

Wrotham Road, Meopham

**Preliminary Ecological Appraisal
Report (PEAR)**



Client:

Richborough

Report Reference:

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EXECUTIVE SUMMARY

- i RammSanderson Ecology Ltd were commissioned by Richborough to undertake a Preliminary Ecological Appraisal to assess the potential ecological constraints to the outline application for the erection of up to 350 residential dwellings, public open space and associated works, (hereafter referred to as the Scheme), located off Wrotham Road, Meopham, Kent.
- ii The survey area included the Site boundary (red line boundary) and the offsite boundary (blue line boundary), collectively referred to as the Scheme boundary. The land within the Site boundary is 15.84ha in size, and the offsite area is 9.93ha, both comprised of primarily cropland with hedgerow and tree boundaries.

Table 1: Executive Summary

Ecological Feature	Potential to be affected by the Scheme	Further Surveys, Assessment or Mitigation Recommended?
Designated Sites	No - North Woods Woodland Special Area of Conservation (SAC) is situated just under 3km east of the Site. However, the Site falls outside the impact risk zone for residential developments.	No - As the Site falls outside the impact risk zone for residential developments, impacts are not anticipated within the SAC.
Habitats	Yes - cropland, grassland, hedgerows and trees will be removed or within the vicinity of the proposed Scheme. Priority habitat deciduous woodland is also present along the southern boundary of the Site.	Yes - Establish a buffer to existing offsite priority woodlands adjacent to the Site boundary, to avoid damage within the root protection area. A Biodiversity Impact Assessment (BIA) is currently underway to demonstrate how the Scheme can achieve 10% biodiversity net gain through habitat enhancement and creation.
Badger	Yes - No badger signs were identified within the Site during the survey, however suitable habitat is present within the Site, and close proximity.	Yes - A badger survey is recommended to establish the extent of badger setts within the Site and 30m of the Scheme boundary, including the woodlands adjacent to the Scheme boundary. This can be undertaken any time of year but ideally would be undertaken in winter when vegetation is at its least dense.
Bats	Yes - A large number of trees are present along the boundaries of the Site which may hold bat roosting potential. Foraging habitat has also been identified, primarily focused along Site boundaries, in the form of hedgerows, trees and woodland.	Yes - Ground level tree assessments (GLTAs) are recommended on trees which will be impacted by the Scheme, to identify the presence of any potential roosting features (PRFs).

Ecological Feature	Potential to be affected by the Scheme	Further Surveys, Assessment or Mitigation Recommended?
		<p>This can be undertaken at any time of year.</p> <p>Night-time bat walkovers and static monitoring are also recommended due to the potential impacts to foraging and commuting bats. This requires a visit during April/May, June/July/August and September/October, amounting to three visits. Static monitoring should be undertaken in each of these periods, for five consecutive nights.</p>
Hazel Dormouse	Yes – Although no records were returned for hazel dormouse, Kent is a stronghold county for the species. Suitable habitat was identified on Site, including hedgerows and trees, which were linked to larger woodland parcels within the landscape. Although no significant clearance of boundary habitats is anticipated, the proximity of the Scheme to suitable habitats suggests impacts are still a risk, such as from increased residential pressures.	Yes – Hazel dormouse surveys are recommended to identify presence/absence of the species within the Site. This consists of five visits between May and September, with an initial setup of dormouse tubes in April.
Otter and Water Vole	No – No features suitable for otters or water voles, such as water courses, were identified within the Site or within the local landscape.	No
Great Crested Newt	Yes – Although no records of GCN were returned within the desk study, and dominant habitats on Site were largely low in suitability for terrestrial GCN, absence cannot be ruled out in suitable habitats, such as hedgerows on the Sites boundary.	Yes – A precautionary approach to vegetation clearance is recommended during the construction phase of the Scheme, formalised within a PMW/CEMP
Reptiles	Yes – The dominant cropland habitats on Site were largely low in suitability for significant reptile populations, with the most suitable foraging, commuting and refuge opportunities coming from the boundary habitats. Therefore, absence cannot be ruled out.	Yes – A precautionary approach to vegetation clearance is recommended during the construction phase of the Scheme, formalised within a PMW/CEMP
Birds	Yes – Skylarks were noted within the Site during the February wintering bird survey, with much of the Site being comprised of suitable breeding habitat for this species. The boundary habitats were noted for their suitability in supporting common and widespread bird species.	Yes – Four breeding bird surveys are recommended to identify the breeding bird assemblage within the Site, with a focus on ground nesting birds such as skylark. These should be undertaken between

Ecological Feature	Potential to be affected by the Scheme	Further Surveys, Assessment or Mitigation Recommended?
	It should be noted that two wintering bird surveys were undertaken, in January and February. However, propane fuelled bird scarers were in operation on both visits, and diversity was noted to be low on both surveys, so additional wintering bird surveys have been scoped out.	Mid-April and Mid-June, commencing at sunrise.
Terrestrial Invertebrates	No – Habitats within the Site are generally poor in floral diversity, presenting limited foraging and sheltering opportunities. Enhancement and habitat creation as part of the Scheme is anticipated to improve the overall suitability of the Site for general terrestrial invertebrate populations.	No
Aquatic Invertebrates	No – No suitable habitats for aquatic invertebrates were identified within the Site or functionally connected to the Site within the local landscape.	No
Fish	No – No suitable habitats for fish were identified within the Site or functionally connected to the Site within the local landscape.	No
Other Notable Species	Yes – The Site holds suitable habitats for other notable species, such as hedgehogs and common toads, which were both recorded within the Study Area. Suitability is mostly focused within the boundary habitats.	Yes – Best practice measures should be adhered to during the construction phase to limit the risk of impacting individual notable species that may be utilising or transiting through the Site. This should be formalised within a PMW/CEMP

- iii Enhancements, unrelated to biodiversity net gain, that can be incorporated into the Scheme include inclusion of bat and bird boxes within designs of the residential units and implementation of habitat corridors and hedgehog highways into the overall Scheme design.

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1 INTRODUCTION

1.1 Terms of Reference

- i RammSanderson Ecology Ltd (RS) were commissioned by Richborough to undertake a Preliminary Ecological Appraisal (PEA) to assess the potential ecological constraints to the outline application for the erection of up to 350 residential dwellings, public open space and associated works, approval is sought for the principal means of vehicular access from Wrotham Road and all other matters are reserved (hereafter referred to as the Scheme), located within the village of Meopham, Kent. All land situated within the red line of the Scheme is hereafter referred to as the Site. All land situated within the blue line of the Scheme, is hereafter referred to as the offsite boundary. Collectively, these two areas are hereafter referred to as the Scheme boundary and is shown on Figure 1.
- ii The PEA has been undertaken with reference to current good practice¹ and forms part of the technical information commissioned by Richborough in connection with the Scheme. The results of the PEA are presented in this PEA report (PEAR), which addresses relevant wildlife legislation and planning policy as summarised in Appendix 1. The PEAR is consistent with the requirements of British Standard 42020:2013 *Biodiversity. Code of Practice for Planning and Development*.
- iii This PEAR is intended for advice in respect of Scheme design, Site layout and / or Site investigation. Further ecological surveys and / or ecological impact assessment (including detailed mitigation measures) may be required in connection with a planning application or to contribute to an Environmental Impact Assessment once the Scheme proposals have been finalised and any required surveys have been completed.

1.2 The Scheme

- i The Scheme is comprised of a proposed housing development within the Site boundary, with 350 units proposed, along with associated public open space, access roads and other infrastructure, as well as new access points.

1.3 The Site

- i The Site is located within the village of Meopham, Kent at Ordnance Survey national grid reference TQ 64600 66659 and is approximately 15.84 ha in size.
- ii The Site comprises primarily cropland habitats, with modified grassland margins, bordered by either hedgerows or trees. The Site is bounded by areas of woodland, additional cropland and residential areas, and the wider area consists of further agricultural and residential areas.

1.4 Scope of the Preliminary Ecological Appraisal

- i This PEAR presents ecological information obtained during the following:

¹ CIEEM (2017). Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

- A desk-study undertaken on 04/02/2025 to obtain records of designated sites, notable habitats² and protected and notable species³ up to 2 km of the Site (the area covered by the desk study is hereafter referred to as the Study Area); and,
 - A walkover survey of accessible land within and adjacent to the Site and offsite boundaries (the area covered by the survey is hereafter referred to as the Survey Area) on 26/02/2025.
- ii The purpose of the PEAR is to provide a high-level ecological appraisal of the Site, specifically to:
- establish baseline conditions and determine the presence of Important Ecological Features (IEF)⁴ (or those that could be present), as far as is possible;
 - to identify potential ecological constraints to the Scheme and make initial recommendations to avoid impacts on IEFs, where possible;
 - to identify requirements for mitigation, where possible, including mitigation measures that will be required and those that may be required (depending on results of further surveys or final Scheme design);
 - to establish any requirements for more detailed surveys; and,
 - to identify any opportunities offered by the Scheme to deliver biodiversity enhancements.
- iii The methodology followed for undertaking the desk study and field surveys is detailed in Appendix 2.

