area of ground or vegetation.
- A3.23. Birds seen or heard were then classified as follows according to BTO guidance<sup>43</sup>, based on survey data:
- 'Confirmed Breeder' if directly observed with active nests or carrying nest material, faecal sacs or food in suitable habitat or young birds seen or heard at a nest Site;
  - 'Probable Breeder' if observed displaying breeding behaviour (i.e. courtship or territorial behaviour in suitable breeding habitat) in or signing close to suitable nesting habitat on more than one occasion but with no active nests confirmed;
  - 'Possible Breeder' when birds did not display breeding behaviour, but were observed singing, calling or producing alarm calls in or close to suitable nesting habitat on more than one occasion; and
  - 'Non-Breeder' where birds were observed flying over the Site or considered unlikely to be breeding within the Site based on known ecology of the species (e.g. where suitable nesting habitat for the species is not present within the Site)
- A3.24. Records from all breeding bird survey visits were combined to enable visualisation of the frequency of records in specific areas, therefore enabling an estimation of breeding territories and identified of areas most frequently utilised by breeding birds, including those afforded additional

<sup>40</sup> Gilbert, G., Gibbons, D.W. and Evans, J. (1998). Bird Monitoring Methods: A Manual of Techniques for Key UK Species. RSPB

<sup>41</sup> Bibby C.J, Burgess N.G., Hill D.A. and Mustoe S.H. (2000) Bird Census Techniques. Second Edition. Elsevier Ltd.

<sup>42</sup> British Trust for Ornithology. BTO species codes [Online] Available at:

[https://www.bto.org/Sites/default/files/u16/downloads/forms\\_instructions/bto\\_bird\\_species\\_codes.pdf](https://www.bto.org/Sites/default/files/u16/downloads/forms_instructions/bto_bird_species_codes.pdf) [Accessed 20/11/2024]

<sup>43</sup> BTO Breeding evidence [Online] Available at <https://www.bto.org/our-science/projects/birdatlas/methods/breeding-evidence> [Accessed 20/11/2-24]



protection under Schedule 1 of the Wildlife and Countryside Act 1981 or Birds of Conservation Concern (BoCC).

A3.25. Breeding territories were estimated visually by combining records of where birds were confirmed breeders, probable breeders or possible breeders in QGIS and estimating the likely territories. Where several records were present in the same near vicinity, a precautionary approach of assuming only one breeding territory was taken to avoid over-estimation.

A3.26. **Table A.3.8** below displays the survey dates, timing and weather conditions for each transect route.

**Table A.3.8:** Breeding Bird Survey Metadata

Survey Visit number	Date	Time			Cloud cover (%)		Wind (Beaufort Scale)		Temperature (C)		Precipitation	
		Start	Sun-set/sun-rise time	End	Start	End	Start	End	Start	End	Start	End
1	04/05/2024	05:30	05:28	07:35	95	90	2	1	8	9	Dry	Dry
2	09/06/2024	05:05	04:46	07:30	0	0	2	3	8	11	Dry	Dry
3	23/06/2024	20:00	21:23	23:25	15	10	2	2	23	20	Dry	Dry
4	11/07/2024	05:25	04:59	08:20	0	0	3	3	14	15	Dry	Dry



## Biodiversity Net Gain

A3.27. The Statutory Biodiversity Metric operates by calculating the number of biodiversity units associated with a particular habitat type (both pre-and post-Development) – the ‘unit’ value associated with each habitat type is calculated based on the following parameters:

- Size (in hectares)/Length (in km);
- Distinctiveness (i.e. how rare/valuable a given habitat is);
- Condition (i.e. how well the recorded habitat fits [or will fit] the standardised description of that habitat); and
- Strategic significance (i.e. if the existing or proposed habitat is within an area formally adopted in the local plan for green infrastructure or biodiversity improvements).

A3.28. When considering the creation of new habitats in the post-Development Site, other factors are also considered when calculating the ‘unit’ value of a given habitat and these are:

- Time to reach the target condition of each habitat; and
- Difficulty category for the creation of a given habitat.

A3.29. A calculation has been undertaken using the baseline habitats identified during habitat condition assessment survey, which was carried out on the 19<sup>th</sup> November 2024, alongside the ‘extended’ Phase 1 survey above. All surveys were carried out by Georgia Willmott MSc, a suitably experienced ecologist.

