



ECOLOGICAL IMPACT ASSESSMENT
LONDON ROAD TOUCAN CROSSING
BEREWOOD
WATERLOOVILLE
HAMPSHIRE

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ON BEHALF OF
GRAINGER LTD



The Old Squash Court,
Rempstone Hall,
Rempstone,
Corfe Castle,
Wareham,
Dorset,
BH20 5JQ
www.ecological-services.co.uk

Telephone: 01929 477115
E-mail: enquiries@ecological-services.co.uk

Authorisation

	Name	Date
Report prepared by:	JS	27.08.2025
Report reviewed and authorised by:	SH	28.08.2025
Report updated by:	JS	02.12.2025
Report updated by:	JS	15.12.2025

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1.0 EXECUTIVE SUMMARY

- 1.1 LC Ecological Services Limited were commissioned by Grainger Ltd to conduct an Ecological Impact Assessment to support a planning application for the London Road Toucan Crossing at Berewood, Waterlooville, Hampshire (Central grid ref: SU 67609 08732).
- 1.2 This report is to support the preparation and vegetation removal in order to provide the connection between the footpath in Town Park towards the new crossing.
- 1.3 The scoping information provided by the ecological appraisal summarises the ecological baseline methods and results; evaluates the Important Ecological Features (IEFs); and indicates the potential impacts and proposes mitigation for the construction and operation of the proposed development.
- 1.4 Nine IEFs were identified during the EcIA, including one habitat of regional importance, three habitats of local importance, and five fauna of local importance. No significant negative impacts on these IEFs were identified during the assessment following the application of mitigation measures.
- 1.5 The zone of influence of the project was determined by the sensitivity of the ecological features to environmental change within the site and the surrounding area in accordance with the guidelines for EcIA (CIEEM, 2018).

2.0 INTRODUCTION

- 2.1 LC Ecological Services Limited were commissioned by Grainger Ltd to conduct an Ecological Impact Assessment to support a planning application for the London Road Toucan Crossing at Berewood, Waterlooville, Hampshire (Central grid ref: SU 67609 08732). This report is to support the preparation and vegetation removal in order to provide the connection between the footpath in Town Park towards the new crossing. A site plan has been provided in appendix I, and proposals have been provided in appendix II.
- 2.2 The report summarises the ecological baseline methods and results; evaluates the Important Ecological Features (IEFs); and indicates the potential impacts and proposes mitigation for the construction and operational stages of the proposed development.
- 2.3 The purpose of this report is to outline the following:
- To identify and describe all potentially significant ecological effects associated with the proposed development.
 - To set out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects.
 - To identify how mitigation measures will/could be secured.
 - To provide an assessment of the significance of any residual effects.
 - To identify appropriate enhancement measures.
 - To set out the requirements for post-construction monitoring.

3.0 LEGISLATION AND POLICY CONTEXT

Legislation

3.1 Full details of statutory obligations with respect to biodiversity and the planning system can be found in DEFRA Circular 06/2005. Relevant legislation to this application site includes the following:

- **Internationally Designated Sites:** Special Protection Areas (SPA) and Special Areas of Conservation (SAC) are listed as National Site Networks which are designated for supporting habitats or species of high nature conservation importance in the European context. protected under the *Conservation of Habitats and Species (Amendment) Regulations 2017* and Ramsar sites are protected under the *Ramsar Convention (1971)*.
- **Nationally Designated Sites:** Sites of Special Scientific Interest (SSSI) are protected under section 28 of the *Wildlife and Countryside Act (WCA) 1981 (as amended)*.
- **Badgers (*Meles meles*):** *Protection of Badgers Act 1992*.
- **Bats:** all species of British bats and their roosts are fully protected under the *Wildlife and Countryside Act (WCA) 1981 (as amended)* and the *Conservation of Habitats and Species (Amendment) Regulations 2017*.
- **Birds:** all birds, their nests, eggs and young are protected by the *WCA 1981 (as amended)*.
- **Mammals:** *Wild Mammals (Protection) Act 1996*.
- **Reptiles:** the adder (*Viper berus*), common lizard (*Zootoca vivipara*), grass snake (*Natrix helvetica*) and slow worm (*Anguis fragilis*) receive protection under the *WCA 1981 (as amended)*.

National Planning Policy

3.2 Chapter 15 of the National Planning Policy Framework (NPPF 2024) ‘*Conserving and enhancing the natural environment*’ sets out the Government’s policies on biodiversity, landscape and geological conservation. Relevant paragraphs within this chapter include:

- **Paragraph 187:** Recognise the wider benefits of ecosystem services and minimise impacts on biodiversity, providing net gains in biodiversity.
- **Paragraph 188:** Planning positively and distinguishing between the hierarchy of designated sites and allocating land with the least environmental value and maintaining and enhancing networks of habitats and green infrastructure.
- **Paragraph 192:** Protect and enhance biodiversity and geodiversity by safeguarding wildlife-rich habitats and wider ecological networks; promote

the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and securing biodiversity net gain.

- **Paragraph 193:** Refuse development if found to have significant harm to biodiversity; is on land within or outside a Site of Special Scientific Interest (SSSI) which is likely to have an adverse effect; if results in the loss or deterioration of irreplaceable habitats. Developments with the primary objective to conserve or enhance biodiversity will be supported, while opportunities to improve biodiversity in and around developments should be integrated as part of their design and can secure measurable net gains for biodiversity or enhance public access to nature.
- **Paragraph 194:** Protection to be given to potential SPA and possible SACs, proposed Ramsar sites, and sites identified or required as compensatory measures for impacts to these sites.
- **Paragraph 195:** Considers if the development is to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Local Planning Policy

3.3 Relevant planning policies within the Havant Borough Core Strategy, (Adopted March 2011) include:

- Policy CS11 Protecting and Enhancing the Special Environment and Heritage of Havant Borough
- Policy CS13 Green Infrastructure

Biodiversity Action Plans

3.4 Relevant Biodiversity Action plans (BAPs) are as follows:

- Hedgerows (UK BAP).
- Soprano pipistrelle bat (*Pipistrellus pygmaeus*) (UK BAP).
- Hazel dormouse (*Muscardinus avellanarius*) (UK BAP).

4.0 ASSESSMENT METHODOLOGY

Study Area

4.1 The site is located at Ordnance Survey (OS) grid reference SU 67609 08732 and the study area comprises the site plus:

- 5 kilometres for statutory designated sites
- 2 kilometres for non-statutory designated sites
- 2 kilometres for all protected and notable species including bats
- 500 metres for great crested newts (*Triturus cristatus*); and
- 30 metres for badgers.