² Notable habitats are taken as principal habitats for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; habitats listed under the Kent Biodiversity Action Plan (BAP); hedgerows identified as being 'important' under the wildlife criteria of the Hedgerow Regulations 1997, ancient woodlands and veteran trees.

³ Notable species are taken as principal species for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; any species listed in an IUCN Red Data Book; and any other species listed under the Kent BAP.

⁴ Important Ecological Features are habitats, species, ecosystems and their functions and processes that are of conservation importance and could potentially be affected by the Scheme.

2 BASELINE CONDITIONS, CONSTRAINTS AND RECOMMENDATIONS

2.1 Surveyor Competence

- i The walkover survey was led by George Hicks, whom has been a professional ecologist for 7 years and has the required competencies (Chartered Institute of Ecology and Environmental Management) to undertake this type of survey.

2.2 Limitations to the Assessment

- i General limitations to undertaking desk and field-based assessments are provided in Appendix 2. Specific limitations to the assessment are detailed below:
- The habitat survey was undertaken outside of the core floristic season (April – October) meaning a full floral species list was not possible to obtain at the time of survey. However, it is deemed that the habitats were still able to be fully characterised based on observations during the survey
 - Propane gas gun bird scarers were located in multiple locations across the Site during two visits, in January and February, to protect the young crops. As this was present across multiple wintering bird visits, the suitability of the Site for wintering birds was lower than expected and further surveys were scoped out.

2.3 Designated Sites

2.3.1 Desk Study

- i Table 2 summarises the designated sites situated within the Study Area.

Table 2. Designated Sites within Study Area

Site Name	Designation	Location ⁵	Brief Description
North Downs Woodlands	SAC ⁶	2.8km E	Broad-leaved woodland, dry grassland and coniferous woodland. Designated for Annex 1 habitats: Asperulo-Fagetum beech forests, Taxus baccata woods and semi-natural dry grasslands and scrublands on calcareous substrates.
Henley Wood & Pasture	LWS ⁷	0.7km SE	Ancient Woodland and Deciduous Woodland Priority Habitat
Happy Valley, Meopham	LWS ⁶	0.9km S, additional two parcels further south.	Contains Ancient woodland, Ancient Replanted Woodland, Deciduous Woodland and Lowland Calcareous Grassland Priority Habitats.
Strawberry Hill, Pasture & Woodland, Meopham	LWS ⁶	1.1km SE	Ancient Woodland and Deciduous Woodland Priority Habitat
Elbow Wood etc, Meopham	LWS ⁶	1.2km SW	Ancient Woodland, Deciduous Woodland and Lowland Calcareous Grassland Priority Habitats.

⁵ Where designated sites are situated outside of the Site boundary, the distance and direction are given at the closest point of the designated site from the Site

⁶ SAC – Special Area of Conservation

⁷ LWS – Local Wildlife Site

Site Name	Designation	Location ⁵	Brief Description
Nurstead and Cozendon Woods, Nash Street	LWS ⁶	1.5km N, additional one parcel connected but further north.	Ancient Woodland and Deciduous Woodland Priority Habitat
Pasture and woods south of Luddesdown	LWS ⁶	1.8km SE	Ancient Woodland, Deciduous Woodland and Lowland Calcareous Grassland Priority Habitat
Hartley Wood	LWS ⁶	1.9km NW	Deciduous Woodland Priority Habitat
Pasture south of Istead Rise	LWS ⁶	1.9km NW	-
Longfield Road (East)	RNR ⁸	0.4km NW	-
Longfield Road (West)	RNR ⁷	1.3km NW	-
Wrotham Road	RNR ⁷	1.3km N	Overlaps with Nurstead and Cozendon Woods, Nash Street LWS and Ancient Woodland.

2.3.2 Field Survey

- ii No designated sites were identified within the Survey Area.

2.3.3 Constraints and Recommendations

- iii The Site is situated just under 3km to the west of the North Downs Woodlands SAC, designated for beech forests, yew woodlands and semi-natural dry grasslands that are important orchid sites. The habitats listed within the designations were not identified within the Site, or immediately adjacent to the Site. Due to the distance from the Site, the Scheme is not anticipated to have any direct impacts to the SAC during the construction phase, although there may be increased recreational pressures on the designated Site by the proposed Scheme. However, the Site falls outside the impact risk zone for residential developments, highlighting that increased pressures are anticipated to be negligible and further consultation or Habitat Regulation Assessments (HRA) are not deemed necessary.
- iv The Site does not fall within 2km of a statutory designated Site. The closest non-statutory designated Site is Longfield Road (East) Roadside Nature Reserve, 0.4km northwest of the Site. No impacts are anticipated to this designated Site, or those further afield, by the proposed Scheme due to the relatively small works footprint within the landscape, with no anticipated large-scale impacts outside the Site boundary.

⁸ Roadside Nature Reserve

2.4 Habitats

2.4.1 Desk Study

i Table 3 summarises the records of notable habitats and protected or notable flora⁹ (including veteran trees¹⁰) within the Study Area.

Table 3. Notable Habitats and Protected and Notable Flora within Study Area

Habitat/ Flora Feature	Reason for Conservation Interest	Location ¹¹	Desk Study Comments
Rabbit Wood	Ancient Woodland	0.3km NW, an additional parcel to the west of the Site.	Scattered areas of Ancient and Semi-Natural woodland to NW, S, SW and E of Site boundary
Little Monkreed Wood	Ancient Woodland	0.9km NW	
Brimstone Wood	Ancient Woodland	1.km SE, an additional parcel to the south.	
Nine Acre Bank Shaw	Ancient Woodland	1km S, additional two parcels south and southwest.	
Henley Wood	Ancient Woodland	1km E	
Dunstan Wood	Ancient Woodland	1.2km S, an additional parcel southwest.	
Ten Acre Shaw	Ancient Woodland	1.2km SE	
Selbyfield Shaw	Ancient Woodland	1.2km SE	
Southdown Wood	Ancient Woodland	1.2km NW	
Elbows Wood	Ancient Woodland	1.3km SW	
Gorse Wood	Ancient Woodland	1.3km NW	
Horn's Oak Wood	Ancient Woodland	1.4km S	

⁹ For this assessment 'flora' includes vascular and non-vascular plants, fungi and lichens.

¹⁰ For this assessment the definition of a veteran tree is taken from Annex 2 of the National Planning Policy Framework (glossary): "A tree which, because of its great age, size or condition is of exceptional value for wildlife, in the landscape, or culturally."

¹¹ Where features are situated outside of the Site boundary, the distance and direction is given at the closest point of the designated site from the Site

Habitat/ Flora Feature	Reason for Conservation Interest	Location ¹¹	Desk Study Comments
Valleys Shaw	Ancient Woodland	1.4km SW, an additional parcel southwest.	
Nurstead Wood	Ancient Woodland	1.5km N	
Cozendon Wood	Ancient Woodland	1.8km N	
Dell Wood	Ancient Woodland	1.8km W	
Redsteadle Wood	Ancient Woodland	1.8km W	
Purvil Wood	Ancient Woodland	1.8km SE	
Steele's Wood	Ancient Woodland	1.8km S	
Cowcrofts Wood	Ancient Replanted Woodland	1.8km S	
Deciduous Woodland	Priority Habitat	Adjacent to Site; small area just outside the southeastern corner of the Site (Eastern Site parcel). Additional 86 ¹² parcels to the north, south, east and west of the Site.	Scattered areas of Deciduous Woodland. Some overlap with Ancient Woodland.
Woodpasture and Parkland	May support ancient woodland, ancient trees and veteran trees.	0.2km E	Overlaps with Deciduous Woodland.
Traditional Orchards	Priority Habitat, LBAP	Closest 0.5km NE, additional 12 ¹³ parcels to the northeast, southeast and south	Small in extent scattered areas of Traditional Orchards
Lowland Calcareous Grassland	Priority Habitat	1.3km S, additional 5 ¹⁴ parcels south, southeast and southwest.	Exists adjacent to areas of Ancient Woodland. SE parcel overlaps

¹² Six parcels are considered 'no main habitat but deciduous woodland present' by MAGIC.