A3.30. The UK Habitat Classification was used to identify habitat types. Note that the calculation is completed separately for non-linear and linear habitats. Habitat areas entered into The Statutory Biodiversity Metric in hectares were rounded to two decimal places.

## Evaluation

A3.31. The evaluation of habitats and species is defined in accordance with published guidance<sup>44</sup>. The scale of importance of each ecological feature is assigned within a defined geographical context, namely international and European, national, regional, county, and local. Below these are features considered to be of negligible importance.

A3.32. Consideration will also be given to legally protected or controlled species which are ‘important features’ in the context of this assessment, for which mitigation measures are required to ensure legal compliance, regardless of their geographic scale of importance. Thus, it is possible for a feature of negligible ecological importance to be legally protected and hence require mitigation.

A3.33. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include Site designations (such as Sites of Species

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<sup>44</sup> CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.



Scientific Interest (SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

## Impact Assessment

A3.34. The assessment of impacts identifies impacts and their effects as a result of the proposed Development on important ecological features. This includes consideration of impacts at all relevant stages of the Development, including construction and operation/occupation [include decommissioning and restoration, if relevant – it won't be for most projects]. The assessment includes reference to legislation and policy, and supplementary planning guidance where relevant.

## Application of Mitigation Hierarchy

A3.35. Application of the mitigation hierarchy is fundamental to the ecological impact assessment process. This requires consideration of the following measures, in order of priority, for all potential impacts, to determine the most appropriate mitigation, compensation and enhancement strategy for the project. This is taken into account within **Section 3** of this report and set out below:

- Avoidance – measures to avoid harm to ecological features (set out in 'Design Evolution', Section 3);
- Mitigation – measures to avoid or minimise potential impacts as part of the design or guaranteed by planning controls;
- Compensation – measures required to offset significant residual negative effects following avoidance and mitigation; and
- Enhancement – measures over and above requirements for avoidance, mitigation and compensation to provide biodiversity net gain.



## Appendix 4: Baseline Habitat Condition Assessments

A4.1. The following tables provide a summary of the condition assessments completed with regards to the baseline site habitats described in **Section 4**. These criteria in the below tables are taken from The Statutory Biodiversity Metric User Guide.

Table A4.1. Individual Trees (Moderate)

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	Yes	Species include hybrid black poplar, ash, field maple, common oak and hawthorn
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	Individual trees automatically meet this criterion.
C	The tree is mature (or more than 50% within the block are mature) <sup>1</sup> .	Yes	All of these trees are assessed as mature trees as in the Arboriculture Impact Assessment 16194 R02.
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	No	These trees seemed to be subject to a regular regime.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	No ecological niches were observed at the time of assessment.
F	More than 20% of the tree canopy area is over-sailing vegetation beneath.	Yes	These trees were either located in the southern section of the site where the trees are located within areas of mixed scrub and modified grassland, and to the north, also located within areas of mixed scrub
Number of criteria passed			4
Condition Assessment Result (out of 6 criteria)		Condition Assessment Score	Score Achieved ×/√
Passes 5 or 6 criteria		Good (3)	
Passes 3 or 4 criteria		Moderate (2)	2
Passes 2 or fewer criteria		Poor (1)	
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.			
Footnotes			



**Footnote 1** - See gov.uk standing advice on ancient and veteran trees. Available from: [Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](https://publishing.service.gov.uk) and: [Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

**Footnote 2** - Enhancement of this habitat type is only possible by improving the habitat so that it meets all Criteria B, D and F. It is not possible or appropriate to enhance individual tree/s through meeting just one or two of those Criteria, nor by meeting Criteria A, C or E.

