

# One Horton Heath: Secondary Infrastructure Road

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## Ecological Appraisal Report

Final

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## TABLE OF CONTENTS

|          |                                                                  |           |
|----------|------------------------------------------------------------------|-----------|
| <b>1</b> | <b>INTRODUCTION</b>                                              | <b>5</b>  |
| 1.1      | Background.....                                                  | 5         |
| 1.2      | Summary of Proposals .....                                       | 5         |
| 1.3      | Purpose of this Report .....                                     | 5         |
| 1.4      | Legislation and Planning Policy .....                            | 6         |
| 1.5      | Site Description and Location.....                               | 6         |
| <b>2</b> | <b>METHODOLOGY</b>                                               | <b>9</b>  |
| 2.1      | Desk Study .....                                                 | 9         |
| 2.1.1    | Data Search .....                                                | 9         |
| 2.2      | UK Habitat Classification (UKHab) Survey.....                    | 9         |
| 2.3      | Biodiversity Net Gain .....                                      | 11        |
| 2.4      | Protected Species .....                                          | 12        |
| <b>3</b> | <b>RESULTS</b>                                                   | <b>15</b> |
| 3.1      | Desk Study .....                                                 | 15        |
| 3.1.1    | Statutory Designated Sites .....                                 | 15        |
| 3.1.2    | Non-statutory Designated Sites .....                             | 16        |
| 3.1.3    | Invasive Non-native Plants .....                                 | 16        |
| 3.1.4    | Protected Species Data Records .....                             | 17        |
| 3.1.5    | Relevant Granted European Protected Species (EPS) Licences ..... | 17        |
| 3.2      | UKHab Survey.....                                                | 18        |
| 3.2.1    | Cropland – Cereal Crops c1c.....                                 | 18        |
| 3.2.2    | Modified Grassland g4 – Moderate Condition .....                 | 18        |
| 3.2.3    | Other Neutral Grassland g3c – Good Condition .....               | 18        |
| 3.2.4    | Mixed Scrub h3h – Moderate Condition .....                       | 18        |
| 3.2.5    | Other Woodland; Broadleaved – w1g7 – Good Condition .....        | 18        |
| 3.2.6    | Hedgerows .....                                                  | 19        |
| 3.3      | Protected Species .....                                          | 22        |
| 3.3.1    | Badgers.....                                                     | 22        |
| 3.3.2    | Bats.....                                                        | 22        |
| 3.3.3    | Breeding Birds .....                                             | 23        |
| 3.3.4    | Dormice .....                                                    | 23        |
| 3.3.5    | GCN and Other Amphibians .....                                   | 23        |
| 3.3.6    | Otters and Water Voles .....                                     | 24        |
| 3.3.7    | Reptiles .....                                                   | 24        |
| 3.3.8    | Hedgehogs.....                                                   | 24        |
| 3.4      | Biodiversity Net Gain (Baseline).....                            | 24        |
| 3.4.1    | Habitats.....                                                    | 24        |
| 3.4.2    | Hedgerows .....                                                  | 25        |
| <b>4</b> | <b>PROPOSED INTEGRATED AND ADDITIONAL ECOLOGICAL MEASURES</b>    | <b>26</b> |
| 4.1      | Ecological Measures .....                                        | 26        |
| 4.1.1    | Watercourses including River Itchen SAC .....                    | 26        |
| 4.1.2    | Fish (Including Atlantic Salmon) .....                           | 29        |
| 4.1.3    | SINCs and Habitats.....                                          | 29        |
| 4.1.4    | Invasive Non-native Species .....                                | 30        |
| 4.1.5    | Badgers.....                                                     | 31        |
| 4.1.6    | Bats.....                                                        | 31        |

|                                                    |                                                |    |
|----------------------------------------------------|------------------------------------------------|----|
| 4.1.7                                              | Birds .....                                    | 32 |
| 4.1.8                                              | Dormice .....                                  | 33 |
| 4.1.9                                              | Amphibians (including GCN) and Reptiles .....  | 33 |
| 4.1.10                                             | Otters .....                                   | 34 |
| 4.2                                                | Biodiversity Net Gain (Post-development) ..... | 35 |
| 4.2.1                                              | Habitats.....                                  | 35 |
| 4.2.2                                              | Hedgerow Habitats.....                         | 35 |
| 4.2.3                                              | Headline Results .....                         | 35 |
| 4.2.4                                              | Off-Setting.....                               | 36 |
| 5                                                  | ASSESSMENT OF LIKELY RESIDUAL EFFECTS .....    | 37 |
| 5.1                                                | Habitats .....                                 | 37 |
| 5.2                                                | Badgers .....                                  | 39 |
| 5.3                                                | Bats .....                                     | 39 |
| 5.4                                                | Breeding Birds.....                            | 39 |
| 5.5                                                | Dormice.....                                   | 39 |
| 5.6                                                | GCN and Other Amphibians.....                  | 39 |
| 5.7                                                | Otter and Water Vole.....                      | 39 |
| 5.8                                                | Reptiles.....                                  | 39 |
| 6                                                  | CONCLUSIONS .....                              | 40 |
| APPENDIX A – LEGISLATION AND PLANNING POLICY ..... |                                                | 41 |

# 1 INTRODUCTION

## 1.1 BACKGROUND

Eastleigh Borough Council has commissioned Johns Associates Ltd to conduct an Ecological Appraisal that draws on a range of biodiversity survey and design details, to support the assessment and reporting of the potential effects from the One Horton Heath – Reserved Matters Planning application for the Secondary Infrastructure Road and associated footpaths, cycleways and Sustainable Drainage System (SuDS) basins (the Proposed Development).

This report has drawn on historic and contemporary ecological data from desk studies and field surveys. The information used included an extended UKHab Survey of the site and Phase 2 ecological surveys for badger *Meles meles*, bats, birds, dormouse *Muscardinus avellanarius*, great crested newt (GCN) *Triturus cristatus*, otter *Lutra lutra*, water vole *Arvicola amphibius* and reptiles. A Biodiversity Net Gain (BNG) assessment of the current and proposed habitats has been calculated using Defra Metric 4.0 to provide a standardised assessment of the change in habitats resulting from the Proposed Development.

## 1.2 SUMMARY OF PROPOSALS

The proposed development has been designed in full accordance with the Development Plan and Outline Planning Application (OPA) O/20/89498, which has a resolution to grant consent subject to S106 negotiations relating to education. This application is for full planning consent due to the time for these negotiations to complete. Submitting details of the Secondary Infrastructure Road (SIR) as a full planning application will deliver the SIR in accordance with, and as part of the OPA, but enable commencement more quickly than waiting for the resolution of the OPA S106 and the determination of an application for Reserved Matters Approval of details of the SIR.

The application represents the next stage in the Councils commitment to deliver an “infrastructure first” development that will best meet the needs of existing and future residents. The Proposed Development associated with this application is for the construction of a Secondary Infrastructure Road and associated footways, cycleways and SUDS basins at One Horton Heath (hereafter referred to as ‘the Site’).

## 1.3 PURPOSE OF THIS REPORT

The key objectives of this Report are to:

- Provide an ecological baseline for the Site.
- Identify the likely key ecological constraints and opportunities associated with the proposed development.
- Set out mitigation or compensation measures.
- Set out ecological enhancement measures at the site through consultation and agreement with statutory bodies.
- Assess the likely effects from the scheme on biodiversity, taking into account the mitigation/compensation and enhancement measures proposed.

## 1.4 LEGISLATION AND PLANNING POLICY

Appendix A provides the full legislation, national planning policy and local planning policy that applies to the habitats and species associated with the Proposed Development.

## 1.5 SITE DESCRIPTION AND LOCATION

The Proposed Development is associated with an existing compacted stone/soil track associated with a solar farm, agricultural fields; typically associated with cattle grazing and arable crop production, together with hedgerows and lines of trees, mixed scrub, a small section of woodland, a seasonally wet ditch and both modified and other neutral grassland.

Figure 1 illustrates the planning application boundary associated the Proposed Development (the Site) whilst Figure 2 provides an illustrative view of how the Proposed Development will sit within the overall OHH masterplan, once fully implemented.

Figure 1: Site Location within OPA Boundary

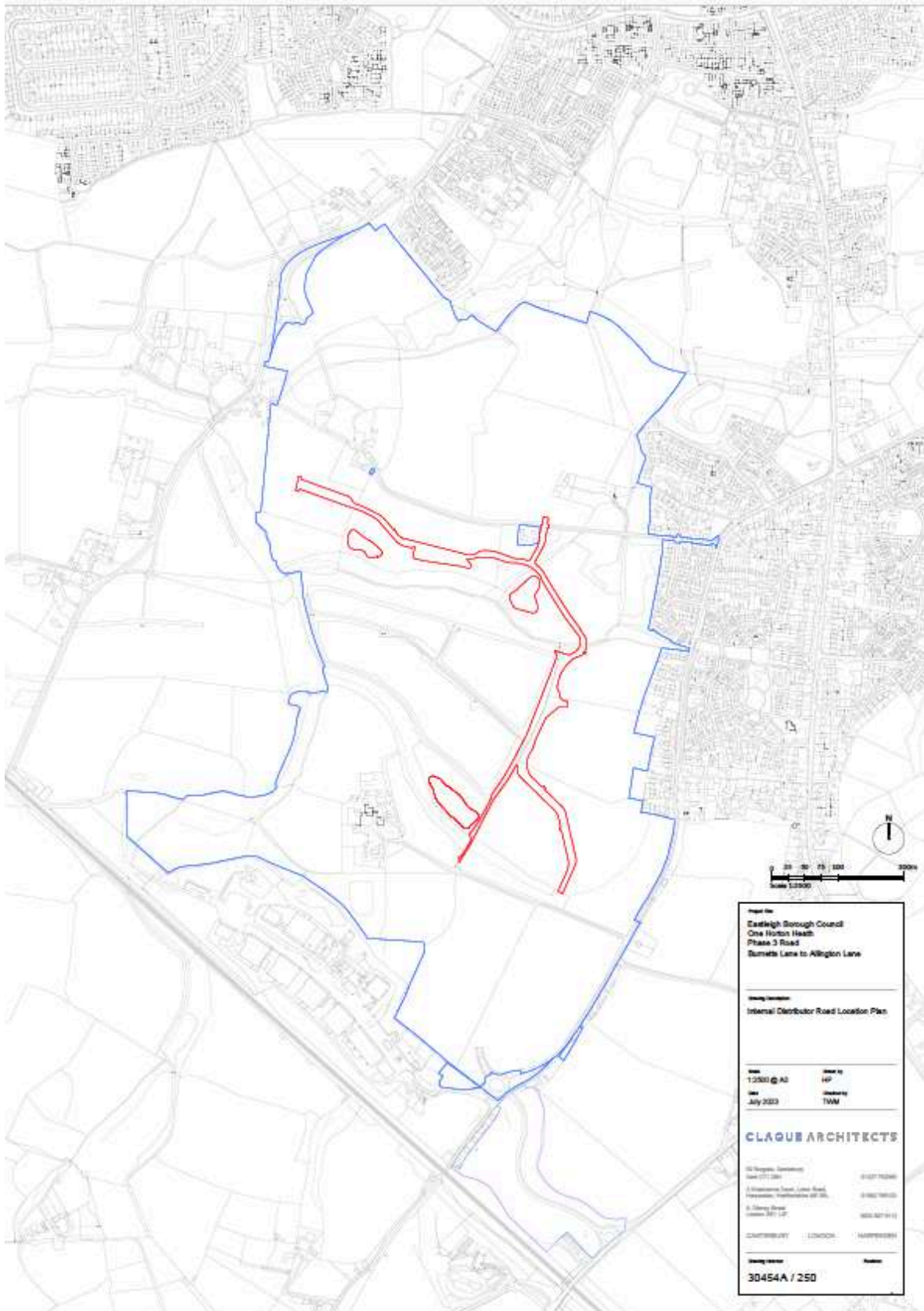


Figure 2: Site Location within the Wider OHH Masterplan



## 2 METHODOLOGY

### 2.1 DESK STUDY

The desk study collates relevant existing information relating to the Site and its surrounding area. The data is used to assist with developing the scope and design of any further surveys (if required) and to enable a full assessment of the ecological constraints and opportunities at the Site. The following sources have been used as appropriate:

- Multi Agency Geographic Information for the Countryside (MAGIC) website. Records and citations to a 2 km buffer for national designated sites, a 10 km buffer for international designated sites, 10 km for sites designated for bats ([www.gov.uk](http://www.gov.uk), [www.designatedsites.naturalengland.org.uk](http://www.designatedsites.naturalengland.org.uk)), priority habitats and EPS licences for notable species to 2 km, including a 500 m buffer radius for great crested newt (GCN) *Triturus cristatus* and GCN ponds ([www.magic.co.uk](http://www.magic.co.uk)). Search made on 2 August 2023.
- Records and citations for designated sites<sup>1</sup>;
- Google Maps<sup>2</sup>; and
- Ordnance Survey maps<sup>3</sup> to identify any ponds within 500 m of the Site, along with the presence of any significant barriers to the migration of great crested newt from these ponds to the Site itself.