¹³ Two parcels are considered 'no main habitat but traditional orchards present' by MAGIC.



¹⁴ Two parcels are considered 'no main habitat but lowland calcareous grassland present' by MAGIC.



Habitat/ Flora Feature	Reason for Conservation Interest	Location ¹¹	Desk Study Comments
			with Deciduous Woodland.
Good Quality Semi-improved grassland	May be botanically species rich.	1.8km SE, an additional parcel SE	Very small in extent area present adjacent to Lowland Calcareous Grassland and Deciduous Woodland to SE.
Bluebell	Schedule 8 of Wildlife and Countryside Act	0.08km NE	


2.4.2 Field Survey

- ii Summary descriptions of the habitats within the Survey Area are provided below in Table 4 and shown on Figure 2, with specific features highlighted by target notes (TNs).
- iii Habitat types detailed are listed in order of the UKHab Survey Handbook (UKHab Ltd, 2023). The species list provided in this report reflect only those taxa observed during the survey and are not an exhaustive list of all species that may be present, as the survey only provides a snapshot of the Site.

Table 4: Habitats within Survey Area

Habitat	Description	Area (m ²)	Proportion of Site (%)	Ecological Importance & Outcome of Proposal	Photograph
g4 Modified grassland	<p>In multiple areas around the Site, the dominate cropland habitat was bordered by modified grassland strips. The sward was generally low with evidence of vehicle tracks in places.</p> <p>These strips were generally dominated by perennial rye grass, with abundant examples of cocks foot, dandelion nettle and creeping buttercup. Frequently, spear thistle and broadleaved dock was observed. Bristly oxtongue, ragwort and hogweed was noted occasionally, with rare examples of winter heliotrope.</p>	4162	16.86	<p>Limited ecological value due to the lack of floral diversity, vehicle tracking through the grass and limited spread of the habitat within the Site. This habitat is mostly noted for its suitability for commuting and foraging mammals, such as badger.</p> <p>This habitat is likely to be retained and enhanced throughout the Site.</p>	
cd18 Other non-cereal crops	<p>The Site was dominated by non-cereal cropland, covering over three quarters of the Site area.</p>	19351	78.4	<p>Limited ecological value due to the current management, presence of bird scaring devices, lack of floral diversity and openness of the habitat. Mostly noted for its suitability to support commuting and foraging mammals, such as badger. May also support ground nesting birds once the bird scaring devices are no longer in use.</p> <p>This habitat is due to be developed as part of the proposed Scheme, or enhanced.</p>	

Habitat	Description	Area (m ²)	Proportion of Site (%)	Ecological Importance & Outcome of Proposal	Photograph
w1g Other broadleaved woodland	A small woodland strip was present along the northern boundary, separating the field from the road. The woodland was comprised of a mix of ash, horse chestnut, oak and sycamore. The understory was abundant with cleavers and ivy, with frequent lords and ladies and holly. Occasionally daffodils, rose and snowdrops were present.	1035	4.19	<p>Ecologically valuable. May be suitable for roosting and commuting bats, foraging and sheltering mammals, nesting birds and hazel dormouse.</p> <p>This is currently proposed to be mostly retained, with some areas cut through as potential access points.</p>	
h2a6 Other native hedgerow	<p>One native hedgerow was located within the Site, running through the cropland in the east of the Site.</p> <p>This was a recently planted hedgerow comprised of hazel, blackthorn, sycamore, elm, silver birch and holly, most likely planted within the last five years.</p>	N/A	N/A	<p>Ecologically valuable. Provides a commuting and foraging corridor for a range of species, such as terrestrial mammals and bats, commuting and refuge for amphibians and reptiles and nesting habitat for birds.</p> <p>This is to be retained and enhanced as part of the proposed Scheme.</p>	

Habitat	Description	Area (m ²)	Proportion of Site (%)	Ecological Importance & Outcome of Proposal	Photograph
h2b Non-native and ornamental hedgerow Secondary code: 516 Active management	A hedgerow planted along a residential garden boundary. The hedgerow has been shaped previously, suggesting active management throughout the year. The hedgerow was comprised of cherry laurel and holly.	N/A	N/A	<p>Ecologically valuable. Provides a commuting and foraging corridor for a range of species, such as terrestrial mammals and bats, commuting and refuge for amphibians and reptiles and nesting habitat for birds.</p> <p>This is likely to be retained as part of the proposed Scheme.</p>	

2.4.1 Constraints and Recommendations

- iv Priority deciduous woodland has been recorded adjacent to the Site. Despite its proximity to the proposed Scheme, no direct clearance of the woodland is anticipated. To reduce the potential impact to the woodland, specifically regarding groundworks, a buffer should be adhered to, to avoid the root protection area of the trees along the woodland edge.
- v Within the Site, habitats are noted as being generally common and widespread habitats with limited floral diversity, subject to an intense management regime due to the agricultural nature of the Site. Although much of these areas will be subject to modification as part of the proposed Scheme, the Site has opportunities for habitat creation and enhancement. Details of this can be seen as part of a biodiversity impact assessment (BIA), which will be issued separately to this report.

2.5 Badger

2.5.1 Desk Study

- i There are nine recent records of badger within the Study Area. The closest/ most relevant of these records is approximately 0.85km from the Site boundary.

2.5.2 Field Survey

- ii No Badger evidence was observed within the Site during the survey.
- iii However, habitats were noted within the Site as having suitability for foraging, commuting and sett building, such as the woodland and hedgerows.

2.5.3 Constraints and Recommendations

- iv Although no field evidence was observed during the survey, the presence of badgers within the Site is likely due to the suitable habitat identified within the Site and close proximity. As such, it is recommended that a badger survey is undertaken.

2.6 Bats

2.6.1 Desk Study

- i There are 10 recent records of bat roosts within the Study Area. The closest/ most relevant of these records is associated with a Leisler's roost of 72 individuals, a noctule roost of 17 individuals and a soprano pipistrelle roost of 38 individuals which are approximately 0.34km east from the Site boundary. A common pipistrelle roost of 95 individuals was also identified 0.37km southwest of the Site, and a serotine roost of 12 individuals was identified 0.38km northeast of the Site.
- ii No records of granted European protected species licences (EPSL) for bats were identified within the Study Area.

2.6.2 Field Survey

- iii No buildings were located within the Site boundary.
- iv Multiple mature trees were identified within the Site and along the Site boundaries, including the woodland strip. Although no specific features were identified during the survey, these trees have the potential to support potential bat roosting features.
- v The open cropland that is dominant on Site is deemed to be of negligible foraging suitability, due to the open nature of the habitat, with little floral diversity. Some boundary habitats were noted as being of low suitability, specifically around the A227 road, and the urban areas of Hook green, due to the high baseline of urban disturbance in the form of light spill and noise. However, moderate suitability commuting features were

present, such as the woodlands adjacent to the Scheme boundaries, which also connect to other higher value features within the landscape.

2.6.3 Constraints and Recommendations

- vi There has been a high number of mature trees that may be impacted by the proposed Scheme, either within the Site or the adjacent areas. It is recommended that, once designs have progressed to a state where it is clear which trees will be impacted, these trees are subject to ground level tree assessments (GLTAs) to identify the presence of potential bat roosting features. Where bat roosting features are identified further surveys/investigation will be required.
- vii As the boundary habitats have been identified as having suitability for foraging and commuting bats, further activity surveys are recommended in the form of night-time bat walkovers and static monitoring. As the majority of the Site has been identified as low suitability for foraging and commuting due to the predominance of cropland habitat, three night-time bat walkovers are recommended (one in April/May, one in June/July/August and one in September/October). These should be supported with static monitoring in each of the defined seasons, for five consecutive nights.

2.7 Hazel Dormouse

2.7.1 Desk Study

- i There are no recent records of hazel dormouse within the Study Area.

2.7.2 Field Survey

- ii No evidence of hazel dormouse was identified during the survey.
- iii However, habitats within the Site, and immediately adjacent to the Site, were identified as having suitability for hazel dormouse, specifically within the boundary hedgerows, trees and the woodlands just off Site. These habitats are also connected to other woodland parcels within the wider landscape via hedgerows.

2.7.3 Constraints and Recommendations

- iv Although no recent records of hazel dormouse were returned within the Study Area, Kent has been identified as a county in which hazel dormouse are frequently observed. Therefore, as suitable habitats have been identified on, or within the vicinity of the Site, absence cannot be ruled out. Although direct impacts from a future construction phase are not anticipated due to the retention of boundary habitats, impact risks are still present from a potential increase in residential pressures, such as cats, within the Scheme boundary.
- v Therefore, it is recommended that further surveys are undertaken to identify if the species is present within the Site. This includes a survey visit per month between May and September, with an initial deployment of dormouse tubes in April.