Table A4.2. Individual Trees (Poor)

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	No	Species included Norway Maple and sycamore.
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	Individual trees automatically meet this criterion.
C	The tree is mature (or more than 50% within the block are mature) <sup>1</sup> .	No	All of these trees are assessed as immature trees as in the Arboriculture Impact Assessment <b>16194 R02</b> .
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Yes	At time of assessment no adverse impacts were observed via human activities.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	No ecological niches were observed at the time of assessment.
F	More than 20% of the tree canopy area is over-sailing vegetation beneath.	No	These trees are located within areas of hardstanding.
<b>Number of criteria passed</b>			<b>2</b>
<b>Condition Assessment Result (out of 6 criteria)</b>		<b>Condition Assessment Score</b>	<b>Score Achieved ×/√</b>
Passes 5 or 6 criteria		Good (3)	
Passes 3 or 4 criteria		Moderate (2)	
Passes 2 or fewer criteria		Poor (1)	<b>1</b>
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.			
<b>Footnotes</b>			
<b>Footnote 1</b> – See gov.uk standing advice on ancient and veteran trees. Available from: <a href="https://publishing.service.gov.uk">Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk)</a> and:			



[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions – GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions)

**Footnote 2** – Enhancement of this habitat type is only possible by improving the habitat so that it meets all Criteria B, D and F. It is not possible or appropriate to enhance individual tree/s through meeting just one or two of those Criteria, nor by meeting Criteria A, C or E.

Table A4.3: Modified Grassland

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	<p>There are 6-8 vascular plant species per m<sup>2</sup> present, including at least 2 forbs (these may include those listed in Footnote 1). Note – this criterion is essential for achieving Moderate or Good condition.</p> <p>Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m<sup>2</sup> (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.</p>	No	The area is dominated by perennial rye-grass with occasional number of dandelions
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No	The area of grassland is actively managed.
C	<p>Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. May be present).</p> <p>Note – patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.</p>	Yes	No ar- as of scrub was located within the habitat
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	No	Habitat is agriculturally managed with areas of damage from heavy machinery. The parcel of grassland to the north is actively used as a car park and as such



			has caused a negative impact.
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) <sup>2</sup> .	Yes	Area of bare ground is covered by grassland
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Yes	At time of observation.
G	There is an absence of invasive non-native plant species <sup>3</sup> (as listed on Schedule 9 of WCA <sup>4</sup> ).	Yes	No invasive species was observed at time of observation.
Essential criterion achieved (Yes or No)			No
Number of criteria passed			4
Condition Assessment Result (out of 7 criteria)		Condition Assessment Score	Score Achieved
Passes 6 or 7 criteria including passing essential criterion A		Good (3)	
Passes 4 or 5 criteria including passing essential criterion A		Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 – 6 criteria (excluding criterion A)		Poor (1)	1
<p><b>Footnote 1</b> – Creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>.</p> <p><b>Footnote 2</b> – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.</p> <p><b>Footnote 3</b> – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.</p> <p><b>Footnote 4</b> – Wildlife and Countryside Act 1981 (as amended).</p>			



Table A4.4: Other Neutral Grassland

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). <sup>1</sup>  Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	No	Does not consist of a high proportion of species listed in the UKHab description
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes	As this area is not actively managed, various sward height is observed.
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens <sup>2</sup> .	No	Areas of bare ground were observed.
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	No	Bramble was located throughout the area of habitat.
E	Combined cover of species indicative of suboptimal condition <sup>3</sup> and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.  If any invasive non-native plant species <sup>4</sup> (as listed on Schedule 9 of WCA <sup>5</sup> ) are present, this criterion is automatically failed.	No	Buddelia, an invasive plant species, is present in this area of habitat.
Number of criteria passed			1
Condition Assessment Result		Condition Assessment Score	Score Achieved ×/√
Acid grassland types (Result out of 5 criteria)			
Passes 5 criteria		Good (3)	
Passes 3 or 4 criteria		Moderate (2)	
Passes 2 or fewer criteria		Poor (1)	1
Notes			
<p><b>Footnote 1</b> - Professional judgement should be used alongside the UKHab description.</p> <p><b>Footnote 2</b> - For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.</p> <p><b>Footnote 3</b> - Species indicative of suboptimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>,</p>			



greater plantain *Plantago major*, white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris*. There may be additional relevant species local to the region and or site.