Sources of Information

4.2 The following sources of information were used to inform the impact assessment.

Table 1: Summary of survey work and sources of information

Survey type	Year(s)	Comment
Data search of protected and notable species within 2 kilometres of the site	2023	Hampshire Biodiversity Information Centre (HBIC)
Ecological appraisal	2025	LC Ecological Services in August 2025
UK Habitat Classification survey and condition assessment	2025	LC Ecological Services in August 2025
Badger survey	2025	LC Ecological Services in August 2025
Bats – tree roost assessment	2025	LC Ecological Services in August 2025
eDNA surveys for great crested newts	2022, 2025	LC Ecological Services updated in April 2025
Hazel dormouse habitat assessment	2025	LC Ecological Services in August 2025
Reptile habitat assessment	2025	LC Ecological Services, in August 2025

Assessment Process

4.3 The EclA is in accordance with the CIEEM *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018).

4.4 The starting point was to determine which features should be subject to detailed assessment, that is, those IEFs:

- a) Of sufficient value that impacts upon them may be significant (in terms of legislation or policy); and
 - b) Potentially vulnerable to significant impacts arising from the development.
- 4.5 This approach is consistent with the EIA Regulations, which only require investigation of likely significant effects.
- 4.6 The CIEEM guidelines recommend that the value of IEFs or features is determined based on a geographic frame of reference that includes the following levels:

Table 2: Level of Value Assigned to each IEF (adapted from CIEEM, 2018)

Level of Value	Example of Definitions
International	<p>An internationally important site e.g. SPA, SAC, Ramsar (or a site considered worthy of such a designation).</p> <p>A viable area of a habitat type listed in Annex 1 of the Habitats Directive, or smaller areas of such habitats which are essential to maintain the viability of a larger whole.</p> <p>A regularly occurring population of an internationally important species (listed on Annex IV of the Habitats Directive).</p>
UK / National	<p>A nationally designated site e.g. SSSI or a site considered worthy of such designation.</p> <p>A viable area of a priority habitat identified within the UK BAP, or of smaller areas of such habitat which are essential to maintain the larger whole.</p> <p>Any recurring population of a nationally important species e.g. listed on Schedules 5 and 8 of the Wildlife and Countryside Act 1981 (as amended).</p> <p>A feature identified as of critical importance in the UK BAP.</p>
Regional (Hampshire)	<p>A site designated as either a Site of Importance for Nature Conservation (SINC) or a Site of Nature Conservation Interest (SNCI), or habitats that meet the designation criteria for SINC in Hampshire.</p> <p>Areas of internationally or nationally important habitats which are degraded but are considered readily restored.</p> <p>A regularly occurring, locally significant population of a species listed as being nationally scarce.</p> <p>A regularly occurring, locally significant number of a regionally important species.</p>
Local (the zone of influence including the	<p>Areas of internationally or nationally important habitats which are degraded and have little or no potential for restoration.</p>

Level of Value	Example of Definitions
site and its immediate vicinity, including habitats within or linked to those on site)	A good example of a common or widespread habitat in the region.

Assessment Criteria

Predicting and Characterising Ecological Impacts

- 4.7 The assessment of magnitude of effect assesses whether an impact will be positive or negative; its extent; duration; reversibility and timing and frequency as well as the cumulative effect. A combination of quantitative information and qualitative assessment based on professional judgment was used whilst considering all of these factors to assign effects on the IEFs to one of four categories as detailed in table 3 below.

Table 3: Assessment of Magnitude of Effects

Category	Definition
High	A permanent or long-term effect on the extent/size or integrity of a site, habitat, species assemblage or community, population or group. If adverse this is likely to threaten its sustainability. If beneficial this is likely to enhance its conservation status.
Medium	A permanent or long-term effect on extent/size or integrity of a site, habitat, species assemblage or community, population or group. If adverse this is unlikely to threaten its sustainability. If beneficial this is likely to be sustainable but is unlikely to enhance its conservation status.
Low	A short-term but reversible effect on the extent/size or integrity of a site, habitat or species assemblage or community, population or group that is within the range of variation normally experienced between years.
Negligible	A short-term but reversible effect on the extent/size or integrity of a site, habitat or species assemblage or community, population or group that is within the normal range or annual variation.

- 4.8 For each IEF, the significance of the effects of the proposed development during construction and operation are assessed and the type of impacts are characterised according to their importance and magnitude. Where there is uncertainty over the appropriate level of significance to assign, this will be stated but as a precautionary measure the higher level of significance will be applied. Where impacts will arise, mitigation and enhancement measures are provided.

Direct and Indirect Ecological Impacts

- 4.9 Both direct and indirect impacts are considered within this assessment. A direct impact is a defined action such as the physical loss of a habitat or the immediate mortality of an individual of a particular species. Indirect impacts are attributable to an action, but which affect ecological resources through effects on an

intermediary ecosystem, process or IEF e.g. the loss of an important prey species for a predator.

Limitations

- 4.10 The grassland had been managed and therefore some flowering species were missing flowerheads to aid identification. Despite this, it is considered that a sufficient level of botanical information was recorded to enable classification of the broad habitat types present on site, and to make an initial assessment of their value and condition.

5.0 BASELINE

- 5.1 An ecological appraisal and UK habitat classification survey and condition assessment were conducted on the site in August 2025 by LC Ecological Services Ltd, by suitably qualified ecologist, Jenny Sutch. The methodology and the key findings are summarised in this section to inform the nature conservation evaluation for each of the IEFs identified.

Statutory sites

- 5.2 The site is located within close proximity to high-quality habitats. Chichester and Langstone Harbours SPA and Ramsar lie 3.72 kilometre to the south-east of the site, Portsmouth Harbour SPA, Ramsar and SSSI lies 4.74 kilometres south west, and Solent Maritime SAC lies 3.72 kilometre to the south east. The nearest statutory site is Lye Heath Marsh SSSI which is situated 2.6 kilometres to the west of the site. There are not anticipated to be any impacts to these sites from this element of the scheme. Issues relating to the wider housing development are detailed within the Ecology Chapter for the development (Biodiversity by Design 2010b). No further action is required. A full list of statutory designated sites is provided in appendix III.
- 5.3 Non-statutory designated sites include Sites of Importance for Nature Conservation (SINCs), of which there are 16 located within two kilometres of the site, with six located within 1 kilometres. The nearest SINC is Newlands Row and Plant Row located approximately 550 metres west and Newlands Farm Meadow located 670 metres south west. There are not anticipated to be any impacts on these sites from this element of the scheme. No further action is required. Full details are provided in appendix III.

Habitats

- 5.4 The habitat types within the site were noted during the survey on the 14th August 2025. A UK Habitats Classification survey (UKHABS Ltd, 2023) was undertaken by experienced ecologist Jenny Sutch.
- 5.5 The majority of the site comprised areas of other neutral grassland with scattered trees, scrub and hedgerow. The A3 London Road forms the southern eastern boundary of the site, whilst Town Park public open space (comprising modified grassland, other neutral grassland, tarmac footpaths and scattered trees) surrounds the site. The following habitats were recorded on the site and are described below, whilst full descriptions are provided in appendix IV, a habitat map is provided as appendix V, and photographs are provided in appendix VI.
- Other neutral grassland – g3c
 - Modified grassland – g4
 - Mixed scrub – h3h
 - Species-rich native hedgerow with trees – h2a5

- Developed land, sealed surface – u1b6

Other neutral grassland - g3c

- 5.6 The majority of the site impact area comprises other neutral grassland. The ground was dry at the time of the survey with bare patches visible. Frequent Yorkshire-fog (*Holcus lanatus*) and perennial rye-grass (*Lolium perenne*) with locally frequent cock's-foot (*Dactylis glomerata*) were recorded amongst common herbaceous species including frequent yarrow (*Achillea millefolium*), locally occasional white clover (*Trifolium repens*), and selfheal (*Prunella vulgaris*).
- 5.7 An individual fruit tree was located within the grassland habitat. The fruit tree was approximately 4 metres tall with a diameter of approximately 5 centimetres.
- 5.8 Other neutral grassland was also present forming less than a 1 metre wide area between the hedgerow and footpath adjacent to the A3 London Road. This grassland was managed with bare earth patches due to the dryness of the ground.