2.8 Otter and Water Vole

2.8.1 Desk Study

- i There are no recent records of otter within the Study Area.
- ii There are no recent records of water vole within the Study Area.
- iii No watercourses were identified within 500m of the Site, within the Study Area.

2.8.2 Field Survey

- iv No features were identified within the Site, or immediately adjacent, that could support either otter or water vole, such as watercourses.

2.8.3 Constraints and Recommendations

- v As there were no features within the Site, or Study Area, that could support otter or water vole, and a lack of records were returned from the Study Area, the suitability of the Site to support either species is considered to be negligible. Therefore, no further survey or mitigation requirements are recommended.

2.9 Great Crested Newt

2.9.1 Desk Study

- i There are no recent records of great crested newts (GCN) within the Study Area, nor licence returns or pond surveys for GCN.
- ii A total of one water body was present within 250m of the Site, as seen on Figure 3.

2.9.2 Field Survey

- iii No features within the Site were identified that could support breeding GCN.
- iv The dominant cropland habitat throughout the Site was observed as being negligible for terrestrial GCN suitability due to the open, exposed nature of the habitat with limited refuge opportunities.

2.9.3 Constraints and Recommendations

- v As there are no recent records of GCN within the Study Area, a limited number of ponds in the landscape and a predominantly habitat type deemed negligible for GCN throughout the Site, further surveys are deemed disproportionate.
- vi However, as there are some areas of low suitability, such as the boundary hedgerows which can provide commuting corridors, foraging and shelter opportunities, absence cannot be fully ruled out. Therefore, it is recommended that construction works proceed utilising a Precautionary Methods of Works (PMW) or Construction Ecological Management Plan (CEMP) to limit the risk to individuals that may be transiting through the Site. In the unlikely even a GCN is uncovered, works should cease and further guidance should be sought from a qualified ecologist.

2.10 Common Species of Reptile

- i 'Common species of reptile' refers to common lizard, slow worm, adder and grass snake. The Site is located outside of the known range of smooth snake and sand lizard and these species are not considered in this report.

2.10.2 Desk Study

- ii There are four recent records of common lizard, slow worm, and grass snake within the Study Area. The closest / most relevant of these records is associated with a grass snake which is approximately 0.82km from the Site boundary. No records of adder were returned within the Study Area.

2.10.3 Field Survey

- iii The predominant cropland habitat observed on Site was deemed to have limited suitability for reptiles due to the openness and lack of shelter throughout the Site. Boundary habitats, such as the hedgerows, as well as the woodlands just off-site were considered to hold suitable opportunities for commuting, foraging and refuge.

2.10.4 Constraints and Recommendations

- iv Due to large portions of dominant cropland habitat, with the majority of the suitable habitat being confined to the Site boundaries, it is unlikely that a significant population of reptiles is present within the Site. Therefore, further surveys for reptiles are deemed disproportionate.

- v However, as absence cannot be fully ruled out, it is recommended that a precautionary approach is adopted during the construction phase of the project, to limit the risk to individuals that may be transiting through the Site. Best practice should be adhered to for reptiles, formalised within a PMW/CEMP.

2.11 Birds

2.11.1 Desk Study

- i There are recent records for 15 notable¹⁵ bird species within the Study Area. These include one species listed on Annex I of the EC Birds Directive 1994, five species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), three Species of Principal Importance (SPI), six species on the Conservation Concern 5 (BoCC5) Red list (Stanbury, 2021) and six species on the BoCC5 Amber list. The records also include one species of bird, swift, that are a priority species in Kent listed on the Kent BAP.

2.11.2 Field Survey

- ii The Site was noted for its suitability for ground nesting birds, such as skylarks, due to the predominance of arable cropland throughout the Site, as well as common and widespread birds within the boundary hedgerow habitats.

2.11.3 Constraints and Recommendations

- iii Wintering bird surveys were commissioned as part of the phase 2 survey recommendations. However, during both visits, one in January and one in February, propane fuelled bird scarers were noted to be in use across the Site during the winter period. As the bird assemblage across these two surveys was relatively limited, further surveys were scoped out. Details of these surveys can be seen in Figures 4 and 5.
- iv As skylarks were identified during one of the survey visits, and the Site was noted for its suitability for ground nesting birds, further surveys are recommended to identify the number of skylark territories during the breeding season. It is recommended that four survey visits are undertaken between Mid-April and Mid-June, with surveys starting at sunrise. It is assumed that bird scarers won't be present during this period due to the establishment of the crop.

2.12 Terrestrial Invertebrates

2.12.1 Desk Study

- i There are 42 recent records of notable¹⁶ terrestrial invertebrates within the Study Area. The closest / most relevant of these records is associated with a ghost moth which is approximately 0.34km from the Site boundary.

¹⁵ Notable bird species are taken as those listed: on Annex I of the EC Birds Directive (2009/147/EC); on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); as Species of Principal Importance (SPI) for the Conservation of Biodiversity in England listed in Section 41 of the Natural Environment and Rural Communities Act 2006; as Red or Amber in the Birds of Conservation Concern (BoCC) 4 (Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015). Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708-746); bird species or groups listed under the Kent BAP.

¹⁶ Notable terrestrial invertebrates are taken as principal species for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; any invertebrate listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); any invertebrate listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended); any invertebrate listed in the IUCN Invertebrate Red Data Book (1991); and any invertebrate listed under the Kent BAP.

2.12.2 Field Survey

- ii The Site was noted for its low suitability to support a significant notable population of invertebrates due to the predominance of the cropland habitat, with limited floral diversity. The hedgerows within the Scheme boundary and woodland present outside the Scheme boundary were noted for their higher suitability to support notable invertebrates; however, floral diversity was still deemed low.

2.12.3 Constraints and Recommendations

- iii Although there was a variety of records returned within the Study Area for notable invertebrates, the dominant habitats on Site present limited opportunities to support notable invertebrate populations. Therefore, further surveys are deemed disproportionate and there are no further recommendations.
- iv As the Site's habitat baseline is relatively low, habitat enhancement and creation that would be proposed to achieve 10% mandatory net gain, would also be beneficial to colonising invertebrates within the landscape. It is anticipated that the completed Scheme would be overall beneficial to invertebrate populations.

2.13 Aquatic Invertebrates (including White-clawed Crayfish)

2.13.1 Desk Study

- i There are no recent records of notable¹⁷ aquatic invertebrates (including white-clawed crayfish) within the Study Area.

2.13.2 Field Survey

- ii No features suitable for aquatic invertebrates were identified within the Site, or within the vicinity of the Site.

2.13.3 Constraints and Recommendations

- iii As no features were identified within the Site, and no significant water courses or waterbodies were identified within the Study Area with connectivity to the Site, no further surveys or mitigation is recommended.

2.14 Fish

2.14.1 Desk Study

- i There are no recent records of fish within the Study Area.

2.14.2 Field Survey

- ii No features suitable to support Fish were identified within the Site, or within the vicinity of the Site.

2.14.3 Constraints and Recommendations

- iii As no features were identified within the Site, and no significant water courses or waterbodies were identified within the Study Area with connectivity to the Site, no further surveys or mitigation is recommended.

¹⁷ Notable aquatic invertebrates are taken as principal species for the conservation of biodiversity under Section 41 of the Natural Environment and Rural Communities Act 2006; any invertebrate listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); any invertebrate listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended); any invertebrate listed in the IUCN Invertebrate Red Data Book (1991); and any invertebrate listed under the Kent BAP.

2.15 Other Notable Species

2.15.1 Desk Study

- i There are 15 recent records of other notable species¹⁸ within the Study Area. The closest / most relevant of these records is associated with common toads and hedgehogs which were approximately 0.23km from the Site boundary.

2.15.2 Field Survey

- ii Habitats identified during the Survey that could provide suitability for other notable species were mostly restricted to the boundary habitats, such as the hedgerows. These habitats provide foraging and refuge opportunities for both species identified within the Study Area, as well as connectivity into the wider landscape.

2.15.3 Constraints and Recommendations

- iii As the Site holds suitability for other notable species, such as hedgehogs and common toads, a precautionary approach is recommended to limit the risk to individuals utilising the Site for foraging, commuting or sheltering. Best practice should be adhered to for mammals and amphibians, formalised within a PMW or CEMP.