**Footnote 4** – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement.

**Footnote 5** – Wildlife and Countryside Act 1981 (as amended).

Table A4.5: Mixed Scrub

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). <sup>1</sup> - At least 80% of scrub is native, - There are at least three native woody species <sup>2</sup> , - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> (only in its restricted native range), or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	No	Habitat is dominated by broadleaved dock and teasel with only hybrid black poplar woody species located in some areas.
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran <sup>3</sup> ) shrubs are all present.	Yes	A range of shrub ages are present at assessment.
C	There is an absence of invasive non-native plant species <sup>4</sup> (as listed on Schedule 9 of WCA <sup>5</sup> ) and species indicative of suboptimal condition <sup>6</sup> make up less than 5% of ground cover.	No	Buddleia was located in several areas within this habitat.
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	No	No well developed edge was present at time of assessment.
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No	No clearings etc. were observed at time of assessment
Number of criteria passed			1



Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved ×/√
Passes 5 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	1
<b>Footnotes</b>		
<p><b>Footnote 1</b> – Professional judgement should be used alongside the UKHab description.</p> <p><b>Footnote 2</b> – Native woody species as defined and listed in the Hedgerow Survey Handbook: DEFRA (2007) <i>Hedgerow Survey Handbook: A standard procedure for local surveys in the UK</i>. 2nd ed. [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk).</p> <p><b>Footnote 3</b> – See gov.uk standing advice on ancient and veteran species. Available from: <a href="#">Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk)</a> <a href="#">Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)</a></p> <p><b>Footnote 4</b> – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.</p> <p><b>Footnote 5</b> – Wildlife and Countryside Act 1981 (as amended).</p> <p><b>Footnote 6</b> – Species indicative of suboptimal condition for this habitat type may include: non-native conifers, tree-of-heaven <i>Alianthus altissima</i>, holm oak <i>Quercus ilex</i>, European turkey oak <i>Quercus cerris</i>, cherry laurel <i>Prunus laurocerasus</i>, snowberry <i>Symphoricarpos</i> spp., shallon <i>Gaultheria shallon</i>, American skunk cabbage <i>Lysichiton americanus</i>, buddleia <i>Buddleja</i> spp., cotoneaster <i>Cotoneaster</i> spp., Spanish bluebell <i>Hyacinthoides hispanica</i> and hybrid bluebells <i>Hyacinthoides x massartiana</i>. There may be additional relevant species local to the region and or site.</p>		

Table A4.6: Hedgerows

Hedgerow favourable condition attributes					
Attributes and functional groupings (A, B, C, D and E)		Criteria - the minimum requirements for 'favourable condition'	Criteria description	Criterion passed (Yes or No)	Notes (such as justification)
<b>Core groups - applicable to all hedgerow types</b>					
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any	Yes	



			<p>bank beneath the hedgerow, any gaps or isolated trees.</p> <p>Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).</p> <p>A newly planted hedgerow does not pass this criterion (unless it is &gt;1.5 m height).</p>		
A2.	Width	>1.5 m average along length	<p>The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.</p> <p>Outgrowths (such as blackthorn <i>Prunus spinosa</i> suckers) are only included in the width estimate when they are &gt;0.5 m in height.</p> <p>Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).</p>	Yes	
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	<p>This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth.</p> <p>Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).</p>	No	
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	<p>This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the</p>	Yes	



			woody canopy (no matter how small).  Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).		
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow.  Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow.  This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	No	
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	No	
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA <sup>3</sup> ) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website <sup>4</sup> , as well as the BSBI website <sup>5</sup> where the 'Online Atlas of the British and Irish Flora' <sup>6</sup> contains an up-to-date list of	Yes	



			the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website <sup>7</sup> .		
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes.  This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	No	

The hedgerow condition assessment generates a weighting (score) ranging from 1 – 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees

Category	Category Requirements	Metric Score
Good	No more than 2 failures in total; <b>AND</b> No more than 1 failure in any functional group.	
Moderate	No more than 4 failures in total; <b>AND</b> <u>Does not fail both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2
Poor	Fails a total of more than 4 attributes; <b>OR</b> <u>Fails both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
Score achieved: Moderate		2

Footnotes

**Footnote 1** – DEFRA (2007) *Hedgerow Survey Handbook. A standard procedure for local surveys in the UK.* [online] Available on: [layout \(hedgelink.org.uk\)](http://hedgelink.org.uk)

**Footnote 2** – STALEY, J.T. ET AL. (2020) *Definition of Favourable Conservation Status for Hedgerows.* [online] Available on:



[Definition of Favourable Conservation Status for Hedgerows - RP2943 \(naturalengland.org.uk\)](#)

Footnote 3 – Wildlife and Countryside Act 1981 (as amended).