The following strategic documents for Eastleigh were also reviewed with reference to the habitats and species present, or likely to be present, within or adjacent to the site:

- Rushbrook, B (2018) Southern Damselfly Survey and Habitat Assessment Study, Eastleigh Borough.
- Eastleigh Borough Council (2018) Eastleigh Borough Local Plan 2016-2036. Great Crested Newt Study
- The Highwood Group and Drew Smith Group (2017) Strategic Eastleigh Site Bat Trapping and Radio-tracking Baseline Report and Evaluation
- Eastleigh Borough Council (2012) Biodiversity Action Plan for Eastleigh Borough 2012 – 2022.

#### 2.1.1 Data Search

A detailed review of biodiversity records from the Hampshire Biodiversity Information Centre (HBIC) was carried out for the main outline planning permission O/20/89498 in March 2020.

Existing non-statutory designated site information and records of notable and protected species were obtained from within the wider site boundary and a 2km buffer. This ecological information was sourced from the Hampshire Biodiversity Information Centre (HBIC) in October 2018 and update in March 2020.

### 2.2 UK HABITAT CLASSIFICATION (UKHAB) SURVEY

The on-Site habitats were originally surveyed by Johns Associates using the Phase 1 Habitat Survey method (JNCC, 2010) in 2022, but were re-surveyed in March 2023 and updated through a further walkover survey in July 2023. This information

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<sup>1</sup> [www.gov.uk](http://www.gov.uk), [www.designatedsites.naturalengland.org.uk](http://www.designatedsites.naturalengland.org.uk)

<sup>2</sup> [www.maps.google.com](http://www.maps.google.com)

<sup>3</sup> [www.ordnancesurvey.co.uk](http://www.ordnancesurvey.co.uk)

allowed the re-classification to UK Habitat Classification (UKHab) (2020) guidelines<sup>4</sup>, which provides a more detailed interpretation of baseline habitat survey data than previous habitat classifications systems, such as Phase 1 Habitat Assessments.

The professional edition of UKHab "UK Habitat Classification – Professional Edition<sup>5</sup>" (UKHab-P) was used which includes Priority Habitat Types, all Annex 1 Habitats and the habitats listed in EUNIS. The classification of primary habitats is hierarchical with five levels, which include terrestrial/freshwater/marine, ecosystem types, broad habitats, priority habitats and Annex 1 habitats.

Habitat types were assigned a primary code to a hierarchical level of at least three, and secondary codes were used to further clarify the habitat and record additional information linked to the primary habitat such as habitat management. The full range of secondary codes following UKHab-P were used, which are grouped under the following headings of which the first three listed are considered mandatory sections;

- Habitat Mosaics (10 - 18)
- Habitat Complexes (19 – 32)
- Origin (33 – 49)
- Management (51 – 85)
- Land Use (86 – 116)
- Environmental Qualifier (117 – 138)
- Species Feature (139 – 166)
- Hydrological Regime (167 – 199)
- Green Infrastructure (200 – 1232) - The Green Infrastructure section is numbered from 200 upwards. As this section is hierarchical, the first level of the GI hierarchy goes up in hundreds (200, 300 etc.), the second in tens (210,220 etc.) and the third in ones (211, 212 etc).

Where appropriate, maps are supplemented with target notes which provide specific information on habitats present that are too limited in extent to map at the scale at which data is presented, or the presence of species and habitats of ecological interest.

An annotated habitat map together with descriptions of the recorded habitat types was produced, which was subsequently digitized using a geographical information system (ArcGIS). The survey also included identification of any non-native invasive plant species. Flora taxonomy follows the nomenclature detailed in New Flora of the British Isles (4th Edition) (Stace C. , 2019). Flora<sup>6</sup>, where appropriate, are given a descriptive score of abundance using the DAFOR scale, as follows:

- D – Dominant
- A – Abundant

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<sup>4</sup> UK Habitat Classification (UKHab) (2020) guidelines

<sup>5</sup> Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). The UK Habitat Classification User Manual Version 1.1 at <http://www.ukhab.org/>

<sup>6</sup> New Flora of the British Isles, Edition 4, Clive A. Stace, 2019. CM's Corportion Floristics

- F – Frequent
- O – Occasional
- R – Rare
- L – Locally (to be used as a prefix for any of the above)
- V – Very (to be used as a prefix for any of the above)

#### 2.2.1.1 ArcGIS Symbology

At the time of production, a complete symbology for all habitats in the UK Habitat Classification Professional Edition (UKHab-P) was not available. The UK Habitat Classification Basic Edition (UKHab-B) symbology has therefore been used, and where necessary to add in habitats not included in UKHab-B we have designed our own hatching system within the Level 2 colours for those habitats – following the guidance provided in the UK Habitat Classification Basic Edition: Suggested Symbology for Maps document (UKHab, 2020).

#### 2.2.1.2 Minimum Mapping Units

UKHab guidance indicated that UKHab has 3 Minimal Mapping Units (MMU's):

- 25m<sup>2</sup> and 5m length for urban and small-scale development projects, fine scale mapping of designated sites
- 400m<sup>2</sup> and 20m length for landscape scale surveys
- 2500m<sup>2</sup> for larger unenclosed upland habitats.

Large scale, simple habitats or feasibility surveys should use a larger MMU. For this project, given the size of the site and the scale of the map the smallest recommended MMU has been applied. This will allow all habitats to be clearly visible on the map whilst enabling enough fine detail to remain to clearly show all habitats present.

Where appropriate, maps are supplemented with target notes which provide specific information on habitats present that are smaller than the MMU, or the presence of species and habitats of ecological interest.

### 2.3 BIODIVERSITY NET GAIN

The Defra Biodiversity Metric 4.0 provides a nationally measurable structured calculation methodology to account for biodiversity losses and gains resulting from development or land management change. The Biodiversity metric 4.0 uses habitat, the places in which species live, as a proxy to describe biodiversity. These habitats are converted into measurable 'biodiversity units'. These biodiversity units are the 'currency' of the metric. Individually, they are referred to as 'habitat units' for area-based habitats, 'hedgerow units' for linear habitats, and 'river units' for watercourses.

Biodiversity units are calculated using the size of a parcel of habitat and its quality. The metric uses habitat area as its core measurement, except for linear habitats where habitat length is used. To assess the quality of a habitat the metric scores habitats of different types, such as woodland or grassland, according to their relative biodiversity value. Habitats that are scarce or declining typically score highly relative to habitats that are more common and widespread. The metric also takes account of the condition of a habitat. The metric accounts for the location of the habitat relative to other similar habitats to measure its connectedness in the landscape. Being 'better' and 'more joined-up' are important facets of habitats that can contribute to halting and reversing biodiversity declines. Lastly, the metric also accounts for whether or not the habitat is sited in an area identified locally, typically in a relevant policy of plan, as being of significance for

nature.

Where new habitat is created, or existing habitat is enhanced the difficulty and associated risks of doing so are taken into account by the metric. If habitat is created to compensate for losses elsewhere, then the metric also takes account of its proximity to the impact site. The metric incentivises delivery that is on or close to the impact site.

The Defra Metric 4.0 Biodiversity score has been calculated for the existing habitats at the Site and for the habitats proposed within the masterplan. The site was split into distinct habitat parcels and linear habitats based on the UKHab system, which were then mapped and measured using the ArcGIS mapping tool.

The area or length of each habitat type (henceforth known as 'habitats' for area-based habitats, 'hedgerows' for linear habitats, and 'rivers' for watercourses) was entered into the Calculation Tool along with the condition and strategic significance (informed by the desk study) in order to obtain the baseline (i.e. existing) value of each in biodiversity units. This process was repeated for the post-development habitats to be retained, enhanced and/or newly created.

BNG is an approach to development that seeks to halt the current loss of biodiversity through development and through the planning system; restore ecological networks through early masterplanning and increase the natural habitat resource and ecological features. This has been included within the Environment Act 2021, and a mandatory requirement for development to enhance the ecological value of a site by a minimum of 10% will come into force in November 2023.

A separate Biodiversity Net Gain report has been prepared for this application by Johns Associates (Internal Distributor Road BNG Assessment, August 2023). The BNG report will be updated pending finalisation of the landscaping plans, and this report updated accordingly.

## 2.4 PROTECTED SPECIES

The UKHab and subsequent July 2023 walkover survey was 'extended' to re-assess the suitability of habitats to support legally protected and/or notable species, including (but not limited to) badger, birds, bats, dormouse, GCN and other amphibians, otter, water vole and reptiles. This assessment included recording visible signs of species presence and/or habitat features that may indicate likely presence.

This survey was completed in accordance with the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2013)<sup>7</sup> and BS 42020:2013 Biodiversity - Code of practice for planning and development<sup>8</sup>.

An extensive range of detailed (Phase 2) faunal surveys have been completed across the entire One Horton Heath Site, including the locations associated with the Proposed Development including up to 2022. Update walkover inspections have been undertaken by Johns Associates in 2022 and 2023 (most recently in July 2023) to confirm that the ecological baseline documented in the Environmental Statement associated with planning permission O/20/89498 remains correct, and there are no grounds for requiring additional investigations.

Table 1 overleaf highlights the surveys undertaken to date which are relevant to the Site, and conclusions made about their ongoing validity.