¹⁸ Notable species are taken as principal species for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; any species listed in an IUCN Red Data Book; and any other species listed under the Kent BAP that are not referred to in previous sections of the report.

3 OPPORTUNITIES FOR ENHANCEMENTS

- i This section highlights opportunities for providing ecological enhancements, based on the current Scheme details. These would need to be developed in greater detail once further surveys have been completed and the Scheme proposals, such as detailed areas of habitat loss are confirmed.
- ii The following enhancements below could be delivered for biodiversity as part of the Scheme, that don't contribute towards the calculation of biodiversity net gain but can still deliver significant improvements for local wildlife.
- iii Any landscape planting associated with the Scheme should consider the use of native shrub species and also species such as lavender which provide important sources for pollinating species. The Royal Horticultural Society provide online resources to identify suitable plants for garden areas that are aesthetically pleasing but of significant value to local pollinators (www.rhs.org.uk/plantsforpollinators).
- iv Consideration to the provision of bat and bird boxes could also be given in respects to the new building. Use of in-cavity boxes such as Ibstock Enclosed Bat Box C provide a long term nest box solution incorporated into the building.
- v Consideration to commuting pathways is to be encouraged to allow for the connection of the different habitats to the wider landscape. This could be done by hedge or scrub planting. Another way to connect the different habitat could be targeted maintenance/ mowing of the Site, leaving some areas longer to provide cover for commuting species, such as hedgehogs.

4 SUMMARY

- i This PEAR is based on a desk study and ecological surveys undertaken on 04/02/2025 and 26/02/2025 respectively, to assess the ecological constraints to the Scheme and to provide advice in respect of Scheme design, site layout and / or site investigation.
- ii The following further surveys, summarised in Table 6, are recommended to support the outline planning application for the development of 350 residential units and associated soft and hard landscaping.

Table 5: Summary of Recommendations

Ecological Feature	Recommendation	Timing
Habitats	Establish a buffer to existing offsite priority woodlands adjacent to the Site boundary.	During the construction phase
	Include habitat enhancements and creation within the Scheme designs to achieve a minimum of 10% biodiversity net gain, formalised within a biodiversity impact assessment (BIA).	Currently on-going
Badger	A badger survey to establish the extent of badger setts within 30m of the Site boundary.	Any time of year, ideally during winter/early spring before vegetation becomes too dense.
Bats	Ground level tree assessments (GLTA) surveys of trees which are anticipated to be impacted by the Scheme to identify potential bat roosting features.	Any time of year, ideally during winter before vegetation obscures the tree.
	Night-time bat walkovers and static monitoring is recommended to identify bat activity throughout the Site and along the Site boundaries.	Three survey visits, one in April/May, one in June/July/August and one in September/October. Static monitoring should be undertaken for five consecutive nights in each of those survey periods.
Hazel Dormouse	Further surveys are recommended to identify presence/absence.	Five visits are recommended, once a month, between May and September, with an initial visit in April to set up dormouse tubes.
Great Crested Newt	A precautionary approach to vegetation clearance is recommended during the construction phase, formalised within a PMW/CEMP.	During the construction phase.
Reptiles	A precautionary approach to vegetation clearance is recommended during the construction phase, formalised within a PMW/CEMP.	During the construction phase.
Birds	Although Wintering Bird surveys have been started, these have been scoped out from further surveys after two visits due to the presence of propane fuelled bird scarers present during the core wintering period.	N/A
	Breeding bird surveys are recommended, with a focus on ground nesting birds, due to the presence of suitable habitat for ground nesting	Four visits between Mid-April and Mid-June, starting at sunrise.

Ecological Feature	Recommendation	Timing
	birds, and skylark being observed on Site.	
Other Notable Species	A precautionary approach to vegetation clearance is recommended during the construction phase, formalised within a PMW/CEMP.	During the construction phase.

- iii Enhancements for biodiversity that could be delivered as part of the Scheme include bird and bat boxes incorporated into building designs and inclusion of habitat connectivity, including hedgehog highways, into the landscaping designs.

4.2 Re-Survey of Site

- i Due to the mobility of animals and the potential for colonisation of the Site, it is recommended that an updated ecological survey be undertaken prior to the redevelopment of this Site should this not occur within 18 months of the date of the field survey.