Modified grassland – g4

- 5.9 An area of modified grassland was located north west of the development area. The grassland showed evidence of thatching and was regularly managed with evidence of recreational use during the site visit. Species present included locally abundant cock's-foot, frequent Yorkshire-fog, perennial rye-grass, creeping bent (*Agrostis stolonifera*), and white clover, creeping buttercup (*Ranunculus repens*), and occasional creeping thistle (*Cirsium arvense*) and daisy (*Bellis perennis*).

Mixed scrub – h3h

- 5.10 An area of planted mixed scrub is located between the grassland and hedgerow habitat. Species present include hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), field maple (*Acer campestre*), dogwood (*Cornus sanguinea*), dog rose (*Rosa canina*) and guelder rose (*Viburnum opulus*).

Species-rich native hedgerow with trees – h2a5

- 5.11 A hedgerow measuring between 5 and 6 metres in height and 2 metres in width comprising hazel (*Corylus avellana*), hawthorn, blackthorn, field maple, elm (*Ulmus* sp), gorse (*Ulex europaeus*), dogwood, fruit tree (*Prunus* sp) and bramble (*Rubus fruticosus* agg) was present. Standard trees including a pedunculate oak (*Quercus robur*) and wych elm (*Ulmus glabra*) was present within the hedgerow. This hedgerow is considered to be a priority habitat under the NERC Act.

Developed land, sealed surface – u1b6

- 5.12 Developed land, sealed surface was recorded on site in the form of formal pedestrian footpaths running through Town Park, with the southern area extending to where the new crossing will connect.

Assessment of habitats

- 5.13 The level of value of these habitats is summarised in table 4 below.

Table 4: Level of value of habitats recorded within the site

IEF	Evaluation rationale	Value of IEF
Other neutral grassland	This is a common habitat at local, county, and national levels which can support a range of fauna and flora.	Local
Modified grassland	This is a common habitat at local, county, and national levels which can support a range of fauna.	Local
Mixed scrub	This is a common habitat at local, county, and national levels which can support a range of fauna.	Local
Species-rich native hedgerow with trees	This is a common habitat at local, county, and national levels which can support a range of fauna. The hedgerow is considered to be a priority habitat under the NERC Act.	Regional
Developed land, sealed surface	This habitat has no ecological value	Negligible

Protected and Notable Species

- 5.14 HBIC were previously contacted for records of protected and notable species from within a two-kilometre radius of the Berewood site. Full results are provided in appendix III however, records of bat, multiple bird records, records of hazel dormouse (*Muscardinus avellanarius*), records of hedgehog (*Erinaceus europaeus*), records of badger and records of slow worm and great crested newt were returned.
- 5.15 The results of the protected/notable species data search and surveys, together with an evaluation of each species, are referred to by their common and scientific names.

Badger

- 5.16 The site, its boundaries and a 30-metre buffer zone around the site (where access was possible), were surveyed for badger evidence such as setts, latrines, pathways, footprints, snuffle holes and badger fur (English Nature, 2002). The survey was undertaken by experienced ecologist Jenny Sutch on the 14th August

2025. Any setts recorded were classified according to published criteria (Harris, Cresswell and Jefferies, 1989).

- 5.17 Three historic records of badger within two kilometres of the site were noted. No setts, latrines, or badger fur were recorded during the site visit.
- 5.18 Evidence of badger has been recorded within the wider Berewood site, and the site is considered to support foraging habitat.

Bats

Trees

- 5.19 Trees on site were assessed for their potential to support roosting bats by licenced ecologist Jenny Sutch (Class 2 bat licence). A ground level tree assessment (GLTA) was undertaken in accordance with the methodology in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). (Collins, 2023), whereby trees were assessed from ground level, surveying for any evidence of roosting bats, such as urine staining or droppings, and any features which could potentially be used as roosting locations by bats, such as cracks, crevices, loose bark or hollows. The potential of the trees to support roosting bats was determined using the scale presented in table 5 and 6 below.

Table 5: Criteria for assessing the suitability of trees on proposed development sites for bats trees

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

Table 6: Criteria for assessing the of potential suitability of PRF on a proposed development site for bats

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony

- 5.20 There are multiple records of bats within two kilometres of the site, including multiple records from bat roosts. The trees and scrub on site were not considered suitable to support roosting bats and were all assessed as NONE in accordance with table 5. No further action is therefore required and bat roosts in trees have been screened out of this assessment.

Foraging and commuting habitat

- 5.21 The habitats on site, and the habitats they connect to, were assessed for their suitability to support foraging and commuting bats in accordance with the Bat Conservation Trust guidelines (BCT, 2023). The site is of low to moderate quality for foraging and commuting bats due to the hedgerow and scrub on site, however the site is adjacent to London Road where street lighting is present. There is limited connectivity to suitable habitat in the wider landscape although the existing hedgerow extends the length of London Road adjacent to Town Park and phase 8, with open public space at Town Park linking to woodland in the west. A temporary access for phase 8 has previously been installed that created a break in the hedge further north along London Road.

Nesting birds

- 5.22 Habitats within the site were assessed for their potential to support nesting birds. The scrub and hedgerow on site provide potential nesting habitat for birds.

Great crested newt

- 5.23 The terrestrial habitats on site are considered suitable for great crested newts due to foraging opportunities provided in the scrub and hedgerow edge. The grassland habitat is considered to be sub-optimal due to the regular management of the grassland habitat. Records of great crested newt are located within the wider Berewood site with populations still present within the breeding pond in 2025 which is located 1 kilometre north west of the site. Due to the distance between the breeding pond and the application site, **great crested newt has been screened out of this assessment.**

Hazel dormouse

- 5.24 Multiple records of hazel dormouse are present within two kilometres of the site and targeted surveys have been undertaken over a number of years across Berewood. Phase 7 and Blue Star Land (closest to the site) both returned negative results from targeted hazel dormouse surveys. Habitats on site were assessed as providing suitable habitat for the hazel dormouse within the scrub and hedgerow. The existing hedgerow extends the length of London Road adjacent to Town Park but does not connect to any woodland or other hedgerow networks. A number of breaks are present for pedestrian and vehicle access.

Reptiles

- 5.25 Reptile records for slow worm, grass snake, adder and common lizard have been provided.
- 5.26 Habitats on site were assessed for their suitability to support reptile species in accordance with the *Reptile surveys. An introduction to planning, conducting and*

interpreting surveys for snake and lizard conservation. (Froglife, 1999). High quality reptile habitat holds a mixed height sward of grassland habitats with areas of refuge, shelter, and hibernation. The majority of the habitat on site is uniform due to the management undertaken and it is therefore considered unlikely to sustain and support a population of reptiles on site. The site however may support individual species utilising the scrub and hedgerow.