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<sup>7</sup> CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

<sup>8</sup> The British Standards Institution (2013) BSI Standards Publication BS 42020:2013 Biodiversity – Code of Practice for Planning and Development

Table 1 OHH Ecology Survey Review

| Species/ Group/ Survey Type                                                                   | Dates of Surveys                                                                                                                                                                                                                          | Update Surveys Required? | Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Phase 1 Habitat survey/ UKHab survey                                                 | July/August 2018;<br>August 2019;<br>July/August 2020;<br>October 2020 (part);<br>July 2023                                                                                                                                               | No                       | An updated walkover survey has been conducted of the wider OHH site, including the Secondary Infrastructure Road and GI areas, in Sept 2022 and July 2023 (Update Survey 1). This has established whether there are any significant differences in baseline habitats since previous surveys and provide comments on current land management practices. It has also provided updated information on fields signs or potential for protected species such as badgers and otters. |
| River Habitats and Fish Habitats                                                              | July 2020                                                                                                                                                                                                                                 | No                       | No changes to site layout or management. Update Survey 1 has assessed any changes and concluded that previous results remain valid for 2023.                                                                                                                                                                                                                                                                                                                                   |
| Biodiversity Net Gain (BNG) habitat condition assessments/ MoRPh5 river condition assessments | July 2023;<br>August 2023                                                                                                                                                                                                                 | Yes                      | MoRPh5 river condition assessment survey is required to be extended.                                                                                                                                                                                                                                                                                                                                                                                                           |
| Badger surveys                                                                                | November 2018;<br>September 2019;<br>September 2020;<br>September 2022;<br>July 2023                                                                                                                                                      | No                       | Badgers are notorious for moving into areas relatively quickly. [REDACTED] tt<br>[REDACTED]<br>[REDACTED] The Update Survey 1, has surveyed for any new badger activity across the site and concluded that previous results remain valid for 2023.                                                                                                                                                                                                                             |
| Bat Activity Surveys (transects and automated detector surveys, radio tracking, trapping)     | Transects July to October 2018, April to June 2019, May 2020;<br>Radio tracking summer 2020;<br>Trapping Aug 2018, Aug 2020                                                                                                               | No                       | No changes to site layout or management. Update Survey 1 has assessed any changes and concluded that previous results remain valid for 2023.                                                                                                                                                                                                                                                                                                                                   |
| Bat crossing point surveys                                                                    | June to September 2019 and June to September 2020                                                                                                                                                                                         | No                       | No changes to site layout or management. Update Survey 1 has assessed any changes and concluded that previous results remain valid for 2023.                                                                                                                                                                                                                                                                                                                                   |
| Roosting bat surveys: trees                                                                   | Tree emergence surveys August/ September 2020;<br>Tree climbing inspections of moderate or high potential trees Oct 2020;<br>Ground based assessment updated Dec 2021;<br>Quobleigh crossing alders inspected and resurveyed spring 2022. | No                       | No changes to site layout or management. Update Survey 1 has assessed any changes and concluded that previous results remain valid for 2023 and are not relevant to this application.                                                                                                                                                                                                                                                                                          |

| Species/ Group/ Survey Type  | Dates of Surveys                                                                                                                                                       | Update Surveys Required? | Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bird surveys                 | April to June 2020 (breeding bird surveys);<br>April to July 2020 (barn owl surveys)                                                                                   | No                       | No changes to site layout or management. Update Survey 1 has assessed any changes and concluded that previous results remain valid for 2023.                                                                                                                                                                                                                                                                                                                                                               |
| Dormouse surveys             | July to November 2018;<br>August to November 2020 and in 2022.                                                                                                         | No                       | A dormouse licence has been granted for the Link Road severance of Foxholes Wood. This included consideration of other parts of the connected woodland including the application site. The Natural England licensing process concluded that only the Link Road location needed to be subject to dormouse EPS licensing. Data remains valid for 2023. Dormouse has never been found to be present in the vicinity/habitat associated with the Secondary Infrastructure Road and associated GI working area. |
| GCN                          | Habitat Suitability Index (HSI) May 2019;<br>Presence/absence and population class May-June 2019;<br>Presence/absence May-June 2021;<br>Presence/absence May-June 2022 | No                       | No changes to the wider site layout or management. The updated 2023 site visits have assessed any changes and concluded that previous results remain valid for 2023 and are not relevant to this application.                                                                                                                                                                                                                                                                                              |
| Otter and water vole surveys | September/October 2018;<br>July 2020                                                                                                                                   | No                       | No changes to site layout or management. Update Survey 1 has assessed any changes and concluded that previous results remain valid for 2023                                                                                                                                                                                                                                                                                                                                                                |
| Reptile surveys              | September 2018;<br>September 2020                                                                                                                                      | No                       | No changes to site layout or management. Update Survey 1 has assessed any changes and concluded that previous results remain valid for 2023.                                                                                                                                                                                                                                                                                                                                                               |

No protected species licences are required for the construction/operational aspects of the Secondary Infrastructure Road. A robust Ecological Precautionary Method of Working will be followed.

## 3 RESULTS

### 3.1 DESK STUDY

Please refer to the Environmental Statement associated with planning permission O/20/89498 for the full results.

#### 3.1.1 Statutory Designated Sites

There are five statutory designated sites of international importance within 10km of the Site. Further information is presented in the table below. A plan showing the locations of these statutory sites is contained in Appendix A.

Table 2: Statutory Sites of International Importance

| Site Name                                                  | Reason for Designation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Location Relevant to Wider Site Boundary |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Solent and Southampton Water Special Protection Area (SPA) | <p>This site qualifies under <b>Article 4.1</b> of the Birds Directive (79/409/EEC) by supporting breeding populations of European importance of the following species listed on Annex I of the Directive: common tern, little tern, Mediterranean gull, roseate tern, sandwich tern.</p> <p>This site also qualifies under <b>Article 4.2</b> of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory over-wintering species: black-tailed godwit, dark-bellied brent goose, ringed plover, teal.</p> <p>The area also qualifies under <b>Article 4.2</b> of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4.3 km south east                        |
| Solent and Southampton Water Ramsar Site                   | <p>The site is designated under the following Ramsar criteria:</p> <p>Criterion 1: The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs</p> <p>Criterion 2: The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site.</p> <p>Criterion 5: supports a species assemblage in the winter of international importance (assemblage of wintering waterfowl).</p> <p>Criterion 6: supports species populations of international importance (migratory ringed plover; and wintering black-tailed godwit, teal and dark-bellied brent geese).</p>                                                                                         | 3.9 km south east                        |
| River Itchen Special Area of Conservation (SAC)            | <p>Supports the following Annex I habitats that are a primary reason for designation: Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation. The Itchen is a classic example of a sub-type 1 chalk river. The river is dominated throughout by aquatic <i>Ranunculus</i> spp. The headwaters contain pond water-crowfoot <i>Ranunculus peltatus</i>, while two <i>Ranunculus</i> species occur further downstream: stream water-crowfoot <i>R. penicillatus</i> ssp. <i>pseudofluitans</i>, a species especially characteristic of calcium-rich rivers, and river water-crowfoot <i>R. fluitans</i>.</p> <p>Supports the following Annex II species which are a primary reason for selection of this site: Southern damselfly <i>Coenagrion mercuriale</i>. The River Itchen comprises one of the major population centres in the UK for this species. It also represents a population in a managed chalk-river flood plain, an unusual habitat for this species in the UK, rather than on heathland Bullhead <i>Cottus gobio</i>. The Itchen is a classic chalk river that supports high densities of this</p> | 1.5km north west                         |

| Site Name | Reason for Designation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Location Relevant to Wider Site Boundary |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
|           | <p>species throughout much of its length. The river provides good water quality, extensive beds of submerged plants that act as a refuge for the species, and coarse sediments that are vital for spawning and juvenile development.</p> <p>The site also supports the following Annex II species present as qualifying features but not as primary reasons for site selection:</p> <p>White-clawed crayfish <i>Austropotamobius pallipes</i><br/> Brook lamprey <i>Lampetra planeri</i><br/> Atlantic salmon <i>Salmo salar</i><br/> Otter <i>Lutra lutra</i></p> |                                          |

There is one statutory designated sites of national importance within the Zone of Influence (Zol) of the Site. Further information is presented below.

Table 3: Statutory sites of national importance

| Site name         | Reason for designation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Location relevant to the Site |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| River Itchen SSSI | <p>This site is notified for classic chalk stream and river, fen meadow, flood pasture and swamp habitats, particularly formations of in-channel vegetation dominated by water crowfoot <i>Ranunculus</i> spp, riparian vegetation communities (including wet woodlands) and side channels, runnels and ditches associated with the main river and former water meadows. The site supports nationally important invertebrate assemblages; and is also notified for the assemblage of breeding birds including tufted duck <i>Aythya fuligula</i>, pochard <i>A. ferina</i> and shoveler <i>Anas clypeata</i>, the waders lapwing <i>Vanellus vanellus</i>, redshank <i>Tringa totanus</i> and snipe <i>Gallinago gallinago</i>, and wetland passerines including sedge warbler <i>Acrocephalus schoenobaenus</i>, reed warbler <i>A. scirpaceus</i> and Cetti's warbler <i>Cettia cettia</i>.</p> <p>See Table 1 above for other SSSI notification features.</p> | 1.5km north west              |

### 3.1.2 Non-statutory Designated Sites

There is one non-statutory designated site within the Zol of the Proposed Development. Further information is presented in the table below.

Table 4: Non-statutory designated sites

| Site name           | Reason for designation                                                                                                                                                                                                                                                        | Location relevant to the Site |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Treeline Break SINC | <p>Treeline Break is a narrow strip of ancient semi-natural woodland, situated in a small and quite deeply incised stream valley, on the north-western edge of the new solar farm, south of Allington Lane, Eastleigh. 18 ancient woodland indicators were recorded here.</p> | 200m south-east               |

### 3.1.3 Invasive Non-native Plants

No invasive non-native plants have been recorded within the Site, however, several species including Japanese

knotweed *Reynoutria japonica*, Himalayan balsam *Impatiens glandulifera*, and rhododendron *Rhododendron ponticum* are known to be present across the wider site.

#### 3.1.4 Protected Species Data Records

The desk study conducted for the 2020 Environmental Statement returned records of the following relevant faunal species and groups within 2km of the wider site:

- Badger;
- Bats (several species);
- Birds (several species);
- Dormouse;
- GCN;
- Common toad *Bufo bufo*;
- Otter;
- Water vole;
- Slow worm *Anguis fragilis*;
- Grass snake *Natrix helvetica*;
- Common lizard *Zootoca vivipara*;
- Hedgehog *Erinaceus europaeus*.

Records of other species were also returned but have been scoped out of this assessment because of being extremely unlikely to be present on Site, having no suitable habitat within the Site boundary, or there being no requirement for compensation or mitigation relating to the species for this application. Please refer to the Environmental Statement associated with planning permission O/20/89498 for the full results.

#### 3.1.5 Relevant Granted European Protected Species (EPS) Licences

A dormouse licence (EPSL 2022-62953-EPS-MIT) was granted in February 2023 and was associated with the construction of the main Link Road associated with One Horton Heath and a small dormouse population located within the central woodland immediately south of the Site. The historic and recent dormouse survey data for this part and the whole of the OHH site was taken into account with respect to the extent of licensable works which concluded that only location of the main Link Road required EPS licensing.

A Great Crested Newt Licence (2022-62944-EPS-MIT-1) was granted in March 2023 and is associated with the construction of the main OHH Link Road as it runs in proximity to a breeding pond associated with a small population of great crested newt at Chalcroft Farm. The licence and associated method statement and supporting information concluded that the population is highly unlikely to extend beyond the road corridor to the east, utilising much more favourable habitat to the west and north of the pond at Chalcroft Farm. Previous terrestrial surveys undertaken by Johns Associates, including under precautionary method statements for the relocation of part of the nearby solar farm, did not find any evidence of great crested newt.

## 3.2 UKHAB SURVEY

See Figure 3 below for a map of the Site showing baseline habitats.

### 3.2.1 Cropland – Cereal Crops c1c

Maize *Zea sp.* crops are grown in the central section of the Site (C2, C3). The fields had narrow margins which are retained un-ploughed, up to a width of 1m at the base of hedges.

### 3.2.2 Modified Grassland g4 – Moderate Condition

F22 is either heavily cattle-grazed or subject to regular topping; and fertiliser or manure are regularly applied. The sward is dominated by common and competitive grass species, with a small diversity of forb species which are tolerant of nutrient-enriched and disturbed soils. Typical species within this community include perennial rye-grass *Lolium perenne*, creeping bent *Agrostis stolonifera* and Yorkshire fog *Holcus lanatus*. Forb species present at low frequency and abundance include curled dock *Rumex crispus*, creeping thistle *Cirsium arvense*, ribwort plantain *Plantago lanceolata* and white clover *Trifolium repens*.