Footnote 4 – CHEFFINGS, C. M. et al. (2005) *The Vascular Plant Red Data List for Great Britain*. Species Status 7: 1-116. [online] Available on:

[The Vascular Plant Red Data List for Great Britain \(Species Status No. 7\) | JNCC Resource Hub](#)

Footnote 5 – BOTANICAL SOCIETY OF BRITAIN AND IRELAND (BSBI). *Definitions: wild, native or alien?* [online] Available on:

[Definitions: wild, native or alien? – Botanical Society of Britain & Ireland \(bsbi.org\)](#)

Footnote 6 – BSBI and Biological Records Centre (BRC) (2022) *Online Atlas of the British and Irish Flora*. [online] Available on:

[Acknowledgements | Online Atlas of the British and Irish Flora \(brc.ac.uk\)](#)

Footnote 7 – GB NON-NATIVE SPECIES SECRETARIAT (GBNNS) (2022) Available on:

[Home » NNS \(nonnativespecies.org\)](#)

Footnote 8 – See gov.uk standing advice on ancient and veteran trees. Available from:

[Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](#)

and

[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](#)



## Appendix 5: Post-development Habitat Condition Assessments

A5.1. The following tables provide a summary of the condition assessments completed for the post-development site habitats described in **Section 4**. These criteria in the below tables are taken from The Statutory Biodiversity User Guide.

Table A5.1 Rain Garden

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
<b>Core Criteria - must be assessed for all urban habitat types:</b>			
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	No	Areas of habitat is expected to be managed and as such vegetation structure will be limited.
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Yes	Different species of plants are expected to be incorporated.
C	Invasive non-native plant species (listed on Schedule 9 of WCA <sup>1</sup> ) and others which are to the detriment of native wildlife (using professional judgement) <sup>2</sup> cover less than 5% of the total vegetated area <sup>3</sup> .  Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Yes	It is expected that invasive non-native species will not be included in planting.
Essential criterion achieved (Yes or No)			Yes
Number of criteria passed			2
Condition Assessment Result		Condition Assessment Score	Score Achieved ×/√
<b>Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs):</b>			



<ul style="list-style-type: none"> <li>• Passes all 3 core criteria; AND</li> <li>• Meets the requirements for Good condition within criterion C.</li> </ul>	Good (3)	
<ul style="list-style-type: none"> <li>• Passes 2 of 3 core criteria; OR</li> <li>• Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C.</li> </ul>	Moderate (2)	2
<ul style="list-style-type: none"> <li>• Passes 0 or 1 of 3 core criteria.</li> </ul>	Poor (1)	
<b>Footnotes</b>		
<p><b>Footnote 1</b> – Wildlife and Countryside Act 1981 (as amended).</p> <p><b>Footnote 2</b> – Sources of information about detrimental non-native species can be found on the GB Non-native Species Secretariat (GBNNS) website: <a href="https://www.gbnns.org/">Home » NNSS (nonnativespecies.org)</a> and Natural England Access to Evidence page should also be checked for up-to-date information: <a href="https://www.naturalengland.org.uk/">Horizon-scanning for invasive non-native plants in Great Britain - NECR053 (naturalengland.org.uk)</a></p> <p>For criterion C – For green roof habitat types only – buddleia <i>Buddleja davidii</i> should be assessed alongside Schedule 9 species. This species impairs the health of the local ecosystem and reduces the biodiversity potential of the roof. It is also a sign that a roof has not been planted and seeded correctly in subsequent years.</p> <p><b>Footnote 3</b> – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.</p> <p><b>Footnote 4</b> – Use professional judgement. Sources of information about non-native species that are not detrimental to native wildlife can be found on the GBNNS website: <a href="https://www.gbnns.org/">Alternative plants » NNSS (nonnativespecies.org)</a></p>		

Table A5.2. Sustainable Drainage System (SuDS)