5 FIGURES

Figure 1: Site Location and Context Plan

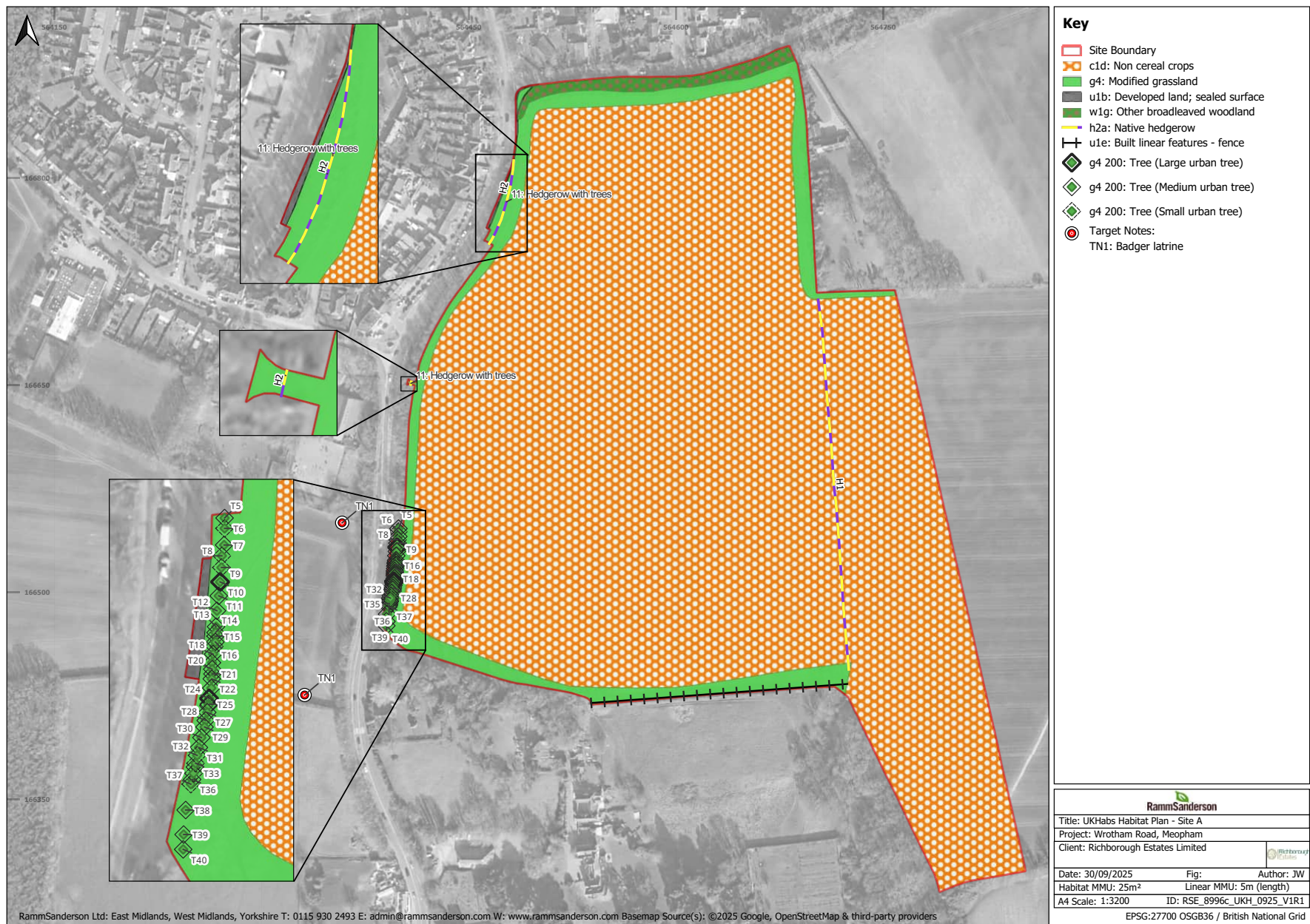
Figure 2: UKhabs Habitat Plan

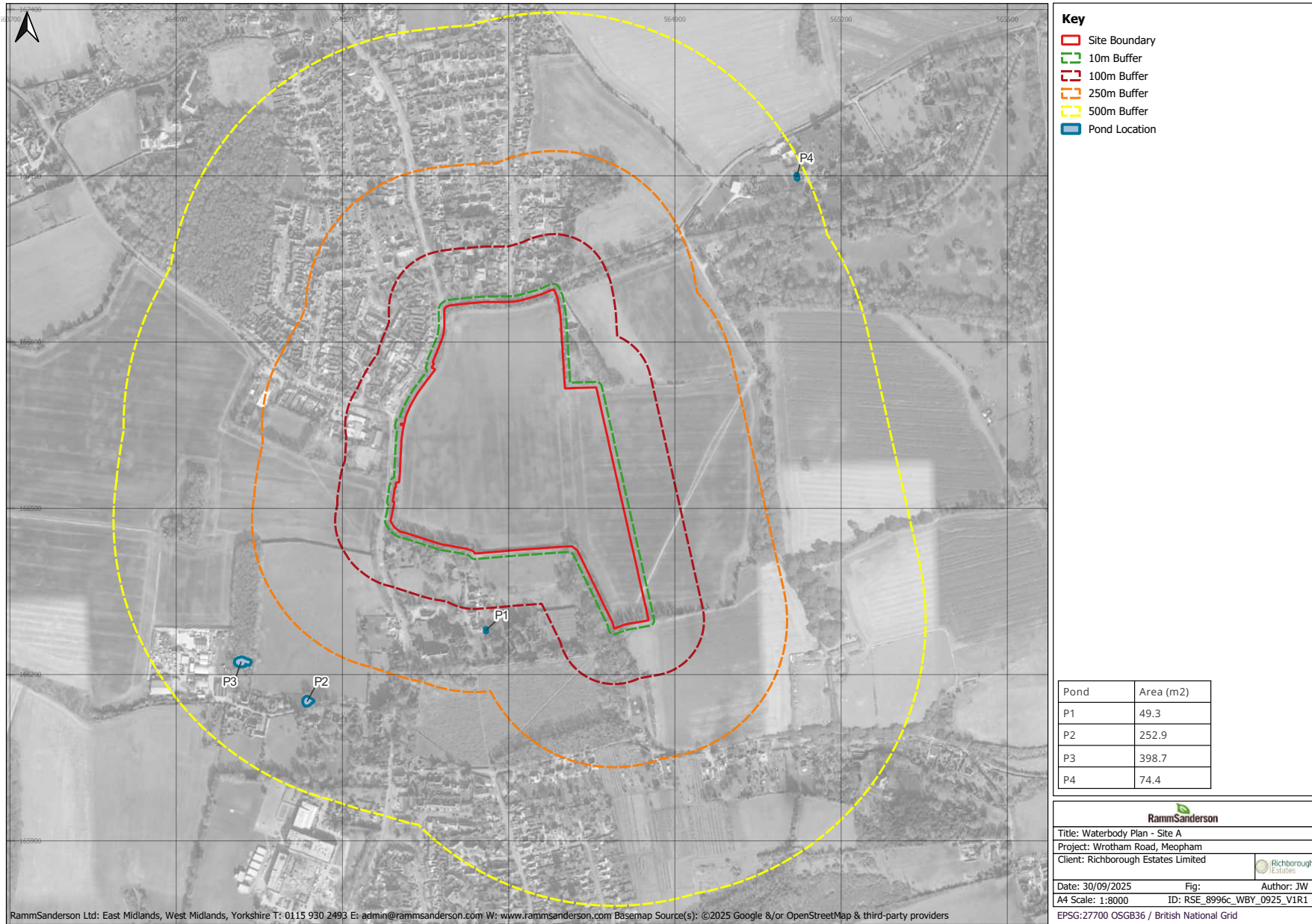
Figure 3: Waterbody Plan

Figure 4: Wintering bird survey 1 21/01/2025

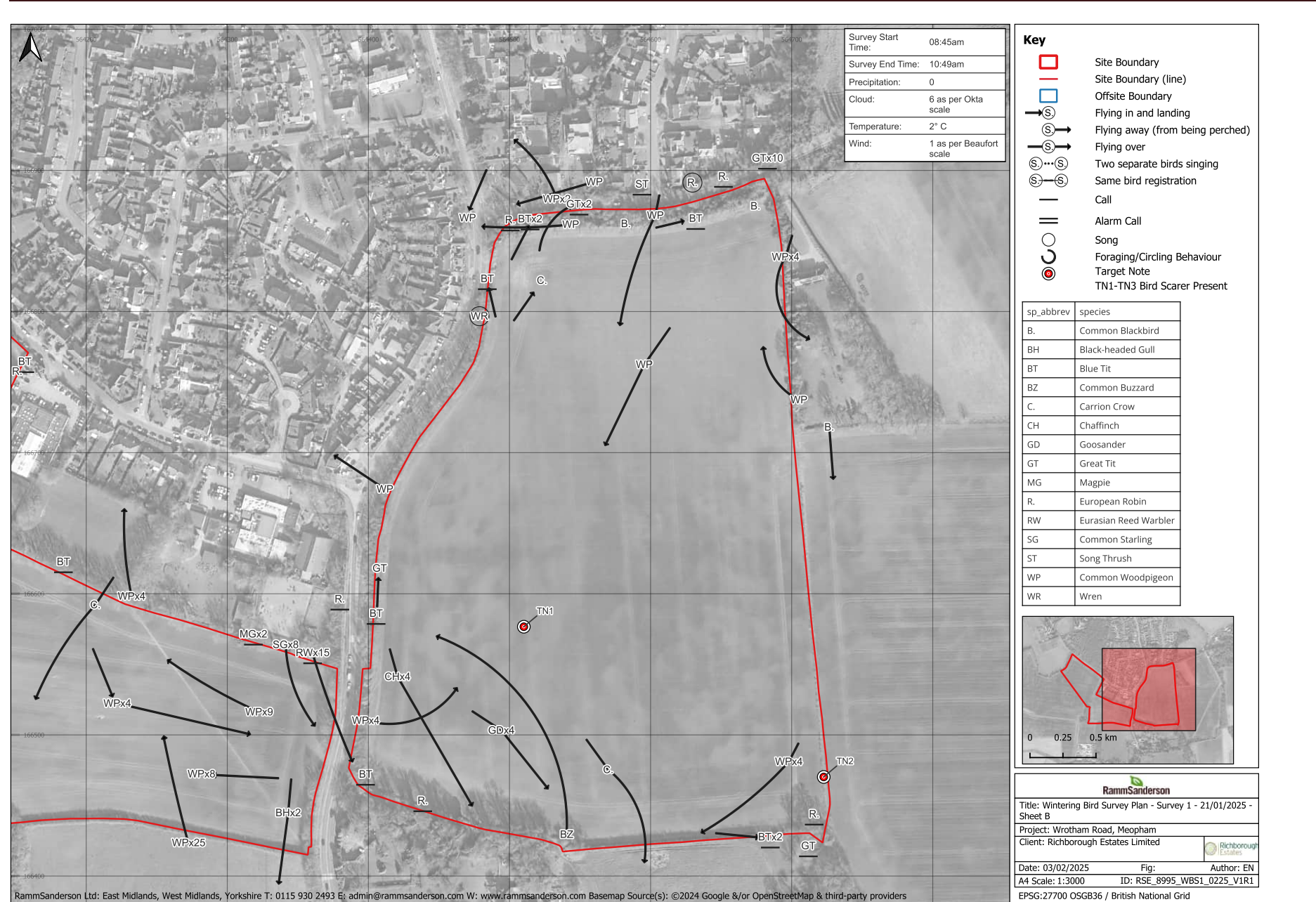
Figure 5: Wintering bird survey 2 26/02/2025