F26 had a varied sward height at the time of survey. Species recorded included hard rush *Juncus inflexus*, hairy sedge *Carex hirta*, common nettle *Urtica dioica*, dandelion *Taraxacum officinale* agg., marsh thistle *Cirsium palustre* and tufted hair-grass *Deschampsia cespitosa*.

F33 comprised moderate grassland/species poor semi-improved grassland in 2020. In general, poor semi-improved grassland was dominated by common and competitive grass species, with a small diversity of forb species which are tolerant of nutrient enriched and disturbed soils. Abundant grass species comprised perennial rye-grass, creeping bent and Yorkshire fog. Forb species present include locally frequent hairy sedge *Carex hirta*, curled dock *Rumex crispus* and creeping thistle *Cirsium arvense*, and occasional ribwort plantain *Plantago lanceolata*, yarrow *Achillea millefolium*, common fleabane *Pulicaria dysenterica* and white clover *Trifolium repens*.

F13, F30 and F31 were dominated with perennial rye grass with frequent dandelion and white clover, occasional cock's foot *Dactylis glomerata* and broadleaved dock *Rumex obtusifolius* rare in abundance. The sward height was not varied.

### 3.2.3 Other Neutral Grassland g3c – Good Condition

Land within F27 comprised a dry shallow ditch within species poor marshy grassland where management has been abandoned and the sward is becoming tall and rank with species such as hemlock-water dropwort *Oenanthe crocata* becoming dominant. The ditch was deemed likely to hold water at wetter times of year. Species recorded included common sorrel *Rumex acetosa*, marsh bedstraw *Galium palustre*, creeping buttercup *Ranunculus repens*, soft rush *Juncus effusus*, Yorkshire fog and common nettle.

### 3.2.4 Mixed Scrub h3h – Moderate Condition

The wet ditch/depression is situated beneath dense willow *Salix sp.* scrub growth (S1). The dense scrub supports a number of fallen willows with growth from the horizontal trunks and fallen dead trees.

### 3.2.5 Other Woodland; Broadleaved – w1g7 – Good Condition

Broadleaved semi-natural woodland, with a woodbank at the northern boundary. The canopy is dominated by oak *Quercus robur* with frequent ash *Fraxinus excelsior*. The woodland is unmanaged, with a sparse understorey of grey willow *Salix cinerea* and hazel *Corylus avellana* in places and in others dominated by bramble *Rubus fruticosus* agg.. Ground flora is largely species-poor and dominated by nettle with locally frequent remote sedge.

The woodland slopes down to a shallow depression running through the centre of the habitat approximately 20cm depth and 1m width. This was largely dry at the time of survey with the exception of isolated pools but is thought likely to hold running water at times of high rainfall. The stream bed is largely free of vegetation with an orange precipitate on the surface and heavily shaded by the overhead canopy. Lesser pond sedge *Carex acutiformis* is present at low abundance.

### 3.2.6 Hedgerows

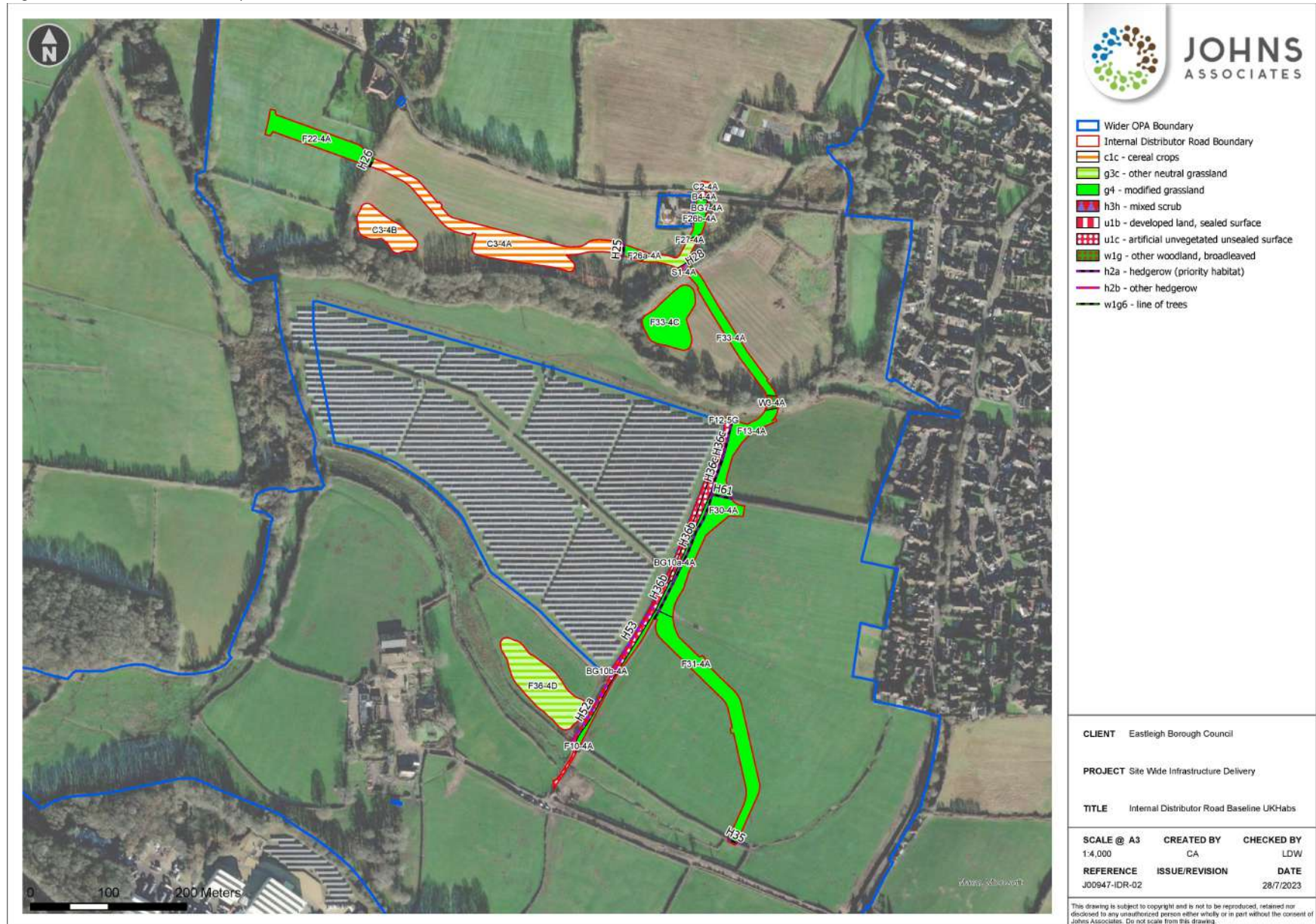
The hedgerows with either their entire or partial lengths within the red line boundary of the Site are described in Table 5 below.

Table 5: Hedgerows within the Site

| Hedgerow Number | Classification (Condition)                                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H25             | Species-rich native hedgerow (Poor)                                     | An outgrown hedge, with the most abundant woody species comprising hazel, English elm and hawthorn. Oak, rose, dogwood, ash, field maple and blackthorn are also present. Ground flora is species poor with locally abundant stands of bracken. The hedgerow reaches 5m height, and 1m width.                                                                                                                                                                                            |
| H26             | Line of trees (Moderate)                                                | This hedgerow is similar in character to H25 in species composition, although supports a greater proportion of standard mature oak and ash trees. The hedgerow reaches approximately 5m height in general.                                                                                                                                                                                                                                                                               |
| H28             | Line of trees – associated with bank or ditch (Moderate)                | A lack of management had resulted in an outgrown hedge of mostly mature standard trees and large shrubs. Woody species include oak, ash, blackthorn, bramble, broom <i>Cytisus scoparius</i> and holly <i>Ilex aquifolium</i> . The hedgerow was situated upon a small bank with an associated small ditch. The ground flora was species poor. Evidence of management in the past by hedge laying was evident.                                                                           |
| H35             | Species-rich native hedgerow – associated with bank or ditch (Poor)     | Woody species present include rose, hawthorn, bramble, wild plum, blackthorn, oak, holly and hazel. Although a range of woody species were present, this hedgerow was heavily defunct through disturbance from cattle. Thickly grown limbs were indicative of likely significant age of the hedge, despite its poor condition. The hedgerow was flailed to a height of 3m and a width of 1m. Bracken dominated patches were present on the road-side of the hedgerow at its eastern end. |
| H36a            | Species-rich native hedgerow – associated with bank or ditch (Moderate) | The most frequent woody species included blackthorn, hawthorn and willow. Additional species included bramble, ash, hazel, rose and field maple. The hedge was flailed to a height of 3m and a width of 1m and was situated upon a small bank.                                                                                                                                                                                                                                           |
| H36b            | Species-rich native hedgerow – associated with bank or ditch (Poor)     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| H36c            | Species-rich native hedgerow – associated with bank or ditch (Poor)     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| H52a            | Species-poor native hedgerow (defunct) (Poor)                           | Remnant hedge which is defunct and outgrown at the base. The hedgerow is flailed to a width of 1m. Species present include bramble, blackthorn and dog rose.                                                                                                                                                                                                                                                                                                                             |
| H53             | Species-poor native hedgerow (defunct) (Poor)                           | Hedgerow contained both mature and recently planted sections. The recently planted section was approximately 20m in length and adjacent to the solar farm. Tree guards were present, and shrubs were growing to a height of 1.5m. The mature hedgerow was composed of dog rose, hazel and hawthorn. The hedgerow was flailed to a height of 2m and is gappy at the base.                                                                                                                 |

|     |                                                                         |                                                                                                                                                                                                                                                               |
|-----|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H61 | Species-rich native hedgerow – associated with bank or ditch (Moderate) | Hedgerow with woody species including bramble, blackthorn, rose, hawthorn, ash and hazel. The hedgerow was situated upon a small bank and was managed by flailing to a height of 3m and a width of 1m. The hedgerow was dense but gappy at the base in places |
|-----|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Figure 3: Baseline UKHab Map



### 3.3 PROTECTED SPECIES

Please refer to the detailed ecological baseline set out with the separate Environmental Statement and subsequent Addendums relating to planning permission O/20/89498.

#### 3.3.1 Badgers

No evidence of badger (including setts) has been recorded from any of the walkover surveys of the Site conducted by Johns Associates since 2017, including the 2022 and 2023 update surveys. Despite this, badgers are known to be able to move into areas relatively quickly, and the habitats on Site represent a potential foraging resource for the species. Mitigation will therefore be required for this species.

#### 3.3.2 Bats

Ground level tree assessments carried out by Johns Associates and reported on in 2020 and updated in 2023 did not find any potential roost features associated with trees to be removed as part of the Proposed Development. The adjacent woodland does contain trees with suitability for roosting bats, so woodland protection/management and adoption of a suitably sensitive lighting scheme is necessary for the Proposed Development.

Bat activity and automated detector surveys have been completed across the wider site by Johns Associates and reported on in 2020. No change in habitat condition that would suggest any notable variation in the baseline recorded has occurred. Common pipistrelle *Pipistrellus pipistrellus* was the most frequently recorded species within the Site, followed by soprano pipistrelle *P. pygmaeus*. In total nine species of bat were recorded during the activity and automated surveys recorded across the wider site. These showed the wider presence of noctule *Nyctalus noctula*, Nathusius' pipistrelle *P. nathusii*, Daubenton's *Myotis daubentonii*, Natterer's *M. nattereri*, brown long-eared *Plecotus auritus*, serotine *Eptesicus serotinus* and barbastelle *Barbastella barbastellus* (very low levels of activity). A number of bats, including more light sensitive species are known to forage and commute along/associated with habitats within the Proposed Development Site, notably the hedgerows and woodland.