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
<b>Core Criteria - must be assessed for all urban habitat types:</b>			
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	No	Areas of habitat is expected to be managed and as such vegetation structure will be limited.
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Yes	Different species of plants are expected to



			be incorporated.
C	Invasive non-native plant species (listed on Schedule 9 of WCA <sup>1</sup> ) and others which are to the detriment of native wild-life (using professional judgement) <sup>2</sup> cover less than 5% of the total vegetated area <sup>3</sup> .  Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Yes	It is expected that invasive non-native species will not be included in planting.
<b>Additional Criteria - must be assessed for Bioswale and SuDS habitat types only:</b>			
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife <sup>4</sup> .	Yes	Will aim to plant native species, any non-native species will be assessed to ensure they are not detrimental to the habitat.
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.	No	Planting is expected to not only comprise of wetland flora species
Essential criterion achieved (Yes or No)			Yes
Number of criteria passed			3
Condition Assessment Result		Condition Assessment Score	Score Achieved x/√
<b>Results for Bioswale or SuDS (requiring assessment of 5 criteria - core criteria plus additional criteria specified for habitat type):</b>			
<ul style="list-style-type: none"> <li>• Passes all 3 core criteria;</li> </ul> AND <ul style="list-style-type: none"> <li>• Meets the requirements for Good condition within criterion C;</li> </ul> AND <ul style="list-style-type: none"> <li>• Passes all additional criteria relevant to specific habitat type (Group E)</li> </ul>		Good (3)	
<ul style="list-style-type: none"> <li>• Passes 3 or 4 of 5 criteria;</li> </ul> OR <ul style="list-style-type: none"> <li>• Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C.</li> </ul>		Moderate (2)	2
<ul style="list-style-type: none"> <li>• Passes 2 or fewer of 5 criteria.</li> </ul>		Poor (1)	
<b>Footnotes</b>			



**Footnote 1** – Wildlife and Countryside Act 1981 (as amended).

**Footnote 2** – Sources of information about detrimental non-native species can be found on the GB Non-native Species Secretariat (GBNNS) website:

[Home » NNS \(nonnativespecies.org\)](https://www.gbnns.org/)

and Natural England Access to Evidence page should also be checked for up-to-date information:

[Horizon-scanning for invasive non-native plants in Great Britain - NECR053 \(naturalengland.org.uk\)](https://naturalengland.org.uk/horizon-scanning-for-invasive-non-native-plants-in-great-britain-NECR053)

For criterion C – For green roof habitat types only – buddleia *Buddleja davidii* should be assessed alongside Schedule 9 species. This species impairs the health of the local ecosystem and reduces the biodiversity potential of the roof. It is also a sign that a roof has not been planted and seeded correctly in subsequent years.

**Footnote 3** – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

**Footnote 4** – Use professional judgement. Sources of information about non-native species that are not detrimental to native wildlife can be found on the GBNNS website:

[Alternative plants » NNS \(nonnativespecies.org\)](https://www.gbnns.org/alternative-plants-NNSS)

Table A5.3. Individual Trees

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	Yes	Planting will include only native species such as hybrid black poplar.
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	Individual trees automatically meet this criterion.
C	The tree is mature (or more than 50% within the block are mature) <sup>1</sup> .	No	The trees planted are not expected to be mature species.
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	No	It is expected that these trees will be subject to regular pruning.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	It is expected that no ecological niches will be present.
F	More than 20% of the tree canopy area is over-sailing vegetation beneath.	Yes	According to the post-development plans <b>16194/P04</b> , these trees will be planting in areas of grassland and scrub.
<b>Number of criteria passed</b>			<b>3</b>



Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved ×/√
Passes 5 or 6 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	2
Passes 2 or fewer criteria	Poor (1)	
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.		
<b>Footnotes</b>		
<p><b>Footnote 1</b> - See gov.uk standing advice on ancient and veteran trees. Available from: <a href="https://publishing.service.gov.uk">Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk)</a> and: <a href="https://www.gov.uk">Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)</a></p> <p><b>Footnote 2</b> - Enhancement of this habitat type is only possible by improving the habitat so that it meets all Criteria B, D and F. It is not possible or appropriate to enhance individual tree/s through meeting just one or two of those Criteria, nor by meeting Criteria A, C or E.</p>		