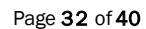


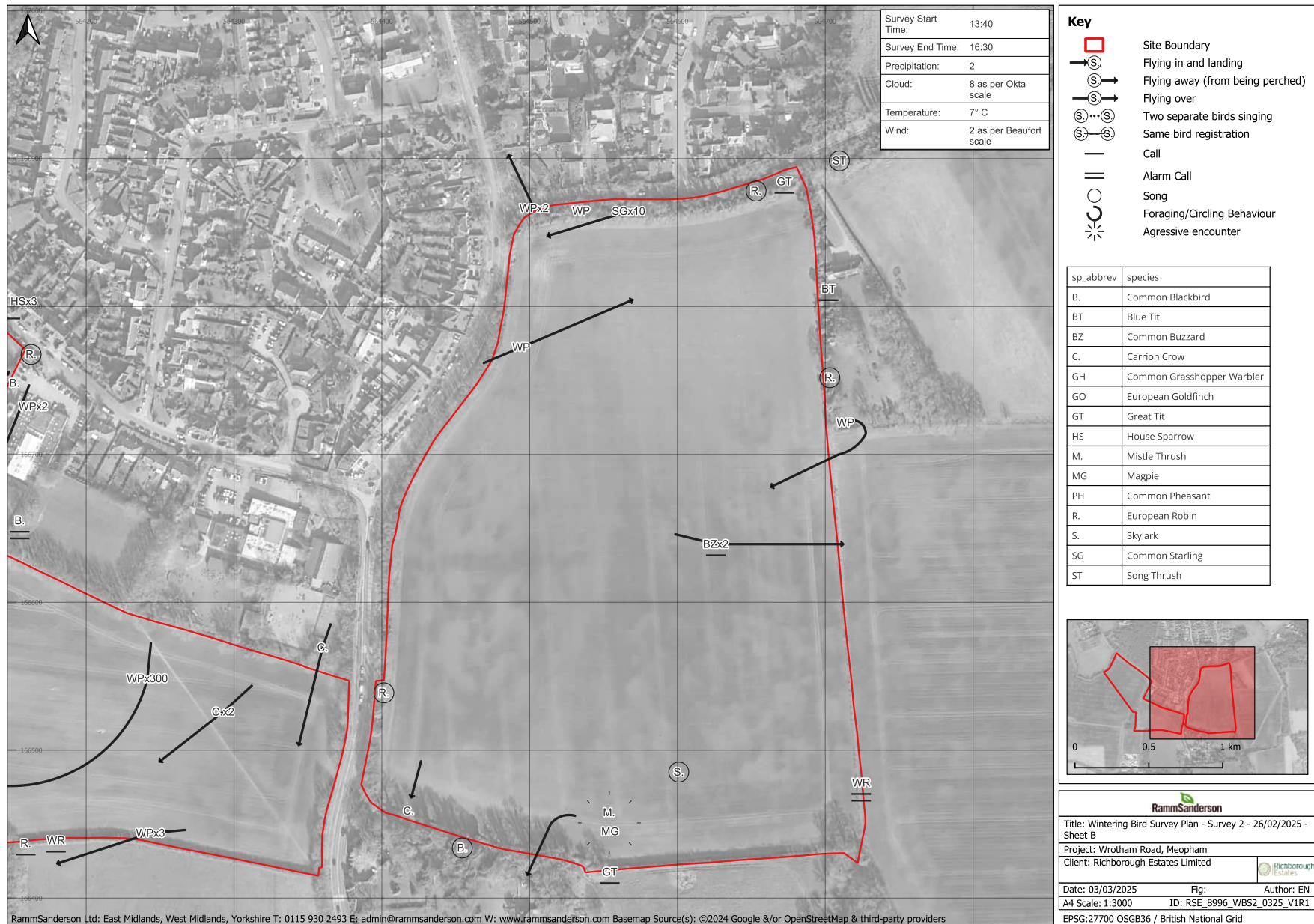












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- xv Stace, C. E. (2019). *New Flora of the British Isles, 4th Edition*. Cambridge University Press.
- xvi Stanbury, A. E. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*, 114:723-747.
- xvii *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations*. (2019).

APPENDIX 1: RELEVANT LEGISLATION AND PLANNING POLICY

- xviii The UK is no longer a member of the European Union (EU). EU legislation as it applied to the UK on 31 December 2020 is now a part of UK domestic legislation. EU legislation which applied directly or indirectly to the UK before 11.00 p.m. on 31 December 2020 has been retained in UK law as a form of domestic legislation known as 'retained EU legislation'.
- xix The Secretary of State for the Environment, Food and Rural Affairs and Welsh Ministers have made changes to parts of the Conservation of Habitats and Species Regulations 2017 (referred to as the 2017 Regulations) so that they operate effectively. Most of these changes involve transferring functions from the European Commission to the appropriate authorities in England. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant and are now referred to as The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (the 2019 Regulations).

Designated Sites

Locally Designated Sites

- xx Local Wildlife Sites are sites with 'substantive nature conservation value'. They are defined areas, identified and selected for their nature conservation value, based on important, distinctive and threatened habitats and species within a region.
- xxi They are usually selected by the relevant Wildlife Trust, along with representatives of the local authority and other local wildlife conservation groups.
- xxii The LWS selection panel, select all sites that meet the assigned criteria, unlike SSSIs, which for some habitats are a representative sample of sites that meet the national standard. Consequently, many sites of SSSI quality are not designated and instead are selected as LWSs. Consequently, LWSs can be amongst the best sites for biodiversity.

Protected Species

Bats / Hazel Dormouse / Great Crested Newt

- xxiii These species, known as European Protected Species, are protected under Regulation 43 of the 2017 Regulations as amended by the 2019 Regulations. This makes it an offence to deliberately capture, injure or kill an animal; deliberately disturb an animal; or damage or destroy a breeding site or resting place used by an animal.
- xxiv Deliberate capture or killing is taken to include "accepting the possibility" of such capture or killing. Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.
- xxv Where development works are at risk of causing one or more of the offences listed above, a mitigation licence from Natural England can be obtained to facilitate the works that would otherwise be illegal.
- xxvi These species are also protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb an animal in such a place.
- xxvii Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2017 remain an offence under the Wildlife and Countryside Act 1981 although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided.

Nesting Birds

- xxviii All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), with some species afforded greater protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In addition to the protection from killing or taking that all birds receive, Schedule 1 birds and their young must not be disturbed at the nest.
- xxix There are no licensing purposes that explicitly cover development activities affecting wild birds.

Common Species of Reptile (common lizard, slow worm, grass snake and adder)

- xxx Common species of reptile are protected against intentional killing and injury under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). There is no requirement for a licence where development works affect common species of reptiles. Instead, Natural England (English Nature, 2004) advise that where reptiles are present, they should be protected from any harm that might arise during the development works through appropriate mitigation.

Badger

- xxxi Badgers and their setts are protected under the Protection of Badgers Act 1992 (as amended). This makes it an offence to wilfully kill, injure or take a badger; or intentionally or recklessly damage, destroy or obstruct access to a badger sett or disturb a badger in its sett.
- xxxii It is not illegal to carry out disturbance activities near setts that are not occupied, i.e. those that do not show signs of current use.
- xxxiii Where required, licences for development activities involving disturbance or sett interference or closure are issued by Natural England. Licences for activities involving watercourse maintenance, drainage works or flood defences are issued under a separate process.
- xxxiv When assessing the requirement for a licence in respect of development, Natural England (Natural England, 2009) state that badgers are relatively tolerant of moderate levels of noise and activity around their setts, and that a low or moderate level of apparent disturbing activity at or near to badger setts does not necessarily disturb the badgers occupying those setts.
- xxxv Licences are normally not granted from December to June inclusive (the badger breeding season) because dependent cubs may be present within setts.

Species and Habitats of Principal Importance for the Conservation of Biodiversity

- xxxvi Section 40 of the Natural Environment & Rural Communities Act (NERC) 2006 sets out the duty for public authorities to conserve biodiversity in England.
- xxxvii Habitats and species of principal importance for the conservation of biodiversity are identified by the Secretary of State for England, in consultation with Natural England, are referred to in Section 41 of the NERC Act for England. The list, known as the 'England Biodiversity List', of habitats and species can be found on the Natural England web site.
- xxxviii The 'England Biodiversity List' is used as a guide for decision makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 2006 to have regard to the conservation of biodiversity in England when carrying out their normal functions. The habitats and species on the List, are material considerations of planning, where present on an application site.

Planning Policy

National Planning Policy Framework, 2024

xxxix The National Planning Policy Framework (NPPF) (Department of Communities & Local Government, 2024) sets out the Governments planning policies for England and how these are expected to be applied by Local Authorities within their Local Development Frameworks (LDF).

xl Regarding the NPPF, the most pertinent paragraphs are:

8.c) “to protect and enhance our natural, built and historic environment, including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy”

180.d) “minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”

185.b) “promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”

186.a) “if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.”

186.c) “development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists.”

BNG Policy

xli The National Planning Policy Framework states that “planning decisions should minimise impacts on and provide net gain for biodiversity”. Furthermore, from February 2024, 10% BNG became mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). This means all relevant developments must achieve at least 10% BNG relative to the baseline biodiversity value of all land within the planning application boundary.

Local Planning Policy

xlii The Gravesham Local Plan Core Strategy adopted in September 2014 sets out the following relevant policies:

Policy CS12: Green Infrastructure – Section 5.7.24 states “There will be no net loss of biodiversity in the Borough, and opportunities to enhance, restore, re-create and maintain habitats will be sought” Section 5.7.25 states “Where a negative impact on protected or priority habitats/species cannot be avoided on development sites and where the importance of the development is considered to outweigh the biodiversity impact, compensatory provision will be required either elsewhere on the site or off-site, including measures for ongoing maintenance.”