Assessment of species

5.27 The level of value of these species is summarised in table 7 below.

Table 7: Level of value of protected species supported on the site.

Receptor	Evaluation rationale	Value of receptor
Badger	Records of badger within 2 kilometres of the site, with suitable commuting and foraging habitat present within the red line boundary. No evidence of badger was encountered within the site boundary.	Local
Foraging and commuting bats	The site offers low to moderate potential for foraging and commuting bats.	Local
Breeding birds	Common and widespread species of birds will use scrub and the hedgerow for nesting and foraging.	Local
Hazel dormouse	The site offers optimal habitat for hazel dormouse within the hedgerow. Hazel dormice have been recorded within the wider Berewood.	Local
Reptiles	The site is considered to support individual common reptile species.	Local

6.0 ASSESSMENT OF POTENTIAL IMPACT

- 6.1 The impacts have been assessed against the development proposals including the inherent mitigation measures described below. The proposals will involve the loss of scrub, woodland and grassland habitat.
- 6.2 Impacts of the proposed development are discussed for the IEFs that are of at least local value or subject to legal consideration. The IEFs included from this point on are therefore limited to:
- Other neutral grassland (Local value)
 - Modified grassland (Local value)
 - Mixed scrub (Local value)
 - Species-rich native hedgerow (Regional value)
 - Badgers (Local value)
 - Bats: foraging and commuting habitat (Local value)
 - Nesting and foraging birds (Local value)
 - Hazel dormouse (Local value)
 - Reptiles (Local value)

Construction Phase Impacts

Habitats

Other neutral grassland and mixed scrub

- 6.3 The proposed works will result in the loss of other neutral grassland and mixed scrub on site. Given the low botanical value of these existing habitats on site and the small-scale of the habitat loss, **it is therefore concluded that the magnitude of the adverse effect is low and not significant.**

Species rich-native hedgerow with trees

- 6.4 The proposed works will result in the removal of the hedgerow habitat. In addition, the construction works could potentially have adverse indirect pollution impacts on the retained hedgerow, for example as a consequence of dust deposition, and/or contamination with man-made chemicals, fuels or other pollutants. This in turn could have an adverse effect on the condition of the hedgerow. **The magnitude of the adverse effects is expected to be low and not significant.**

Modified grassland

- 6.5 The modified grassland will be enhanced in order to offset the loss of the other neutral grassland and mixed scrub. **The magnitude of effect is expected to be a minor positive significant impact.**

Protected and Notable Fauna

Badger

- 6.6 The proposed works will result in the loss of suitable foraging habitat for badger. Due to the site's setting within a wider active development zone, **the magnitude of the adverse effects is expected to be low and not significant.**

Bats: foraging and commuting

- 6.7 The proposed works will result in the loss of an area of suitable foraging and commuting habitat for bats on site, comprising other neutral grassland, scrub and hedgerow habitat. The construction works are not considered to cause any level of disturbance impacts due to works commencing during day time hours and lighting not required. In addition, there is existing street lighting along London Road which spills onto the existing hedgerow. Due to the site's setting within a wider active development zone, **the magnitude of the adverse effects is expected to be low and not significant.**

Birds: nesting and foraging

- 6.8 The proposed works will result in the loss of an area of suitable nesting and foraging habitat for birds on site, comprising hedgerow and scrub habitats. The site preparation works could also result in the disturbance of actively nesting birds, accidental destruction of bird nests, and/or accidental injury or mortality of individual birds. Due to the site's setting within a wider active development zone, **the magnitude of these adverse effects is expected to be low and not significant.**

Hazel dormouse

- 6.9 The proposed works will result in the loss of an area of suitable habitat for hazel dormouse on site comprising hedgerow and scrub habitats. The hedgerow habitat is considered to be isolated from any other hedgerow networks and woodland parcels. Due to the site's setting within a wider active development zone, **the magnitude of these adverse effects is expected to be low and not significant.**

Reptiles

- 6.10 The proposed works will result in the loss of an area of suitable habitat for common species of reptiles on site, hedgerow and scrub habitats. The site preparation works could also potentially result in injury and/or killing of individual reptiles. Due to the current management of the surrounding site and the site's setting within a wider active development zone, **the magnitude of these adverse effects is expected to be low and not significant.**

Operational Phase Impacts

Protected and Notable Fauna

Badger

- 6.11 When operational, there is considered to be a positive benefit to badger through the scrub planting and enhancement to the modified grassland as part of the Biodiversity Net Gain strategy. Taking into account the lack of evidence of badger within the survey area and 30 metres of the site boundary, **the magnitude of effect is expected to be positive and not significant.**

Bats: foraging and commuting

- 6.12 When operational, the proposed development is unlikely to have a long-term adverse impact on bats as a result of habitat loss and the local extension of urban infrastructure. There is no proposed lighting as part of this development scheme, however there is existing street lighting along London Road which spills onto the existing hedgerow. There is considered to be a positive benefit to bats through the scrub planting and enhancement to the modified grassland as part of the Biodiversity Net Gain strategy. **The magnitude of any such effects is expected to be positive and not significant.**

Birds: nesting and foraging

- 6.13 When operational, the proposed development could potentially have a long-term adverse impact on nesting and foraging birds as a result of habitat loss and the local extension of urban infrastructure, as well as increased levels of anthropogenic disturbance. Any existing bird nesting and/or foraging activity both on the site itself and the directly adjacent land would likely be displaced to other areas of suitable habitat in the locality. However, there is considered to be a positive benefit to nesting and foraging birds through the scrub and hedgerow planting and enhancement to the modified grassland as part of the Biodiversity Net Gain strategy. **The magnitude of effect is expected to be positive and not significant.**

Reptiles

- 6.14 When operational, there is considered to be a positive benefit to reptiles through the scrub and hedgerow planting and enhancement to the modified grassland as part of the Biodiversity Net Gain strategy. **The magnitude of any such adverse effects is expected to be positive and not significant.**

7.0 MITIGATION

Construction Phase

Habitats

Other neutral grassland, mixed scrub, line of trees and hedgerow

- 7.1 The loss of the existing other neutral grassland, mixed scrub and hedgerow habitats on site in order to facilitate the construction phase will be compensated for via on-site habitat creation. An area of modified grassland located north of the site within Town Park will be enhanced to provide other neutral grassland, with scrub planting and 70 metres of hedgerow planting, along with 0.138 hectares of tree planting. The grassland will comprise a species rich neutral grassland. The tree planting will comprise field maple (*Acer campestre*), hornbeam (*Carpinus betulus*), pedunculate oak (*Quercus robur*), cherry (*Prunus avium*) and small-leaved lime (*Tilia cordata*). The hedgerow and mix scrub planting comprises hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), blackthorn (*Prunus spinosa*), dog rose (*Rosa canina*), alder buckthorn (*Frangula alnus*) and guelder rose (*Viburnum opulus*). The hedgerow will include six trees: two pedunculate oak (*Quercus robur* 'Pendula'), two cherry (*Prunus avium*) and two small-leaved lime (*Tilia cordata*). Amenity grassland seed mix will be sown along the embankment either side of the path. This is all detailed within the associated Biodiversity Net Gain report (LCES, 2025) and illustrated in appendix XII.
- 7.2 The hedgerow habitat outside of the red line boundary to be retained will be protected during works with the use of Heras fencing to ensure no accidental damage occurs during the proposed works.