Following the Bat Mitigation Guidelines 2023 the species assemblage score at the Site is provided in Table 6 below. The total score is 19 which does not meet the County Importance Threshold Score of 20.

Table 6 Assessment of Bat Species Assemblage

| Species               | Rarity                                                     | Score | Total Score |
|-----------------------|------------------------------------------------------------|-------|-------------|
| Barbastelle           | Rarest Annex II species and very rare                      | 4     | 19          |
| Serotine              | Rarer or restricted distribution                           | 3     |             |
| Nathusius pipistrelle | Rarer or restricted distribution                           | 3     |             |
| Natterer's            | Widespread in many geographies, but not as abundant in all | 2     |             |
| Noctule               | Widespread in many geographies, but not as abundant in all | 2     |             |
| Daubenton's           | Widespread in many geographies, but not as abundant in all | 2     |             |
| Brown long-eared      | Widespread                                                 | 1     |             |
| Soprano pipistrelle   | Widespread                                                 | 1     |             |
| Common pipistrelle    | Widespread                                                 | 1     |             |

### 3.3.3 Breeding Birds

Johns Associates have carried out breeding bird surveys across the wider Horton Heath Site in 2020. The species associated with the Site were: chiffchaff *Phylloscopus collybita*, wood pigeon *Columba palumbus*, blackcap *Sylvia atricapilla*, chaffinch *Fringilla coelebs* and whitethroat *Sylvia communis*. Given the proposed loss of nesting habitat, mitigation will be required for these species.

### 3.3.4 Dormice

Habitat enhancement and management for the single known population of dormouse located to the south of the Site is being implemented as part of EPS licence EPSL 2022-62953-EPS-MIT associated with the main OHH Link Road. There is only a minimal amount of suitable habitat (woodland and hedgerows) within the Site boundary which is connected to the woodland to the south. Given the very small amount of habitat being removed, and the low number of records of dormouse in the woodland, it is highly unlikely that dormouse are present within the Site. However, a precautionary approach will be adopted, and mitigation will therefore be required for this species.

### 3.3.5 GCN and Other Amphibians

Johns Associates has undertaken great crested newt population size class assessment surveys of ponds associated with One Horton Heath since 2017 (most recently 2022), building on earlier surveys. These continue to conclude that only the pond located at Chalcroft Farm (small population) and ponds offsite in the most northerly part of the OHH site currently support great crested newt. The terrestrial habitats associated with the Proposed Development do not constitute high value habitats for GCN. The OHH proposals aim to introduce more favourable terrestrial habitats and a network of new great crested newt and wildlife ponds elsewhere, together with SuDS ponds to support the growth of the two populations. Consequently, it has been demonstrated and concluded under EPS licence 2022-62944-EPS-MIT-1 that it is highly unlikely that great crested newt will be present within the footprint of the Proposed Development. However, a precautionary approach will be adopted, and mitigation will be required for this species.

It is likely that other amphibians such as common toad are present within hedgerows and woodland within the Site

boundary, therefore mitigation will be required for this group.

### 3.3.6 Otters and Water Voles

No evidence of the presence of otter or water vole has been found within the Site boundary and its associated ditch, despite records of water vole being present on Site in the past (see ES). This includes the updated walkover survey of the Site in 2023. However, due to their history of association with the wider site, a precautionary approach will be adopted for these species, and mitigation will be required.

### 3.3.7 Reptiles

The most recent surveys carried out in 2020 confirmed very low numbers of slow worm and grass snake within the Site. As such, it is reasonable to conclude that small numbers of common reptiles remain present. Mitigation will therefore be required for this group.

### 3.3.8 Hedgehogs

No evidence of hedgehog has been recorded from any of the walkover surveys conducted by Johns Associates since 2017, including all of the nocturnal surveys. Despite this, hedgehogs are notoriously under-recorded and it is reasonable to assume that low numbers of the species are present on Site given the presence of suitable habitats, and the records returned for the previous data search. Mitigation will therefore be required for this species.

## 3.4 BIODIVERSITY NET GAIN (BASELINE)

The tables below detail the specific area-based and linear habitat types associated with the Site, with their relative conditions and baseline unit values. Full details can be found in the associated BNG report prepared by Johns Associates (August, 2023 – to be updated).

### 3.4.1 Habitats

Table 7: Summary of baseline assessment for area-based habitats

| Broad Habitat       | Habitat                      | Distinctiveness | Area (Ha) | Condition | Units |
|---------------------|------------------------------|-----------------|-----------|-----------|-------|
| Urban               | Sealed surface/ hardstanding | V. Low          | 0.0170    | N/A       | 0.00  |
|                     | Bare ground                  | Low             | 0.3742    | Poor      | 0.75  |
| Cropland            | Cereal crops                 | Low             | 1.0037    | N/A       | 2.00  |
| Grassland           | Modified grassland           | Low             | 0.2822    | Poor      | 0.61  |
|                     |                              |                 | 1.9759    | Moderate  | 7.95  |
|                     | Other neutral grassland      | Medium          | 0.5458    | Moderate  | 5.02  |
|                     |                              |                 | 0.0900    | Good      | 1.19  |
| Heathland and Shrub | Mixed scrub                  | Medium          | 0.0114    | Moderate  | 0.10  |
| Woodland and Forest | Other woodland; broadleaved  | Medium          | 0.0253    | Good      | 0.35  |
| Totals              |                              |                 | 4.3255    |           | 18.46 |

### 3.4.2 Hedgerows

Table 3: Summary of baseline assessment for linear habitats

| Linear Habitat                                                          | Distinctiveness | Length (km)  | Condition | Units       |
|-------------------------------------------------------------------------|-----------------|--------------|-----------|-------------|
| Lines of trees – associated with bank or ditch                          | Low             | 0.029        | Moderate  | 0.13        |
| Species-rich native hedgerow - associated with bank or ditch            | High            | 0.260        | Poor      | 1.62        |
|                                                                         |                 | 0.199        | Moderate  | 2.63        |
| Species-rich native hedgerow with trees – associated with bank or ditch | V. high         | 0.035        | Moderate  | 0.62        |
| Species-rich native hedgerow                                            | Medium          | 0.023        | Poor      | 0.10        |
| Native hedgerow                                                         | Low             | 0.219        | Poor      | 0.46        |
| <b>Totals</b>                                                           |                 | <b>0.765</b> |           | <b>5.55</b> |

## 4 PROPOSED INTEGRATED AND ADDITIONAL ECOLOGICAL MEASURES

### 4.1 ECOLOGICAL MEASURES

All works will be implemented in accordance with the site wide OHH Ecological Mitigation and Management Strategy (EMMS) prepared for Eastleigh Borough Council by Johns Associates in 2022. A specific Ecological Mitigation and Management Plan (EMMP) for the Proposed Development will be secured and implemented through an appropriately worded planning condition. This will include the following broad principles as required by the site wide EMMS.

Specific measures associated with habitats and species within the Proposed Development Site are set out below.

#### 4.1.1 Watercourses including River Itchen SAC

##### 4.1.1.1 Constraint

Prevention of sediment discharge into streams and SAC maintenance of water quality.

##### 4.1.1.2 Sensitive Period

All times.

##### 4.1.1.3 Actions

Full details of construction measures set out in relevant CEMP. See also measures for fish (Atlantic salmon) below.

The Environmental Permitting (England and Wales) Regulations 2016 require a permit or exemption to be obtained for any construction activities which will take place on or within 8 metres of a non-tidal main river. Ordinary Water Course Consent will need to be obtained for other water course crossings/works. These are issued by the Lead Local Flood Authority (Hampshire County Council). Works in close proximity to watercourses present a particularly high risk of water pollution, especially through the mobilisation of sediments.

Retention, protection and restoration of watercourses and associated riparian corridors including bankside and in channel enhancement measures, promoting reconnection with the floodplain and Stage 0 features, delivered in accordance with a detailed long-term water features management plan. All watercourses will be protected by a 10m ecological buffer (excluding SUDS connections and ecological improvements) with an associated 10-50m green infrastructure corridor (measured from the bank edge of water limit when watercourse is full i.e. bankfull). This buffer will be enhanced with appropriate habitat management and habitat creation measures that complement and enhance the watercourses.

Early inclusion of SuDS to promote on-site attenuation of surface waters emerging from the OHH area to enable long-term high quality wetland/watercourse habitats, promoting physical habitat diversity, reconnection to the floodplain and Stage 0 headwater processes, to ensure no further downstream mobilisation of soil/riverine sediment and nutrients and to provide ecologically valuable natural filtration features within the development such as wetland areas reed beds etc that is above and beyond the net zero nutrient and sediment emission measures described in above.

A robust water quality monitoring regime of all SUDS basins and flows into/out of the One Horton Heath Site (including sediments, turbidity, conductivity, pH, nitrates and phosphates) will be implemented to provide feedback on the efficacy

of net zero nutrient/sediment (including SuDS) treatment measures and to inform a responsive system of remedial management works to ensure that the long-term function of these features is maintained.

Phased delivery of development and associated reduction in nutrient inputs as agricultural activities cease and zero/low nutrient/sediment input/output activities start. This will include interim land use change to reduce existing nutrient levels from the soil to reduce duration of legacy release from soils to water once agricultural activities cease.

CEMP measures:

- Sediment control:
  - Control of sediment and runoff will be managed in accordance with the principles set out in the CIRIA SuDs Manual;
  - Installation temporary sediment basins/traps/settlement ponds and/or early construction of the permeant SuDs features will be undertaken before any earthworks begin;
  - Haul roads will be designed to minimise and control run-off including temporary surfacing and temporary drainage to intercept sediment laden run-off and wetting of surfaces during periods of dry weather;
  - Run-off control measures to divert run-off around areas being excavated will be installed in conjunction with sediment basins/silt traps;
  - The contractor will minimise the amount of land disturbed at any time to reduce the potential for run-off to enter water courses (phasing);
  - The use of methods including, retaining grass and vegetation for as long as possible, in disturbed areas, controlling erosion via the use of straw bale barriers, geotextile silt fences and sediment basins (with regular clearing out of excess sediment off-site) and ensuring that the runoff from the disturbed area passes through sediment control systems before discharge will be required;
  - De-watering operations – water pumped out of excavations generally carries a heavy sediment load and should never be discharged direct into watercourses. It should be routed first through features that will allow sediment to be filtered out and settle out;
  - Working in or on the banks of watercourses presents a high risk of significant sediment mobilisation and challenges in intercepting it and capturing it once mobilised. The Contractor must consider the temporarily diversion of watercourses around work sites;
  - Worked areas should be finished and vegetation established as soon as works are complete and the area/time ground is left bare and disturbed should be minimized;
  - All discharge of water into local watercourses will be in line with relevant Environment agency licenses and permits;
  - All sediment controls will be set out in the Contractors Construction phase plan and will be subject to weekly checks.
- Dealing with silty or contaminated water:
  - Silt, including fine silt or other contaminated water must not be allowed to enter watercourses and ditches. The water courses in this area feed into the River Itchen, a European Special Area of

Conservation for wildlife. Pollution of the watercourses could have significant environmental and ecological impact;