Policy CS19: Development and Design Principles – Section 5.15.14 states “New development will protect and, where opportunities arise, enhance biodiversity and the Borough’s Green Infrastructure network.

Local Biodiversity Action Plans

xliii The Kent Biodiversity Strategy aims to deliver, over a 25- year period, the maintenance, restoration and creation of habitats that are thriving with wildlife and plants and ensure that the county’s terrestrial, freshwater, intertidal and marine environments regain and retain good health (KCC, 2020). The Strategy has

identified 17 priority habitats and 13 priority species that Kent can play a significant part in the restoration of. It has also identified a handful of species that can act as indicators of the health of our ecosystems.

APPENDIX 2: METHODOLOGY

Desk Study

Background Records Search

- xliv The preliminary ecological assessment includes a desk study to obtain background records relevant to a Site and the Scheme. The data obtained provides contextual information for the scope of field surveys, to aid the evaluation of field survey results, and to provide supplementary information where complete field survey coverage is not possible.
- xlv The Study Area is dependent upon the nature, timing and scale of the Scheme, as well as the location of the Site and the surrounding landscape. These variables all contribute to what is referred to as the Zone of Influence (Zoi) of the Scheme, which is the area over which ecological features may be affected by biophysical changes because of the works and associated activities.
- xlvi On 04/02/2025 the Kent and Medway Biological Records Centre was contacted to obtain the following ecological data:
- Records of non-statutory designated sites within 2 km of the Site boundary;
 - Records of legally protected and notable species (fauna and flora) within 2 km of the Site boundary, including Species of Principal Importance for the Conservation of Biodiversity listed under Section 41 of the Natural Environment & Rural Communities Act 2006 in the England Biodiversity List¹⁹.
- xlvi The Multi-Agency Geographic Information for the Countryside (MAGIC) (www.magic.gov.uk) website was reviewed for the following information:
- Designated sites of nature conservation importance (statutory sites only) within 2 km of the Site. This was extended to 5 km for internationally designated sites: Special Protection Areas (SPAs), Wetlands of International Importance (Ramsar sites) and Special Areas of Conservation (SACs); and,
 - Notable habitats within 2 km of the Site, these being areas of ancient woodland and 'Habitats of Principal Importance for the Conservation of Biodiversity' included in the England Biodiversity List.

Great Crested Newt Pond Search

- xlvi Ordinance Survey maps and the Where's the Path website (<https://wtp2.appspot.com/wheresthepath.htm>) have been used to identify the presence of water bodies within 500 m of the Site boundary, in order to help establish if the land within and immediately surrounding the Site could be used by great crested newts. This species can use suitable terrestrial habitat up to 500 m from a breeding pond (English Nature, 2001), though there is a notable decrease in great crested newt abundance beyond 250 m from a breeding pond (Natural England, 2004).

Field Survey

- xlx The preliminary ecological assessment includes a walkover survey of the Survey Area (all land within the Site and adjacent), broadly following the methodology set out in the UKHab survey guidance (UKHab Ltd, 2023). This survey method records information on habitat types and is 'extended' to record any evidence of and

¹⁹ Section 40 of the Natural Environment & Rural Communities Act 2006 requires that very public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. The Secretary of State has drawn up, in accordance with Section 41 of the Act and in consultation with Natural England, a list of habitats and species of principal importance for the conservation of biodiversity in England that is known as the England Biodiversity List

potential for protected or notable species to be present. Plant names recorded during the survey follow (Stace, 2019).

I During the walkover survey, the following protected or notable species are considered:

- **Badger:** the survey involves searching for signs of badger activity including setts, tracks, snuffle holes and latrines, following the methodology detailed in (Scottish Natural Heritage, 2018) and (Harris, 1989).
- **Bats:** the survey involves searching for potential roosting sites for bats within trees and structures (such as buildings, bridges or underground features such as mines) and categorising the potential of those trees or structures to support roosting bats (buildings: negligible to high, or confirmed roost; trees: confirmed roost, PRF-M or PRF-I), in accordance with Bat Conservation Trust (BCT) (Collins, J. (Eds.), 2023) guidance.
- **Hazel dormouse:** the survey involves assessing the potential of habitats within the Survey Area to support hazel dormouse, following English Nature guidance (English Nature, 2006);
- **Otter:** the survey involves assessing the potential of watercourses and water bodies, and adjacent terrestrial habitat within the Survey Area to support otter, following RSPB (Ward, 1994) and (Chanin, 2003) guidance;
- **Water vole:** the survey involves assessing the potential of watercourses and water bodies within the Survey Area to support water vole, following The Mammal Society (Dean, 2016) guidance;
- **Birds:** the survey involves assessing the potential of habitats within the Survey Area to support breeding, wintering or migrating birds, either individually notable species or assemblages of both common and rarer species;
- **Great crested newt:** the survey involves assessing the potential of habitats within the Survey Area to support great crested newt, following English Nature (English Nature, 2001) and Froglife (Froglife, 2001) guidance;
- **Reptiles:** the survey involves assessing the potential of habitats within the Survey Area to support reptiles (typically adder, grass snake, common lizard and slow worm only, though in some locations and habitat types (most notably heathland) may also include smooth snake and sand lizard), following Froglife (Froglife, 1999) and JNCC (Joint Nature Conservation Committee, 2003) guidance;
- **Notable species of invertebrate:** the survey involves assessing the potential of habitats within the Survey Area to support notable species of invertebrates, both terrestrial and aquatic (including white-clawed crayfish);
- **Protected or Notable species of plants:** the survey involves recording protected or notable plant species;
- **Other notable species:** the survey involves assessing the potential of habitat within the Survey Area to support other Notable Species, such as hedgehog, brown hare, polecat or common toad;
- **Non-native invasive plant species:** the survey involves recording evidence of the presence of invasive plants listed on (Wildlife and Countryside Act, 1981 (as amended)) and subject to strict legal control.

Biodiversity Accounting

li The biodiversity net gain (BNG) assessment involves making a comparison between the biodiversity value of habitats present within the Site prior to a development (i.e. the 'baseline') and the predicted biodiversity value of habitats following the completion of the Scheme (i.e. 'post development'). The comparison is undertaken in terms of 'biodiversity units', with the Statutory Biodiversity Metric²⁰ providing the mechanism to allow biodiversity values to be calculated and compared. The BNG assessment is conducted in accordance with the Statutory Biodiversity Metric User Guide²¹ and BNG good practice principles²².

²⁰ DEFRA (2023). The Statutory Biodiversity Metric DEFRA (2023). The Statutory Biodiversity Metric

²¹ DEFRA (2023). The Statutory Biodiversity Metric User Guide

²² CIEEM, IEMA & CIRAI (2019). Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide

- lii The metric assesses and generates separate outputs for area-based habitats, hedgerow habitats and watercourse habitats. A development cannot claim to achieve net gain until biodiversity net gains are predicted across all area-based, hedgerow and watercourse habitats.
- liii The calculation for area-based and hedgerow habitats calculates biodiversity units as follows:
- Before Works = Distinctiveness Score x Condition Assessment x Area/Length x strategic significance
 - After Works = ((Distinctiveness Score x Condition Score x Area/ Length x strategic significance) / Time to Target Condition) / Difficulty of Creation/Restoration
- liv The five factors are determined as set out below:
- Distinctiveness Score – High, Medium or Low, based on UK habitat classifications.
 - Condition Score – Good, Fairly good, Moderate, Fairly poor or Poor, based on habitat condition assessment (as recorded using the Statutory Biodiversity Metric condition assessment sheets²³).
 - Area/Length – hectares (ha)/ length (km) of habitat type.
 - Strategic significance – High (Within area formally identified in local strategy), Medium (Location ecologically desirable but not in local strategy) and Low (Area/compensation not in local strategy/ no local strategy).
 - Time until target condition – time period (in years) until the target condition will be achieved.
 - Difficulty of creation/restoration – a score applied to account for risk associated with creating/restoring different types of habitat.

Limitations

- lv The aim of a desk study is to help characterise the baseline context of a proposed development and provide valuable background information that would not be captured by a single site survey alone. Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitats or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the proposed development.
- lvi An ecological survey represents a 'snapshot' in time of the ecological condition of a Site. The ecological character of a Site can change substantially throughout both the course of a year, and from year to year impacting on the extent and quality of habitats potential to support protected species.

²³ DEFRA (2024). Statutory Biodiversity Metric Condition Assessments.