Protected and Notable Fauna

Badger

- 7.3 The proposed habitat creation as detailed in paragraph 7.1 and the associated Biodiversity Net Gain report (LCES, 2025) will ensure badger have suitable foraging habitat on site. In addition, prior to works commencing a pre-works check for any badger activity on site will be undertaken. Where development is to occur within 30 metres of the badger sett, a disturbance licence from Natural England may be required.

Bats: foraging and commuting

- 7.4 The proposed habitat creation as detailed in paragraph 7.1 and the associated Biodiversity Net Gain report (LCES, 2025) will ensure bats have suitable foraging habitat on site.

Birds: nesting and foraging

- 7.5 To avoid the risk of disturbing, injuring or killing nesting birds, all vegetation clearance required as part of the site preparation works should ideally be undertaken outside of the bird nesting season which is considered to run from March to August (inclusive). Where any vegetation clearance must be undertaken within the nesting bird season, the working areas must first be checked by an ecologist for the presence of any nesting birds (including both arboreal and ground nesters) immediately prior to clearance. Should any active nests be encountered, the clearance in those particular areas must be postponed and a suitable protection zone established until either the nestlings have fledged or the nest is abandoned.

Hazel dormouse

- 7.6 The following targeted measures will be implemented to safeguard hazel dormouse from harm during the proposed habitat clearance and site preparation.
- The small areas of hedgerow and scrub due to be removed are fragmented and does not connect to other arboreal habitat. As such prior to its removal a precautionary working method will be followed which will allow for a licensed dormouse ecologist to conduct a fingertip search for evidence of the hazel dormouse. If no evidence is encountered, contractors will be allowed to remove the vegetation in stages. Where evidence of the hazel dormouse is encountered, the vegetation will not be removed until a licence can be sought from Natural England.

Reptiles

- 7.7 To safeguard reptiles from harm during the proposed habitat clearance and site preparation works the grassland habitats will continue to be managed to prevent colonisation from nearby suitable habitats. To ensure hibernating reptiles are not impacted the roots of the hedgerow and scrub will not be removed during the active season and only between March and October when day time temperatures are above 10 degrees Celsius.

Operational Phase

Badger, bats, birds and reptiles

- 7.8 The proposed on-site habitat creation (refer to section 7.2) will ensure that there is a suitable level of good quality habitat available for protected species within the locality during the operational phase.

8.0 RESIDUAL EFFECTS

- 8.1 The proposed development would result in a minor positive impact due to the creation of scrub, tree and hedgerow planting and enhancement of modified grassland to other neutral grassland, as outlined in section 7.2. No residual effects are anticipated.

9.0 IN-COMBINATION EFFECTS

- 9.1 The proposed development could potentially have adverse in-combination effects on all of the IEFs covered in this assessment due to it forming a part of the large scale housing and urban infrastructure project across the wider Berewood development area. However, it is considered that the combination of the proposed on-site habitat creation and enhancement measures, and the Berewood site-wide biodiversity enhancement strategies and green infrastructure provision (much of which has already been implemented), will collectively ensure that a suitable level of mitigation for in-combination effects is provided.

10.0 CONCLUSIONS

- 10.1 The proposed development will result in a loss of habitat, including existing other neutral grassland, mixed scrub and hedgerow habitats, as a consequence of the land-take required, however this will be appropriately compensated for via on-site enhancement measures. **The proposed development and associated ecological mitigation and enhancement measures is expected to result in an overall long-term positive effect (not significant) on biodiversity and the ecological features identified during this assessment.**

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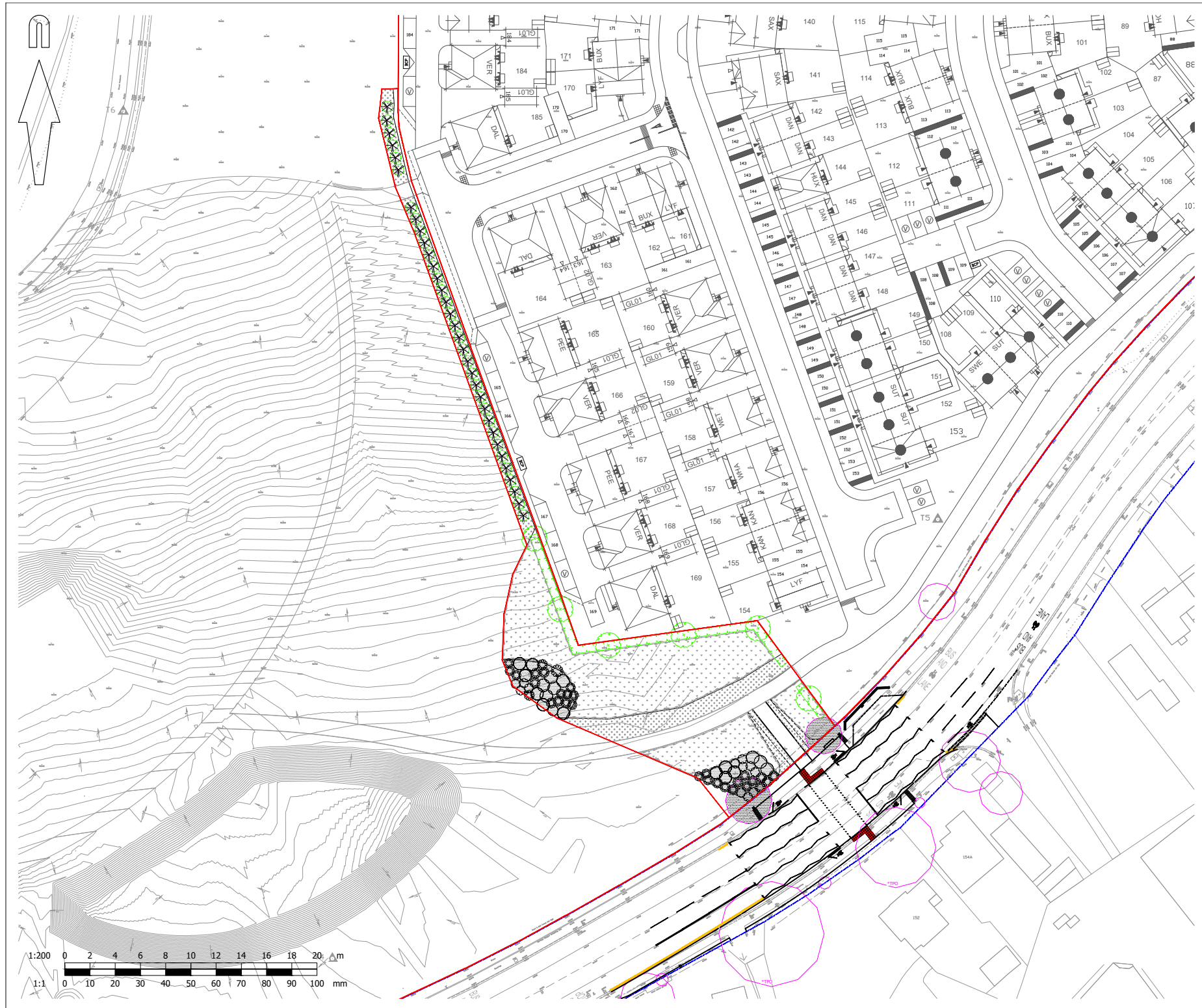
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Portsmouth Harbour RAMSAR

