HYBRID ECOLOGY LTD
joined up thinking

Low Impact EcIA:

Land adjacent to 229 London Road, Wickford, Essex

On behalf of:

CBS Developments Ltd.

Prepared by:
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Report version:
Version 1:
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Summary

Land adjacent to 229 London Road, Wickford was visited on 8th March 2024 in connection with a proposal for a residential development. This report supports a planning application to Basildon Council.

This report provides the results of an ecological baseline survey and makes recommendations for avoidance measures, mitigation and enhancements as appropriate in the context of the proposal, referring to planning policy and best practice guidance where appropriate.

The report is required to inform design, and to provide the Local Planning Authority with certainty on impacts to designated sites, Priority Habitats, and legally protected species.

Designated sites

- The site is not the subject of a conservation designation. The site is within the scope of the Essex Coast RAMS, therefore a per-unit payment is required as mitigation. This is to be agreed with Basildon Council and secured via legal agreement or similar.

Habitats and species considerations /recommendations

- The site is a domestic garden that has been well maintained. There is not a reasonable likelihood of legally protected species presence to warrant further surveys.

- There is a risk of nesting birds in all boundary vegetation. Therefore, tree work/vegetation management will be carried out between October – February inclusive to avoid impacts to active nests.

- All retained vegetation is to be protected in accordance with arboricultural best practice.

- The mowing regime will be continued to discourage presence of wildlife, reptiles ahead of development starting.

Enhancement proposal

The development will include reasonable enhancement measures to improve wildlife opportunities on the site.

This should include native, species-rich hedgerow planting, small trees and gardens with permeable boundaries to maintain species dispersal opportunities. Long-lasting habitat features/boxes for nesting birds and bats will be provided.

These measures will contribute to requirements under Paragraph 180(d) of the National Planning Policy Framework (NPPF, 2023) and Local Plan policy which require all development to demonstrate biodiversity net gain.

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1.0 Introduction

Personnel

1.1 This report has been prepared by Gemma Holmes; Consultant Ecologist at Hybrid Ecology Ltd. Gemma is a qualified ecologist with 17 years' experience in professional survey work and is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Gemma holds licences to survey for great crested newt and bats in the UK (Licence numbers 2015-19096-CLS-CLS and 2016-27305-CLS-CLS respectively).

Brief

1.2 CBS Developments Ltd. instructed Hybrid Ecology to produce a Low Impact EcIA for Land adjacent to 229 London Road, Wickford, Essex (central grid reference TQ7298093055). The proposal involves four dwellings. The location plan showing red line boundary is provided in Figure 1. The proposed site plan is provided in Appendix 1.

Aims

1.3 This report aims to advise the client/developer and relevant members of the project team as to the key ecological constraints and opportunities associated with this project and any necessary mitigation requirements to ensure legal obligations in respect of protected species, designated sites and habitats are met.