- There is a potential for significant silt and run-off from the construction works and storage areas, (which slope down towards the drainage ditches) to enter watercourses and ditches;
  - The Principal Contractors plan their work to contain any contamination, for example, bunding, the use silt barriers/geotextile fencing or alternative effective measures to prevent this occurring;
  - Contaminated water can arise from excavations, exposed ground, stockpiles, plant and wheel washing, concrete mixing, or other construction activities;
  - Catch-pits or silt traps on drains will be used to remove suspended solids such as mud and silt to prevent contaminated water entering surface water drains, surface waters or ground waters, or draining onto the land;
  - Wheel washing locations need to be identified away from watercourses and ditches. Before wheel washing takes place, checks will be carried out to ensure that sediment traps and measures to prevent run-off and the transmission of hydrocarbons/salt/invasive plant seeds are in place during cleaning. These must be checked and emptied and at regular intervals;
  - Adequate provision for dealing with silty water is to be agreed in advance. Any planned discharges off the site will require prior approval with the appropriate authorities;
  - All washings from cement and other cleaning processes must be contained within the site and removed via tanker or other appropriate means to prevent discharge into the local environment;
  - All contaminated water must be removed from site and adequately treated prior to discharge under the appropriate permits and licences.
- Stream/watercourse diversions:
    - Temporary damming/dewatering or rerouting of watercourses will be required for the installation of bridge and walkway. All works which will impact the immediate environment and any European Protected Species (EPS) will be undertaken in accordance with the method statement reviewed and agreed with the OHH Ecologist and all relevant license conditions.
- Installation of drainage and SuDS features:
    - Temporary SuDs and/or early installation of the permanent SuDs features will be implemented to prevent silt contamination of high-risk watercourses;
    - During construction of the sewers and infrastructure the likelihood of any contamination being caused is slim, however all machines are well serviced and will be fueled via diesel station located within the compound facilities that will have the appropriate raised blockwork surround with plastic lining to help prevent spillages;
    - If there are spillages whilst a machine is onsite, then this can be addressed using the locally located spill kits to prevent any further contamination within the soil. There will also be the appropriate skips for waste materials etc. that will be delivered on a call-off basis to prevent over filling.

#### 4.1.2 Fish (Including Atlantic Salmon)

##### 4.1.2.1 Constraint

Surface water runoff into watercourses (n.b. on site water course is ephemeral and of very limited suitability for fish species. Effects are largely limited to downstream habitats).

##### 4.1.2.2 Sensitive Period

Construction and operation.

##### 4.1.2.3 Actions

The development will not result in a net increase in fine sediments ('fines') reaching the River Itchen SAC resulting in adverse effects on Atlantic salmon.

Construction phase mitigation: Sediment run-off can be particularly severe during the land clearance, surface contouring and groundworks construction phases, where soils are exposed. It is a particular risk during storms/times of high rainfall. Measure to address sediments are set out in the Construction Environmental Management Plan (CEMP). These include:

- Phasing and timings: no works should occur during periods of heavy rainfall events. Consideration should be given to timings of ground works close to watercourses to avoid sensitive spawning periods for Atlantic salmon (avoid key spawning period of November- December);
- Installation of temporary SuDS where strategic SuDS features cannot be implemented or not yet effective (e.g. before vegetation establishment which can typically take up to 3 years);
- Plans to deal with erosion from flow 'escapes' during heavy and extreme rainfall events – e.g. biodegradable netting (erosion 'blankets') along ditch/swale/wetland edges before vegetation has established";
- The measures to be used during the development in order to minimise environmental impacts of the works (considering impacts such as potential disturbance, noise and vibration, lighting, pollution, water quality impacts, storage of fuels and chemicals, sediment and silt control, hydrological regime changes).

#### 4.1.3 SINC's and Habitats

##### 4.1.3.1 Constraint

Light sensitive and nocturnal species.

##### 4.1.3.2 Sensitive Period

Construction and operation.

##### 4.1.3.3 Actions

The zone between 15-50m from the habitat boundary will be subject to the following restricted uses and constraints:

- Footpaths;

- Cycleways;
- SuDS;
- Biodiversity enhancement permitted;
- Minimal additional lighting so this does not compromise ecological function.

Ecological buffer subject to the specifications as described above will be implemented between the link road and the woodland to protect the habitat and to ensure that root protection areas are respected.

Where the removal or severance of woodland is unavoidable, compensatory native species rich planting will occur in accordance with the prescriptions agreed with Eastleigh Borough Council. Woodland management and monitoring will be implemented from the start of the project delivery process if not before to maximise habitat value, structure and longevity, including the control of non-native invasive species. A woodland management plan will be prepared and implemented for all woodlands.

Hedgerows with mature trees at regular intervals will have a 15m buffer (measured from tree stems).

Hedgerows without mature trees or only occasional trees will have a minimum 5m ecological buffer (plus RPA around any mature trees to be retained) measured from the centre line of the hedgerow.

These buffers will be subject to the following constraints:

- No excavation (except SuDS, respecting RPAs);
- No construction related activities or activities likely to have negative effect on habitat;
- Biodiversity Enhancement permitted.

All hedgerows will be managed for biodiversity in accordance with a long-term management plan, including new planting to infill gaps in hedgerows and ongoing high-quality management.

#### 4.1.4 Invasive Non-native Species

##### 4.1.4.1 Constraint

N/A - not known to be present.

##### 4.1.4.2 Sensitive Period

Construction.

##### 4.1.4.3 Actions

Precautionary update surveys to reconfirm absence of these species. If found to be present an invasive species management plan will be implemented to control any populations of Japanese knotweed, Japanese rose, Himalayan balsam, variegated yellow archangel, rhododendron, mink and other non-native species.

Construction activity should not cause the spread of any invasive species and specialist contractors should be employed to control and deal with invasive species, where required.

#### 4.1.5 Badgers

##### 4.1.5.1 Constraint

Foraging habitat present.

##### 4.1.5.2 Sensitive Period

All times.

##### 4.1.5.3 Actions

Precautionary surveys will continue to ensure any new setts or re-activated setts are taken into account in the construction programme. Should it be necessary, Natural England badger licences will be sought to ensure legal compliance in terms of disturbance of any setts and any requirements for exclusions/sett closure/provision of artificial setts. Deep excavations will be covered at night or suitable mammal ladders/earth maps will be provided to allow large mammals including badger to exit excavations.

See 'Otters' below in relation to mammal tunnel and ledges under new bridges.

#### 4.1.6 Bats

##### 4.1.6.1 Constraint

Habitat severance (section of woodland and hedgerows) and risk of collision at road crossing points.

##### 4.1.6.2 Sensitive Period

Spring to Autumn.

##### 4.1.6.3 Actions

Locations where the road severs higher value foraging and connective habitat.

- Minimising habitat loss in these areas by designing the road approach to the habitat in a perpendicular orientation
- Minimising the width of the road crossing
- Incorporation of suitable measures to ensure safe crossing following the most recent research into the efficacy of such measures to minimise road collision mortality.
- Sensitive design of any lighting that may be required in these areas.
- Additional compensatory habitat may be required.
- Significant vegetation will be retained either side of the construction areas in these locations.

##### 4.1.6.4 Constraint

Loss/degradation of foraging habitat (section of woodland and hedgerows removed).

#### 4.1.6.5 Sensitive Period

Spring to Autumn.

#### 4.1.6.6 Actions

The loss of foraging habitat across the site has been minimised through the retention of key high value habitats. These habitats will be protected and enhanced, with connectivity between these habitat areas and potential roost sites maintained both across the site and the wider landscape through the measures to protect these specific habitats.

#### 4.1.7 Birds

##### 4.1.7.1 Constraint

Breeding birds - potential nesting habitat present throughout the Site.

##### 4.1.7.2 Sensitive Period

Breeding season (March to August inclusive).

##### 4.1.7.3 Actions

No vegetation clearance within bird nesting season. Habitats requiring works during the nesting season (1<sup>st</sup> March-31<sup>st</sup> August inclusive) will be subject to a pre-works nesting bird check with measures implemented to protect any active nests likely to be affected by the works. Where areas of suitable nesting habitat for valued bird species is lost, suitable alternative nesting habitat will be provided on site through a network of bird boxes features incorporated to mature trees, new tree and shrub planting and enhanced grassland, woodland, wetlands.

##### 4.1.7.4 Constraint

Bird hazard management plan – new planting/open water.

##### 4.1.7.5 Sensitive Period

Construction and operation.

##### 4.1.7.6 Actions

Control of construction drainage and earth works during the construction phase should ensure that wide areas of permanent open water do not develop which can attract geese, gulls and wading species.

If necessary, bare loose soil should be compacted to reduce its suitability for bird species.

The timing of all significant earthworks, particularly topsoil spreading and grading, shall be notified to the airport (Airfield Operations) in advance and scheduled, where possible, at times of lower flying activity.

Grass seeding should be done in phased sections if the area to be seeded is larger than 150m<sup>2</sup> rather than all at once.

Intervals between discrete blocks should ideally be in the order of 3 days. This will produce staggered germination, reducing the amount of seed available to pigeons, reducing the area affected at any one time and allowing better deployment of passive deterrent measures.

Blocks of ground where construction work has been completed shall be reinstated or covered and re-seeded (where applicable) at the earliest opportunity.

Waste control and disposal for the Site, including food waste, should be controlled to avoid the build-up of scavenging bird species such as gulls and corvids. Waste should be placed in covered skips and bins to reduce risk.

See Bird Hazard Management Plan (Johns Associates 2023).

#### 4.1.8 Dormice

##### 4.1.8.1 Constraint

Section of woodland and hedgerow removed.

##### 4.1.8.2 Sensitive Period

April to November inclusive.

##### 4.1.8.3 Actions

Completion of works under a Precautionary Method Statement to include Ecological Clerk of Works supervision, ecological toolbox talk and adopting PTES guidance (Managing Small Woodlands for Dormice) with woodland/hedgerow vegetation removal between December to March.

Avoidance of hedgerow or woodland severance within 150m of confirmed records of dormouse was recommended in the Environmental Statement associated with planning permission O/20/89498. The points at which the SIR intersects H25, H28 and H26 are within 100, 115m and 138m retrospectively of the known dormouse records within the central woodland.

It is considered highly unlikely that dormouse is present within the construction and operational areas associated with the Proposed Development. Taking this into account alongside the scheme design and the specific measures set out in Section 4.1, it is considered reasonable to control that the scheme will result in neutral and non-significant effect to dormouse.

The lighting scheme has been designed to preserve a dark corridor at the woodland and H28 crossing points. Where possible, the vegetation either side of the road will be allowed to grow tall to provide an aerial crossing point for dormice.

#### 4.1.9 Amphibians (including GCN) and Reptiles

##### 4.1.9.1 Constraint

Suitable habitat and refugia present.

##### 4.1.9.2 Sensitive Period

Hibernation (November to February inclusive).

#### 4.1.9.3 Actions

Vegetation management works within areas of suitable habitat, should be carried out within the active season for reptiles (March-October inclusive) to avoid the disturbance of hibernating animals which are unable to move away from the development area. No removal of suitable refuge habitat will be undertaken when overnight temperatures are consistently (for five consecutive nights) below 5°C, to remove the risk of disturbing hibernating reptiles.

An ecological toolbox talk will be delivered prior to any works. Prior to the commencement of works the working footprint will be agreed and demarcated on site to include vehicle access areas, material storage, skip and materials handling areas associated with the demolition works. This working footprint will be minimised and designed with the contractor to avoid any unnecessary impacts on suitable reptile habitats. Where suitable habitats are present within the agreed works area, a two phased cut of any habitat considered it be suitable for reptiles, such as tussocky grass, will be conducted to prepare the working area. The first cut will be to approximately 15cm in order to encourage any reptiles present to move out of the area. The area will then be left to settle and a subsequent cut to 5cm will follow. A suitably qualified ecologist will lift and remove any potential refugia from within the working area. The vegetation will then be cut to be maintained in an unsuitable condition for the duration of works.