Chichester and Langstone Harbours RAMSAR

Chichester and Langstone Harbours RAMSAR

Chichester and



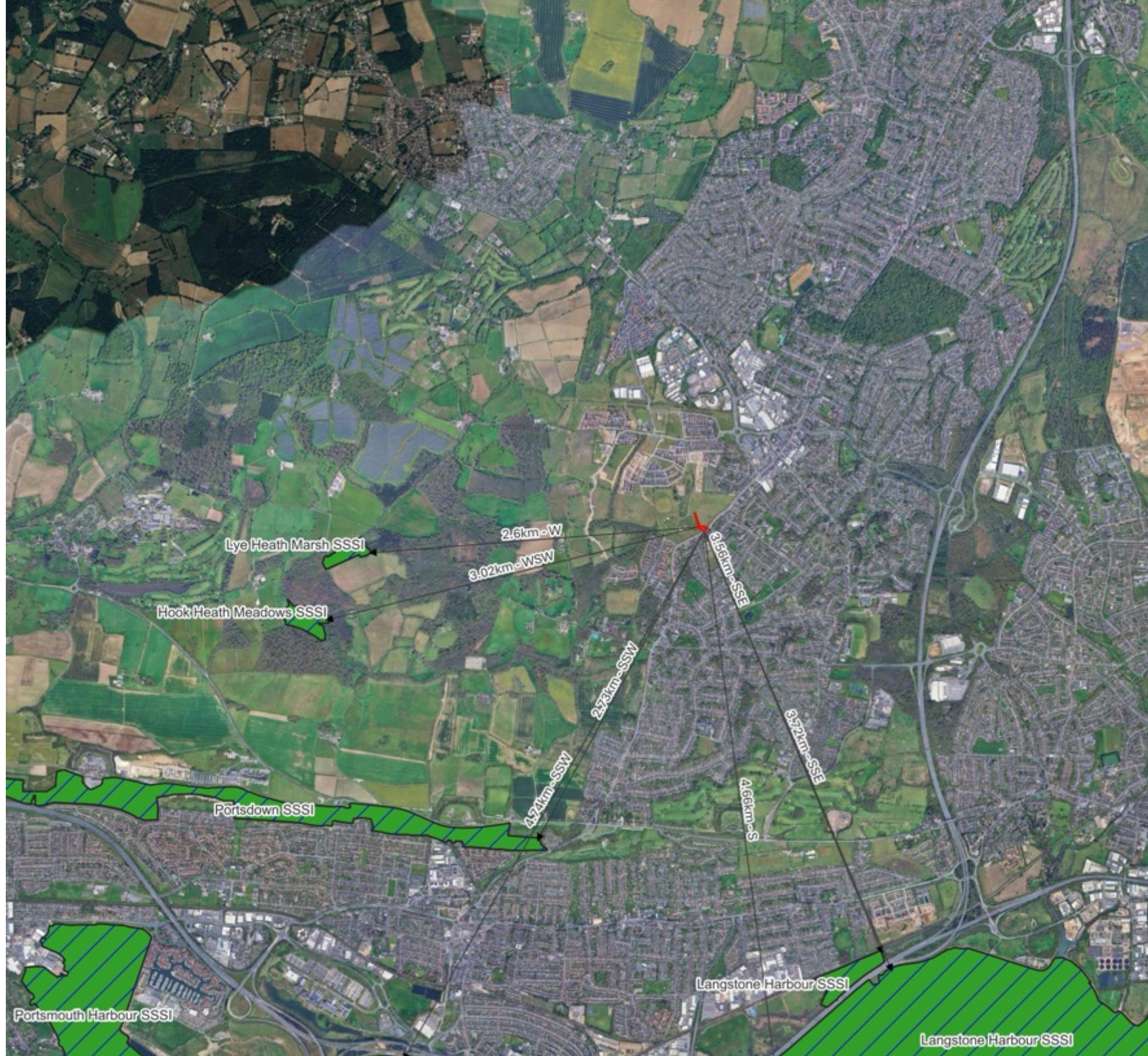


Table 1: Statutory sites within 5 kilometres and non-statutory designated sites located within 2 kilometres of the site

Site name	Conservation status	Distance and direction from site	Reasons for site designation
Chichester and Langstone Harbours	SPA ¹	3.72 km south-east	The SPA qualifies under Article 4.1 for breeding little tern (<i>Sternula albifrons</i>) and sandwich tern (<i>Thalasseus sandvicensis</i>), little egret (<i>Egretta garzetta</i>) and overwintering bar-tailed godwit (<i>Limosa lapponica</i>). This site also qualifies under Article 4.2 for passage ringed plover (<i>Charadrius hiaticula</i>), overwintering black-tailed godwit (<i>Limosa limosa islandica</i>), dark-bellied brent goose (<i>Branta bernicla bernicla</i>), dunlin (<i>Calidris alpina</i>), grey plover (<i>Pluvialis squatarola</i>), redshank (<i>Tringa totanus</i>), and an assemblage of international importance.
	Ramsar ²	3.56 km south-east	Chichester Harbour comprises extensive mud and sandflats that are exposed at low tide. The site is designated as a wetland of international importance and is of particular significance for wintering wildfowl and waders as well as breeding birds both within the Harbour and in the surrounding permanent pasture fields and woodlands.
Portsmouth Harbour	SPA, Ramsar, SSSI ³	4.74 km south west	Portsmouth Harbour SPA qualifies under Article 4.2 for supporting internationally and

¹ SPA: Special Protection Area² Ramsar: Internationally important wetland site³ SSSI: Site of Special Scientific Interest

Site name	Conservation status	Distance and direction from site	Reasons for site designation
			<p>nationally important wintering populations of migratory waterfowl including dark-bellied brent (<i>Branta bernicla</i>), red-breasted merganser (<i>Mergus serrator</i>), black-tailed godwit (<i>Limosa limosa</i>) and dunlin (<i>Calidris alpina</i>).</p> <p>Portsmouth Harbour is a large, industrialised estuary and includes one of the four largest expanses of mudflats and tidal creeks on the south coast of Britain. The mudflats support large beds of narrow leaved and dwarf eelgrass (<i>Zostera sp.</i>), extensive green alga and sea lettuce (<i>Ulva sp.</i>). The site supports internationally important numbers of wintering dark-bellied brent geese and nationally important numbers of grey plover (<i>Pluvialis squatarola</i>), dunlin and black-tailed godwit.</p> <p>Portsmouth Harbour SSSI is designated for its tidal lagoons, mudflats, supporting rare plants, invertebrates and waders. There is also an area of chalk grassland on Horsea island supporting a number of scarce plant species.</p>
Solent Maritime	SAC ⁴	3.72 km south-east	The Solent encompasses a major estuarine system on the south coast of England. Designated for its estuary, salt meadow, coastal lagoons,