Table A5.4: Mixed Scrub

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). <sup>1</sup> - At least 80% of scrub is native, - There are at least three native woody species <sup>2</sup> , - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> (only in its restricted native range), or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	Yes	Planting of these habitat will only include native species as well and will be managed to ensure species are varied and not one dominating the habitat.
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran <sup>3</sup> ) shrubs are all present.	Yes	A range of shrub ages will be present.
C	There is an absence of invasive non-native plant species <sup>4</sup> (as listed on Schedule 9 of WCA <sup>5</sup> ) and species indicative of suboptimal condition <sup>6</sup> make up less than 5% of ground cover.	Yes	Only native species will be included when planting.
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	No	Developed edges are not expected and will be adjacent to other habitats



			uch as hardstanding.
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	Yes	Clearings are expected to be achieved.
Number of criteria passed			4
Condition Assessment Result (out of 5 criteria)		Condition Assessment Score	Score Achieved x/√
Passes 5 criteria		Good (3)	
Passes 3 or 4 criteria		Moderate (2)	2
Passes 2 or fewer criteria		Poor (1)	
<b>Footnotes</b>			
<p><b>Footnote 1</b> – Professional judgement should be used alongside the UKHab description.</p> <p><b>Footnote 2</b> – Native woody species as defined and listed in the Hedgerow Survey Handbook: DEFRA (2007) <i>Hedgerow Survey Handbook: A standard procedure for local surveys in the UK</i>. 2nd ed. [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk).</p> <p><b>Footnote 3</b> – See gov.uk standing advice on ancient and veteran species. Available from: <a href="https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/362222/Keepers_of_time_-_ancient_and_native_woodland_and_trees_policy_in_England.pdf">Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk)</a> <a href="https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/362222/Ancient_woodland,_ancient_trees_and_veteran_trees_advice_for_making_planning_decisions_-_GOV.UK.pdf">Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)</a></p> <p><b>Footnote 4</b> – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.</p> <p><b>Footnote 5</b> – Wildlife and Countryside Act 1981 (as amended).</p> <p><b>Footnote 6</b> – Species indicative of suboptimal condition for this habitat type may include: non-native conifers, tree-of-heaven <i>Alianthus altissima</i>, holm oak <i>Quercus ilex</i>, European turkey oak <i>Quercus cerris</i>, cherry laurel <i>Prunus laurocerasus</i>, snowberry <i>Symphoricarpos</i> spp., shallon <i>Gaultheria shallon</i>, American skunk cabbage <i>Lysichiton americanus</i>, buddleia <i>Buddleja</i> spp., cotoneaster <i>Cotoneaster</i> spp., Spanish bluebell <i>Hyacinthoides hispanica</i> and hybrid bluebells <i>Hyacinthoides x massartiana</i>. There may be additional relevant species local to the region and or site.</p>			

Table A5.6: Modified Grassland

Condition Assessment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
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A	<p>There are 6-8 vascular plant species per m<sup>2</sup> present, including at least 2 forbs (these may include those listed in Footnote 1). Note – this criterion is essential for achieving Moderate or Good condition.</p> <p>Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m<sup>2</sup> (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.</p>	Yes	Seeding will be provided by Emorsgate, or similar, which will include indicator species.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No	The habitat is expected to be actively managed.
C	<p>Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. May be present).</p> <p>Note – patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.</p>	Yes	No scrub is expected to be within this habitat
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Yes	No damaged is expected via human activities.
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) <sup>2</sup> .	Yes	Area of bare ground is expected to be covered
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Yes	At time of observation.
G	There is an absence of invasive non-native plant species <sup>3</sup> (as listed on Schedule 9 of WCA <sup>4</sup> ).	Yes	No invasive species was observed at time of observation.
Essential criterion achieved (Yes or No)			No
Number of criteria passed			6



Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	3
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 – 6 criteria (excluding criterion A)	Poor (1)	
<p><b>Footnote 1</b> – Creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>.</p> <p><b>Footnote 2</b> – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.</p> <p><b>Footnote 3</b> – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.</p> <p><b>Footnote 4</b> – Wildlife and Countryside Act 1981 (as amended).</p>		

Table A5.7: Other Neutral Grassland

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). <sup>1</sup>  Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Yes	Seeding will be provided by Emorsgate, or similar, which will include indicator species.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	No	This area is expected to be regularly managed.
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens <sup>2</sup> .	Yes	It is expected that no areas of bare ground will be present