Prior to the movement of any machinery into the working area, a check by a suitably qualified ecologist will be carried out to ensure no animals are likely to be harmed.

If reptiles or amphibians are found at any stage of the vegetation clearance works, they will be encouraged to move away of their own accord into the surrounding retained habitat. Should great crested newt be found, then the project ecologists, Johns Associates will be contacted for further advice.

#### 4.1.10 Otters

##### 4.1.10.1 Constraint

Watercourse crossings.

##### 4.1.10.2 Sensitive Period

All times.

##### 4.1.10.3 Actions

Watercourse road crossing points locations to be designed to facilitate continuation of hydrological regime and landscape permeability for terrestrial mammals including otter. Mammal crossings will be included where provision for mammal access cannot be incorporated along the stream at water level.

10m minimum construction buffer to all watercourses (other than crossing points). Use of well serviced plant and adoption of best practice standards for noise/vibration. No illumination of watercourse corridors from construction and minimal operational lighting. Ongoing monitoring for otter during the construction period to enable methods to be adapted if detected.

Watercourse restoration using best practice measures (e.g. as defined by the UK River Restoration Centre) to increase physical habitat diversity, reconnect to the floodplain, increase light levels to the channel and riparian corridor and maximise species diversity, controlling non-native species.

## 4.2 BIODIVERSITY NET GAIN (POST-DEVELOPMENT)

The following calculations are based on Secondary Road Landscape Proposals Sheets 1-5 of 6 (dwg. DD579L40-R3, DD579L41-R3, DD579L42-R3, DD579L43-R3, and DD579L44-R3 by Deacon Design, 08/12/2023). The landscape and ecological plan comprises retainment of existing area-based habitats, enhancement of existing habitats and also newly created habitats.

### 4.2.1 Habitats

Table 4 below details the specific habitat types, their proposed conditions and unit values.

Table 4: Summary of post-development assessment for area-based habitats

| Broad Habitat Type  | Habitat                                                                            | Distinctiveness | Area (Ha) | Condition | Units |
|---------------------|------------------------------------------------------------------------------------|-----------------|-----------|-----------|-------|
| Urban               | Sealed surface/ hardstanding                                                       | V. low          | 2.0638    | N/A       | 0.00  |
| Grassland           | Modified grassland                                                                 | Low             | 0.6165    | Moderate  | 2.18  |
|                     | Other neutral grassland                                                            | Medium          | 0.0597    | Moderate  | 0.40  |
|                     |                                                                                    |                 | 0.3884    | Good      | 3.55  |
| Heathland and shrub | Mixed scrub                                                                        | Medium          | 0.0300    | Moderate  | 0.22  |
| Lakes               | SuDS                                                                               | Medium          | 0.2001    | Moderate  | 1.61  |
| Wetland             | Fens                                                                               | V. high         | 0.9605    | Good      | 3.00  |
| Woodland            | Other woodland; broadleaved                                                        | Medium          | 0.0065    | Good      | 0.09  |
| Individual trees    | Urban trees (equivalent of 78 small trees along the Secondary Infrastructure Road) | Medium          | 0.3176    | Moderate  | 0.97  |
| Totals              |                                                                                    |                 | 4.3255*   |           | 12.02 |

\* Total shown excludes additional area of individual trees.

### 4.2.2 Hedgerow Habitats

Table 5 below details the specific hedgerow types, their proposed conditions and unit values.

Table 5: Summary of post-development assessment for linear habitats

| Linear Habitat Type                                          | Retained/ Enhanced/ Created? | Distinctiveness | Length (km) | Condition | Units |
|--------------------------------------------------------------|------------------------------|-----------------|-------------|-----------|-------|
| Species-rich native hedgerow – associated with bank or ditch | Enhanced                     | High            | 0.428       | Good      | 7.83  |
| Native hedgerow                                              |                              | Low             | 0.219       | Moderate  | 0.88  |
| Species-rich native hedgerow                                 | Created                      | Medium          | 0.177       | Moderate  | 1.18  |
| Totals                                                       |                              |                 | 0.386       |           | 9.90  |

### 4.2.3 Headline Results

As demonstrated in Table 6, the biodiversity net gain results show an overall net gain in hedgerows, and a net loss in habitats. The trading rules have been satisfied for hedgerows but not for habitats.

Table 6: Summary of biodiversity net gain assessment before offsetting

| Unit Type | Baseline Units | Post-development Units | Net Unit Change | % Change | Trading Rules Satisfied? |
|-----------|----------------|------------------------|-----------------|----------|--------------------------|
| Habitat   | 18.46          | 12.02                  | -6.43           | -34.86   | No                       |
| Hedgerow  | 5.55           | 9.90                   | 4.35            | 78.30    | Yes                      |

#### 4.2.4 Off-Setting

Due to the nature of this phase of the development, a net loss in habitats is expected, however, utilising units from Phase 5 – Southern Green Infrastructure (GI), which achieves a net gain of 47.92 (habitat) units using Metric 4.0, a net gain on Site is possible, without compromising the net gain or trading rules in Phase 5. Table 7 details the habitats taken from Phase 5 to offset the loss in Phase 4 and address the trading rules. As the development as a whole (One Horton Heath) is considered to be a single site, the habitat parcels 'taken' from Phase 5 have been input into the Phase 4 calculator as 'on-site' rather than as an 'off-site' contribution.

Table 7: Summary of baseline habitats from Phase 5 – Southern GI used to offset Phase 4 losses

| Broad Habitat | Habitat                 | Distinctiveness | Area (Ha) | Condition | Units |
|---------------|-------------------------|-----------------|-----------|-----------|-------|
| Grassland     | Modified grassland      | Low             | 0.1251    | Poor      | 0.28  |
|               |                         |                 | 0.5087    | Moderate  | 2.24  |
|               | Other neutral grassland | Medium          | 2.4559    | Moderate  | 22.59 |
| Totals        |                         |                 | 3.0897    |           | 25.11 |

Table 8 details the post-development habitats delivered by the habitat parcels from Phase 5 via enhancement of the existing habitats therein.

Table 8: Summary of post-development habitats from Phase 5 – Southern GI used to offset Phase 4 losses

| Broad Habitat Type | Habitat                 | Distinctiveness | Area (Ha) | Condition | Units |
|--------------------|-------------------------|-----------------|-----------|-----------|-------|
| Grassland          | Other neutral grassland | Medium          | 0.2784    | Moderate  | 2.00  |
|                    |                         |                 | 2.8113    | Good      | 33.90 |
|                    | Totals                  |                 | 3.0897    |           | 35.90 |

\* Total shown excludes additional area of individual trees.

The specific habitat parcels taken from Phase 5 to offset the Phase 4 losses are highlighted in Figure 2.

Following the offsetting, the Site can be expected to achieve an overall net gain, as demonstrated in Table 9 below.

Table 9: Summary of biodiversity net gain assessment after offsetting

| Unit Type | Baseline Units | Post-development Units | Net Unit Change | % Change | Trading Rules Satisfied? |
|-----------|----------------|------------------------|-----------------|----------|--------------------------|
| Habitat   | 43.56          | 47.92                  | 4.36            | +10.01%  | Yes                      |

Please refer to the separate BNG report prepared by Johns Associates (August 2023) for full details.

## 5 ASSESSMENT OF LIKELY RESIDUAL EFFECTS

### 5.1 HABITATS

Because some area-based habitats and hedgerows are being lost to facilitate the proposed development, compensation and enhancement has been incorporated into the design in order to ensure compliance with Rule 3 and Principle 7 of the Metric User Guide. The table below demonstrates how the mitigation hierarchy has been applied to all habitats on Site in accordance with Principle 2 of the Metric User Guide.

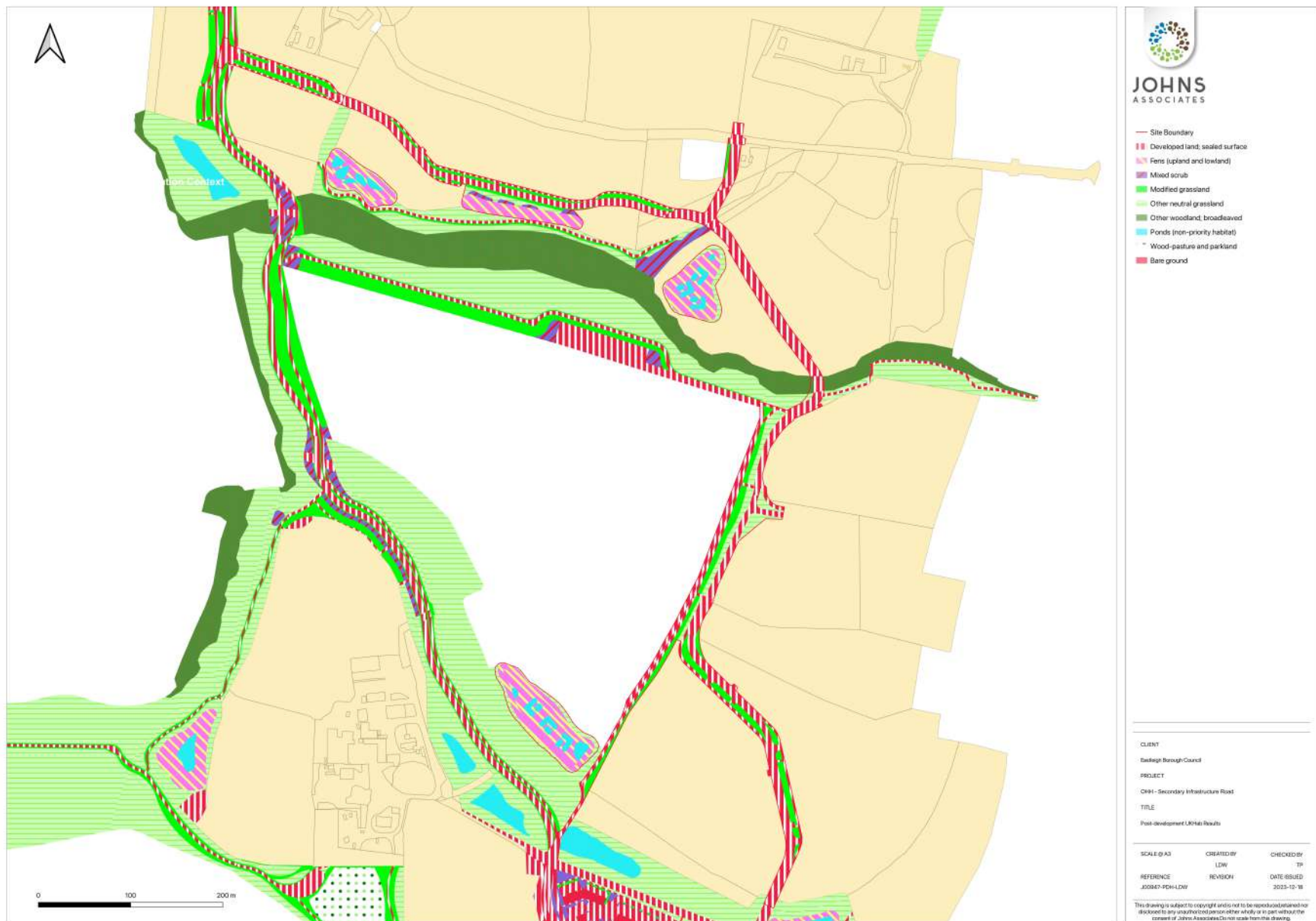
Biodiversity units are more easily achievable when habitats are retained and protected during construction and thereafter enhanced through improved management practices or additional planting (Principle 5 of the Metric User Guide). Therefore, as per the mitigation hierarchy, the improvement of the distinctiveness or condition (or both) of the retained habitats should always be a high priority. In this case, the enhancement of retained tree lines is not practicable, therefore new habitat creation is proposed in order to compensate for losses and provide sufficient enhancement to the Site overall.