⁴ SAC: Special Area of Conservation

Site name	Conservation status	Distance and direction from site	Reasons for site designation
			mudflats. Qualifying species includes Desmoulin's whorl snail (<i>Vertigo moulinsiana</i>).
Lye Heath Marsh	SSSI	2.6 km north west	Lye Heath Marsh supports the following habitats including a mixture of basic flushes, unimproved grassland, alder woodland and dense hedgerows, which combine to form a now rare association of individually restricted habitats.
Portsmouth	SSSI	2.73 km south-west	Portsmouth is notified for its geological importance.
Hook Heath Meadows	SSSI	3.02 km west	Hook Heath Meadows comprise an intimate mixture of woodland and agriculturally unimproved acid pasture lying within a shallow river valley over London Clays. Many of the habitats present are now rare in lowland Britain through agricultural intensification. Their close juxtaposition here is of particular value as an invertebrate habitat.
Langstone Harbour	SSSI	3.72 km south-east	A tidal basin with extensive mudflats, marshland and reedbeds supporting internationally important numbers of overwintering waders.
Newlands Row and Plant Row	SINC ⁵	0.55 km west	Ancient semi-natural woodlands. A site that supports hazel dormouse (<i>Muscardinus avellanarius</i>) populations.
Newlands Farm Meadow	SINC	0.67 km south west	Semi-improved grassland which retain a significant

⁵ SINC: Site of Importance for Nature Conservation

Site name	Conservation status	Distance and direction from site	Reasons for site designation
			element of unimproved grassland.
Marrelsmoor Coppice	SINC	0.7 km south west	Ancient semi-natural woodland. A site that supports hazel dormouse populations.
Marrelsmoor Row	SINC	0.8 km south west	Ancient semi-natural woodland.
Newlease Copse, Havant	SINC	0.88 km south east	Ancient semi-natural woodland.
Alsfordmoor Coppice	SINC	0.93 km south west	Woodland where there is a significant element of ancient semi-natural woodland surviving. They comprise important community types of restricted distribution in the County, such as yew (<i>Taxus baccata</i>) woods and alder (<i>Alnus glutinosa</i>) swamp woods. A site that supports hazel dormouse populations.
London Road Fen	SINC	1.3 km south west	They comprise important community types of restricted distribution in the County, such as yew woods and alder swamp woods. Fens, flushes, seepages, springs, inundation grasslands etc. that support a flora and fauna characteristic of unimproved and waterlogged (seasonal or permanent) conditions.
Purbrook Heath	SINC	1.3 km south west	Agriculturally unimproved grasslands. A site that supports hazel dormouse populations.
Stakes Coppice Remnant 1	SINC	1.3 km south east	Woodland where there is a significant element of ancient semi-natural woodland surviving. Site of nature conservation interest which occur in areas otherwise deficient in such interest,

Site name	Conservation status	Distance and direction from site	Reasons for site designation
			and/or are known to be of particularly high value to local communities e.g. community wildlife sites.
Sheepwash/Tattle/Dunsland Coppices	SINC	1.37 km north west	Ancient semi-natural woodlands. A site that supports hazel dormouse populations.
Sandy and Aldermoor Coppices	SINC	1.65 km south-west	Ancient semi-natural woodlands.
Drivetts Complex	SINC	1.72 km south west	Ancient semi-natural woodlands.
Aldermoor Meadow Part	SINC	1.72 km south-west	Fens, flushes, seepages, springs, inundation grasslands etc. that support a flora and fauna characteristic of unimproved and waterlogged (seasonal or permanent) conditions.
Broomground Coppice/Potwell Coppice	SINC	1.8 km south west	Ancient semi-natural woodlands. Woodland where there is a significant element of ancient semi-natural woodland surviving. They comprise important community types of restricted distribution in the County, such as yew woods and alder swamp woods.
Portsmouth Golf Course West	SINC	1.9 km south	Semi-improved grasslands which retain a significant element of unimproved grassland. Grasslands which have become impoverished through inappropriate management but which retain sufficient elements of relic unimproved grassland to enable recovery
Widley Walk Meadow	SINC	2 km south-west	Agriculturally unimproved grasslands.

Records of protected, notable and invasive species at Berewood

Records of protected, notable and invasive species within a two-kilometre radius of the Berewood site were provided by HBIC (2023). A full copy of the data search can be provided on request, whilst a summary of the most relevant records is provided below:

Amphibians and reptiles

Six records of common toad (*Bufo bufo*), nine records of slow-worm, four records of common lizard, and four records of grass snake were provided.

Birds

Records of 73 protected and/or threatened bird species were provided, the most relevant of these included records of skylark (*Alauda arvensis*), lesser redpoll (*Acanthis cabaret*), kingfisher (*Alcedo atthis*), cuckoo (*Cuculus canorus*), lesser-spotted woodpecker (*Dryobates minor*), yellowhammer (*Emberiza citrinella*), reed bunting (*Emberiza schoeniclus*), hawfinch (*Coccothraustes coccothraustes*), brambling (*Fringilla montifringilla*), linnet (*Linaria cannabina*), little egret (*Egretta garzetta*), snipe (*Gallinago gallinago*), herring gull (*Larus argentatus*), spotted flycatcher (*Muscicapa striata*), house sparrow (*Passer domesticus*), marsh tit (*Poecile palustris*), woodcock (*Scolopax rusticola*), starling (*Sturnus vulgaris*), fieldfare (*Turdus pilaris*), redwing (*Turdus iliacus*), song thrush (*Turdus philomelos*) and mistle thrush (*Turdus viscivorus*), barn owl (*Tyto alba*) and lapwing (*Vanellus vanellus*).

Mammals

Bat records included western barbastelle (*Barbastella barbastellus*), serotine (*Eptesicus serotinus*), Myotis bat species (*Myotis sp*), Brandt's bat (*Myotis brandtii*), Daubenton's bat (*Myotis daubentonii*), whiskered bat (*Myotis mystacinus*), Natterer's bat (*Myotis nattereri*), noctule (*Nyctalus noctula*), pipistrelle bat species (*Pipistellus sp*), common pipistrelle (*Pipistellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), long-eared bat species (*Plecotus sp*), and brown long-eared bat (*Plecotus auritus*).

Three records of badger, 23 records of hedgehog (*Erinaceus europaeus*), and 16 records of hazel dormouse were also provided.

Invertebrates

Records of one protected and 31 UKBAP invertebrate species were provided.

Higher plants

Local records of relevant, notable vascular plant species included green-winged orchid (*Anacamptis morio*), chamomile (*Chamaemelum nobile*) and marsh helleborine (*Epipactis palustris*) were provided.

Invasive species

Records provided of the WCA Schedule 9 invasive plant and fauna species included three-cornered garlic (*Allium triquetrum*), montbretia (*Crocasmia x crocosmifolia*), Japanese knotweed (*Reynoutria japonica*), Himalayan balsam (*Impatiens glandulifera*), variegated yellow archangel (*Lamiastrum galeodbolon sbsp argentatum*), Virginia-creeper (*Parthenocissus quinquefolia*), rhododendron (*Rhododendron ponticum*) and grey squirrel (*Sciurus carolinensis*).