D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Yes	It is expected that scrub will not be present within this area of habitat.
E	Combined cover of species indicative of suboptimal condition <sup>3</sup> and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.  If any invasive non-native plant species <sup>4</sup> (as listed on Schedule 9 of WCA <sup>5</sup> ) are present, this criterion is automatically failed.	Yes	It is expected that no damage will occur via human activities. Invasive non-native species are also expected to not be planted.
Number of criteria passed			4
Condition Assessment Result		Condition Assessment Score	Score Achieved ×/√
Acid grassland types (Result out of 5 criteria)			
Passes 5 criteria		Good (3)	
Passes 3 or 4 criteria		Moderate (2)	2
Passes 2 or fewer criteria		Poor (1)	
Notes			
<p><b>Footnote 1</b> - Professional judgement should be used alongside the UKHab description.</p> <p><b>Footnote 2</b> - For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.</p> <p><b>Footnote 3</b> - Species indicative of suboptimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>. There may be additional relevant species local to the region and or site.</p> <p><b>Footnote 4</b> - Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement.</p> <p><b>Footnote 5</b> - Wildlife and Countryside Act 1981 (as amended).</p>			

Table A5.8: Hedgerows

Hedgerow favourable condition attributes				
Attributes and functional groupings (A, B, C, D and E)	Criteria - the minimum requirements for 'favourable condition'	Criteria description	Criterion passed (Yes or No)	Notes (such as justification)
Core groups - applicable to all hedgerow types				



A1.	Height	>1.5 m average along length	<p>The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees.</p> <p>Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).</p> <p>A newly planted hedgerow does not pass this criterion (unless it is &gt;1.5 m height).</p>	No	
A2.	Width	>1.5 m average along length	<p>The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.</p> <p>Outgrowths (such as blackthorn <i>Prunus spinosa</i> suckers) are only included in the width estimate when they are &gt;0.5 m in height.</p> <p>Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).</p>	No	
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	<p>This is the vertical 'gap-piness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth.</p> <p>Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).</p>	No	



B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small).  Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	Yes	
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow.  Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow.  This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	No	
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	No	
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website <sup>4</sup> ,	Yes	



		WCA <sup>3</sup> ) and recently introduced species.	as well as the BSBI website <sup>5</sup> where the 'Online Atlas of the British and Irish Flora' <sup>6</sup> contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website <sup>7</sup> .		
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes.  This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	No	

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees

Category	Category Requirements	Metric Score
Good	No more than 2 failures in total; <b>AND</b> No more than 1 failure in any functional group.	
Moderate	No more than 4 failures in total; <b>AND</b> <u>Does not fail both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2
Poor	Fails a total of more than 4 attributes; <b>OR</b> <u>Fails both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
Score achieved: Moderate		1
Footnotes		



**Footnote 1** – DEFRA (2007) *Hedgerow Survey Handbook. A standard procedure for local surveys in the UK*. [online] Available on:

[hedgeline.org.uk](http://hedgeline.org.uk)

**Footnote 2** – STALEY, J.T. ET AL. (2020) *Definition of Favourable Conservation Status for Hedgerows*. [online] Available on:

[Definition of Favourable Conservation Status for Hedgerows - RP2943 \(naturalengland.org.uk\)](http://naturalengland.org.uk)

**Footnote 3** – Wildlife and Countryside Act 1981 (as amended).

**Footnote 4** – CHEFFINGS, C. M. et al. (2005) *The Vascular Plant Red Data List for Great Britain. Species Status 7: 1-116*. [online] Available on:

[The Vascular Plant Red Data List for Great Britain \(Species Status No. 7\) | JNCC Resource Hub](http://jncc.gov.uk)

**Footnote 5** – BOTANICAL SOCIETY OF BRITAIN AND IRELAND (BSBI). *Definitions: wild, native or alien?* [online] Available on:

[Definitions: wild, native or alien? – Botanical Society of Britain & Ireland \(bsbi.org\)](http://bsbi.org)

**Footnote 6** – BSBI and Biological Records Centre (BRC) (2022) *Online Atlas of the British and Irish Flora*. [online] Available on:

[Acknowledgements | Online Atlas of the British and Irish Flora \(brc.ac.uk\)](http://brc.ac.uk)

**Footnote 7** – GB NON-NATIVE SPECIES SECRETARIAT (GBNNS) (2022) Available on:

[Home » NNS \(nonnativespecies.org\)](http://nonnativespecies.org)

**Footnote 8** – See gov.uk standing advice on ancient and veteran trees. Available from:

[Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](http://publishing.service.gov.uk)

and

[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