Table 14: Application of the mitigation hierarchy (including offsetting from Phase 3)

| Broad Habitat Type  |                                              | Impacts Avoided? | Habitat Lost                         | Compensation to Meet Trading Rules                                         | Details/ Recommendations                                                                                                                                                                                                                     |
|---------------------|----------------------------------------------|------------------|--------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Urban               |                                              | No               | 0.3742 ha of bare ground             | Same distinctiveness or better habitat required ( $\geq$ )                 | <ul style="list-style-type: none"> <li>Creation of 0.6165 ha of modified grassland;</li> <li>Enhancement of 0.7882 ha of modified grassland to other neutral grassland;</li> <li>Creation of 0.2937 ha of other neutral grassland</li> </ul> |
| Cropland            |                                              | No               | 1.0037 ha of cropland                |                                                                            |                                                                                                                                                                                                                                              |
| Grassland           |                                              | No               | 2.1037 ha of modified grassland      |                                                                            |                                                                                                                                                                                                                                              |
|                     |                                              |                  | 0.6358 ha of other neutral grassland | Same broad habitat or a higher distinctiveness habitat required ( $\geq$ ) | <ul style="list-style-type: none"> <li>Creation of 0.03 ha of mixed scrub;</li> <li>Creation of 0.2001 ha of SuDS;</li> <li>Creation of 0.9605 ha of fens;</li> <li>Planting of 78 small urban trees</li> </ul>                              |
| Heathland and Shrub |                                              | No               | 0.0114 ha of mixed scrub             | Same broad habitat or a higher distinctiveness habitat required ( $\geq$ ) | <ul style="list-style-type: none"> <li>Creation of 0.03 ha of mixed scrub;</li> <li>Creation of 0.2001 ha of SuDS;</li> <li>Creation of 0.9605 ha of fens;</li> <li>Planting of 78 small urban trees</li> </ul>                              |
| Woodland and Forest |                                              | No               | 0.0188 ha of broadleaved woodland    |                                                                            |                                                                                                                                                                                                                                              |
| Hedgerows           | Species-poor Hedgerows                       | Yes              | N/A                                  | Same distinctiveness band or better                                        | <ul style="list-style-type: none"> <li>Creation of 0.177 km species-rich native hedgerow;</li> <li>Enhancement of 0.219 km native hedgerow from poor to moderate condition</li> </ul>                                                        |
|                     | Lines of trees                               | No               | 0.052 km lost                        |                                                                            |                                                                                                                                                                                                                                              |
|                     | Species-rich Hedgerows                       |                  | 0.031 km lost                        | Like for like or better                                                    | <ul style="list-style-type: none"> <li>Enhancement of 0.358 km of species-rich hedgerow with banks or ditches to good condition</li> </ul>                                                                                                   |
|                     | Species-rich hedgerows with banks or ditches |                  |                                      |                                                                            |                                                                                                                                                                                                                                              |
|                     | Species-rich Hedgerows with Trees            |                  | 0.035 km lost                        | Like for like                                                              | <ul style="list-style-type: none"> <li>Enhancement of 0.07 km of species-rich hedgerow with banks or ditches to species-rich hedgerows with trees</li> </ul>                                                                                 |

Taking this into account alongside the specific measures set out in Section 4.1, no significant negative impacts are expected to arise in relation to habitats from the Proposed Development. The Defra 4 BNG calculation summarized in Section 4.2 and summarized above shows an overall net gain in biodiversity of 8.68% associated with this planning application. See Figure 4 overleaf for the Proposed UKHab map.

Figure 4: Proposed UKHab map (Post-development)



## 5.2 BADGERS

No direct evidence of badger has been recorded in the area associated with the Proposed Development. Taking this into account alongside the scheme design and the specific measures set out in Section 4.1, it is considered reasonable to control that the scheme will result in neutral and non-significant effect to badgers.

## 5.3 BATS

The scheme design has sought to minimise the loss of these areas and provide replacement habitats that will be of suitable value to bats, including grassland, tree and open water habitats. Lighting design will also be minimised where bats are likely to be using these key linear habitats. Taking this into account alongside the specific measures set out in Section 4.1, it is considered reasonable to control that the scheme will result in neutral and non-significant effects to bats.

## 5.4 BREEDING BIRDS

A number of bird species (although no notable species) are known to use the habitats within the Site, notably hedgerows and woodland. The scheme design has sought to minimise the loss of these areas and provide replacement habitats that will be of suitable value to birds, including grassland, tree and open water habitats. Lighting design will also be minimised close to woodlands. Taking this into account alongside the specific measures set out in Section 4.1, it is considered reasonable to control that the scheme will result in neutral and non-significant effects to birds.

## 5.5 DORMICE

It is considered highly unlikely that dormouse is present within the construction and operational areas associated with the Proposed Development. Taking this into account alongside the scheme design and the specific measures set out in Section 4.1, it is considered reasonable to control that the scheme will result in neutral and non-significant effect to dormouse.

## 5.6 GCN AND OTHER AMPHIBIANS

It is considered highly unlikely that great crested newt is present within the construction and operational areas associated with the Proposed Development. Common frog *Rana temporaria* and toad may be present. Taking this into account alongside the scheme design and the specific measures set out in Section 4.1, it is considered reasonable to control that the scheme will result in neutral and non-significant effect to amphibians.

## 5.7 OTTER AND WATER VOLE

It is considered highly unlikely that otters and water voles are present within the construction and operational areas associated with the Proposed Development. Taking this into account alongside the scheme design and the specific measures set out in Section 4.1, it is considered reasonable to control that the scheme will result in neutral and non-significant effect to riparian mammals.

## 5.8 REPTILES

It is considered that only low numbers of common reptiles are present within the construction and operational areas associated with the Proposed Development. Taking this into account alongside the scheme design and the specific measures set out in Section 4.1, it is considered reasonable to control that the scheme will result in neutral and non-significant effect to reptiles.

## 6 CONCLUSIONS

Taking into account the ecological baseline, the integrated and additional ecological measures associated with the scheme, and the habitat/landscape design and other elements, alongside the overall increase in Biodiversity Net Gain of 10.01%, it is considered reasonable to conclude that the Proposed Development will have a neutral and non-significant impact on biodiversity and will meet local and national planning policy, and associated nature conservation legislation.

# APPENDIX A – LEGISLATION AND PLANNING POLICY

## LEGISLATION

Many species of animal and plant receive some degree of legal protection. For the purposes of this report, legal protection refers to: species included on Annex II of the Habitats Directive 1992 (Council of European Communities, 22/07/1992) , Schedules 2 and 5 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended) , excluding species that are only protected in relation to their sale (see Section 9[5] and 13[2]) reflecting the fact that the proposed development does not include any proposals relating to the sale of species.

Legal offences associated with species listed on Schedule 2 of the Conservation of Habitats and Species Regulations and Schedule 5 of the Wildlife and Countryside Act in England and Wales include inter alia:

- Deliberate capture, injury or killing of animals or taking or destroying their eggs;
- Deliberately disturb animals in a way that would significantly affect their local distribution or abundance, or affect their ability to survive, breed or rear young;
- Intentional or reckless disturbance of an animal in its place of shelter or protection;
- Damaging or destroying a resting place or breeding site;
- Intentionally or recklessly obstructing access to a place of shelter or protection; and
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead animal or any part of an animal.

Relevant species listed on these Schedules that are potentially associated with this Site include bats and reptile species (e.g. slow worm). All species of bat receive full protection from all legal offences listed above. Common reptile species receive partial protection under the Wildlife and Countryside Act in that they are protected from killing and injury only.

All species of wild bird are protected under the Wildlife and Countryside Act (1981) (as amended) from killing or injury. In addition, it is an offence to take or damage/ destroy their eggs and to damage or destroy a nest whilst it is in use. Species listed on Schedule 1 (such as barn owl) receive additional protection in that it is illegal to disturb birds or their young whilst occupying, or near to, an active nest.

A number of wild plants, habitats and animals (including reptiles, hedgehog and most species of bat) are also included within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 which lists flora, fauna and habitats considered by the Secretary of State to be of principal importance for conserving biodiversity. The publication of the "England Biodiversity List" satisfies the requirements of Section 41 of the NERC Act 2006 for the conservation of biodiversity. Section 40 of the NERC Act 2006 requires public bodies, including local planning authorities, to have regard for the conservation of biodiversity in England, when carrying out their normal functions.

Badgers are protected under the Protection of Badgers Act 1992 (UK Government, 1992) which makes it an offence to wilfully kill, injure or take (or attempt to kill, injure or take) a badger; or to disturb badgers whilst occupying their setts.

## The Environment Act 2021

Under the Environment Act 2021 all planning permissions granted in England (with a few exemptions) will have to deliver at least 10% biodiversity net gain from January 2024.

Mandatory biodiversity net gain as set out in the Environment Act applies in England by amending the Town & Country

Planning Act (TCPA) with key statutory instruments anticipated by the end of 2023. The Act sets out the following key components to mandatory BNG:

- Minimum 10% gain required calculated using Biodiversity Metric & approval of net gain plan.
- Habitat secured for at least 30 years via obligations/conservation covenant.
- Habitat can be delivered on-site, off-site or via statutory biodiversity credits.
- There will be a national register for net gain delivery sites.
- The mitigation hierarchy still applies of avoidance, mitigation and compensation for biodiversity loss.
- Does not change existing legal environmental and wildlife protections.

The Environment Act sets out that development subject to mandatory BNG will be required to submit a biodiversity gain plan for planning authority approval and the planning authority is required to approve it prior to commencement. This is required under the 'General Condition of planning permission' added as Schedule 7A to the Town and Country Planning Act 1990 (under Schedule 14 of the Environment Act).

## NATIONAL PLANNING POLICY

There are numerous national and local planning policies associated with flora and fauna (also referred to as biodiversity) that need to be addressed as part of the planning process. The Government has issued its National Planning Policy Framework (NPPF) 2023, which requires impacts to biodiversity to be minimised. Paragraph 181 of the NPPF applies the same protection to Ramsar sites as that conferred by the Habitats Regulations to SACs and SPAs. The NPPF requires development to apply the following principles (Paragraphs 179-180):

- Minimise impacts on and provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressure;
- Identify and pursue opportunities for securing measurable net gains for biodiversity;
- Ensure that there will be no adverse impacts to SSSIs (such development would not normally be permitted);
- Ensure that there will be no loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees), unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- Where significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts) adequate mitigation, or as a last resort compensation, must be provided.
- The NPPF and associated Planning Practice Guidance also emphasise the requirement for ecological networks and wildlife corridors to be created throughout the wider landscape (paragraph 179).

Planning authorities should follow key principles to ensure that the potential impacts of planning decisions on biodiversity conservation are considered. Circular 06/05: Biodiversity and Geological Conservation provides guidance on the application of the law relating to planning and nature conservation and complements the NPPF.

## The Natural Environment Paper

"The Natural Choice: Securing the Value of Nature" outlines the Government's approach and vision for nature in the UK including protecting and improving our natural environment, growing a green economy and reconnecting people and nature.

## Biodiversity 2020

A strategy for England's wildlife and ecosystem services, are the country level strategies for England and builds on the natural Environment White Paper. It sets out the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea. The priorities for action include a more integrated large-scale approach to conservation, putting people at the heart of biodiversity policy, reducing environmental pressure and improving knowledge.

## LOCAL PLANNING POLICY

As well as national policy, there is relevant biodiversity policy contained within Eastleigh Borough Council's Local Plan 2016 to 2032 (dated April 2022).