These records of protected, notable and invasive species in the vicinity of the site increase the likelihood of them being present on site where suitable habitat is identified in the field survey.

APPENDIX IV: Habitat survey results

Weather conditions

14.08.25 –Temperature 19°, clear warm, light cool breeze, cloud 60/8, wind 3/12.

Descriptions of the habitats recorded through the site visits are provided below:

Other neutral grassland - g3c

The grassland habitat to be impacted through the construction works is regularly managed with a sward height of approximately 5 to 10 centimetres. Species recorded are presented in table a below. An individual scattered tree was present within the grassland habitat located outside of the red line boundary. This was a fruit tree (*Prunus* sp) measuring 4 metres high with a diameter at breast height of 5 centimetres.

Table A: Species recorded within the other neutral grassland habitat

Common name	Scientific name	Abundance	Status
Grasses, sedges and rushes			
Creeping bent	<i>Agrostis stolonifera</i>	LF	Common and widespread
Cock's-foot	<i>Dactylis glomerata</i>	LF	Common and widespread
Perennial rye-grass	<i>Lolium perenne</i>	F	Common and widespread
Yorkshire-fog	<i>Holcus lanatus</i>	F	Common and widespread
Herbaceous species			
Yarrow	<i>Achille millefolium</i>	F	Common and widespread
Agrimony	<i>Agrimonia eupatoria</i>	LR	Common and widespread
Daisy	<i>Bellis perennis</i>	LO	Common and widespread
Common knapweed	<i>Centaurea nigra</i>	LO	Very common on grasslands
Horsetail sp	<i>Equisetum sp</i>	LR	Common and wide spreading
Common stork's-bill	<i>Erodium cicutarium</i>	LO	Common on waste ground and arable
Lady's bedstraw	<i>Galium verum</i>	LO	Very common in grasslands and hedgebanks

Common name	Scientific name	Abundance	Status
Cut-leaved crane's-bill	<i>Geranium dissectum</i>	LO	Very common in arable, waste ground and hedgebanks
Bristly oxtongue	<i>Helminthotheca echioides</i>	LO	Common and widespread
Perforate St John's-wort	<i>Hypericum perforatum</i>	LR	Common and widespread
Cat's-ear	<i>Hypochaeris radicata</i>	LR	Very common and widespread
Black medick	<i>Medicago lupulina</i>	LO	Very common on grasslands
Ribwort plantain	<i>Plantago lanceolata</i>	LF	Common and widespread
Selfheal	<i>Prunella vulgaris</i>	LO	Very common in grasslands and woodlands
Creeping buttercup	<i>Ranunculus repens</i>	LO	Common and widespread
Common ragwort	<i>Senecio jacobaea</i>	LR	Common and widespread
White clover	<i>Trifolium repens</i>	LO	Common and widespread
Germander speedwell	<i>Veronica chamaedrys</i>	LO	Very common in hedgebanks and grasslands

A grass verge of other neutral grassland was recorded on site measuring less than one metre wide. This was located between the hedgerow and footpath which runs along side the A3 London Road. The grassland was dry with areas of bare ground. Evidence of management was noted. Species recorded include cock's-foot (*Dactylis glomerata*), teasel (*Dipsacus fullonum*), ivy (*Hedera helix*), false oat-grass (*Arrhenatherum elatius*), yarrow (*Achille millefolium*), oak saplings (*Quercus robur*), horsetail (*Equisetum* sp), cat's-ear (*Hypochaeris radicata*), creeping buttercup (*Ranunculus repens*), Yorkshire-fog (*Holcus lanatus*), white clover (*Trifolium repens*), lady's bedstraw (*Galium verum*), perennial rye-grass (*Lolium perenne*), daisy (*Bellis perennis*) and wood avens (*Geum urbanum*).

Mixed scrub – h3

An area of planted scrub is located between the hedgerow and grassland habitat at the south western part. Species present include hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), field maple (*Acer campestre*), dogwood (*Cornus sanguinea*), dog rose (*Rosa canina*) and guelder rose (*Viburnum opulus*). Some bare

earth and woodchip was recorded around the scrub with some species colonising the area including common fleabane (*Pulicaria dysenterica*) and horsetail.

Modified grassland – g4

An area of modified grassland was located north west of the development area. The grassland showed evidence of thatching and was regularly managed with evidence of recreational use during the site visit. Species present included locally abundant cock's-foot, frequent Yorkshire-fog, perennial rye-grass, creeping bent (*Agrostis stolonifera*), and white clover, creeping buttercup, and locally frequent yarrow, dandelion (*Taraxacum officinale* agg) and occasional creeping thistle (*Cirsium arvense*), daisy, ribwort plantain, common mouse-ear (*Cerastium fontanum*) cut-leaved crane's-bill (*Geranium dissectum*), dove's-foot crane's-bill (*Geranium molle*), and locally occasional bird's-foot trefoil (*Lotus corniculatus*), greater plantain (*Plantago major*), and rare occurrences of horsetail species.

Species-rich native hedgerow with trees –

A hedgerow measuring between 5 and 6 metres in height and 2 metres in width comprising hazel (*Corylus avellana*), hawthorn, blackthorn, field maple, elm (*Ulmus* sp), gorse (*Ulex europaeus*), dogwood, a fruit tree (*Prunus* sp) and bramble (*Rubus fruticosus* agg) was present. Standard trees including a pedunculate oak and elm was present within the hedgerow. This hedgerow is considered to be a priority habitat under the NERC Act.



APPENDIX VI: Photographs



Photo 1: Other neutral grassland and species-rich grassland



Photo 2: Other neutral grassland with scattered tree and hedgerow and mixed scrub



Photo 3: Mixed scrub adjacent to hedgerow



Photo 4: Hedgerow with other neutral grassland



Photo 5: Modified grassland



Photo 6: Modified grassland



Photo 7: Modified grassland and footpath



Photo 8: Hedgerow and footpath on southern boundary

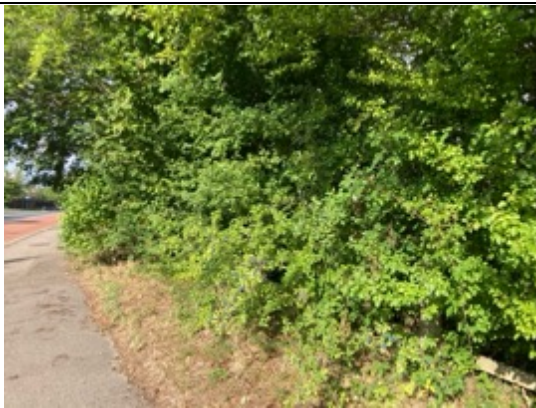


Photo 9: Hedgerow with other neutral grassland verge and footpath along the A3 London Road

APPENDIX VII: Great crested newt - water body locations



APPENDIX XI: Hazel dormouse survey map



APPENDIX XII: Landscape proposals