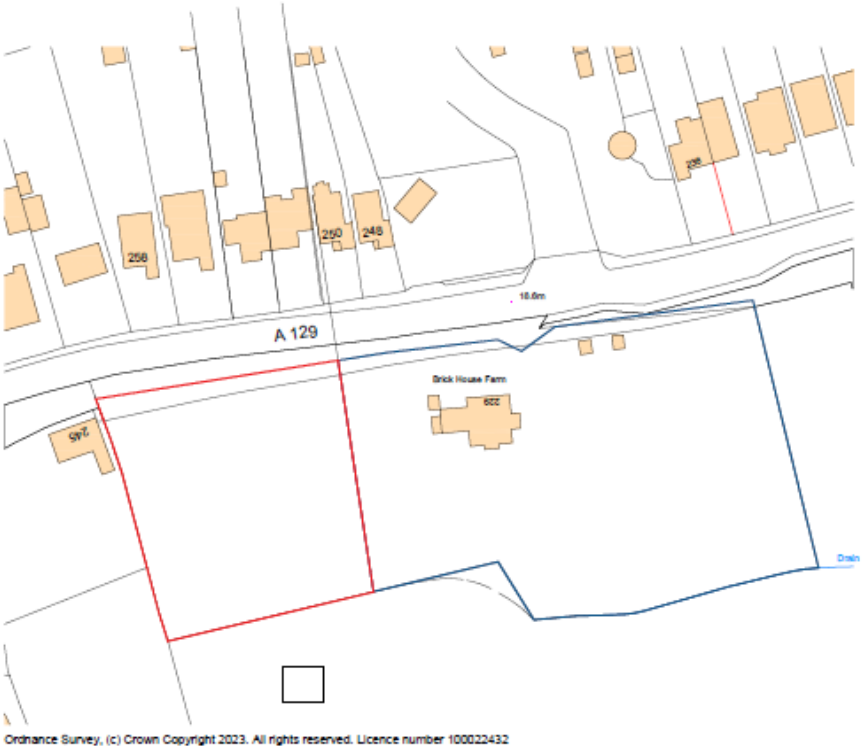
Limitations

1.4 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. Wildlife is transient and mobile, and results of a survey can reasonably vary from one day to the next or across the seasons.

1.5 The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat. However, it should not be taken as providing a full and definitive survey of any protected species/group.

1.6 In accordance with CIEEM Report Writing Guidelines (December 2017), this report is valid for 18 months from the survey date. Beyond this, habitats are reasonably expected to have changed to warrant an updated survey. Beyond 18 months, this report should not be accepted in support of a planning application.

Figure 1. Location plan



2.0 Planning Policy and Legislation

National Planning Policy Framework (NPPF, 2023)[1] Paragraph 15. Conserving and enhancing the natural environment (*relevant policies only*)

Paragraph 180

2.1 Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

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;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Paragraph 181

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

[1] National Planning Policy Framework - 15. Conserving and enhancing the natural environment - Guidance - GOV.UK (www.gov.uk)

Paragraph 185

2.3 To protect and enhance biodiversity and geodiversity, plans should:

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

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

Paragraph 186

2.4 When determining planning applications, local planning authorities should apply the following principles:

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

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

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

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Paragraph 188

2.5 The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects). This is unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Local planning policy - Basildon Local Plan 2007[2]

Relevant policies are provided below.

Policy BAS C1

The Council will not permit development which may have an adverse material effect on a Site of Special Scientific Interest (SSSI). When considering planning applications affecting Sites of Importance for Nature Conservation (SINC) or other important wildlife habitats, the Council will have full regard to the nature conservation value of the site

The criteria which the Council will take into account in dealing with planning applications affecting SSSIs, SINCs and other important habitats will be:-

i. effects on significant nature conservation or scientific features of the site;
ii. the importance of the site and of any nature conservation or scientific features affected; and
iii. any benefits of the proposed development.

Policy BAS C5

Existing woodlands should be retained, especially where they are Ancient Woodlands. Appendix One identifies the Ancient Woodlands located within the District. These are identified on the Proposals Map.

Policy BAS C7

The Council will not permit development, including recreational proposals, which would cause harm to the landscape, the open and rural character or the wildlife of the marshes Coastal Protection Area.

[2] Basildon District Local Plan Saved Policies - September 2007

Legislation: Protection of Designated Sites, Habitats and Species

Please note this section is a summary of legislation only and should not be taken as a definitive interpretation of any wildlife law. UK wildlife legislation can be found here: *Legislation.gov.uk*

Designated sites

RAMSAR

2.6 Ramsar sites are designated under the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Wetlands are designated, protected and promoted in order to stem the progressive encroachment on and loss of wetlands, which are broadly defined to include marsh, fen, peatland and water.

Special Areas of Conservation (SAC)

2.7 Special Areas of Conservation are sites designated by Member States under the EC Habitats Directive. The aim is to establish a network of important high quality conservation sites that will make a significant contribution to conserving habitats and species considered to be most in need of conservation at an international level.

Special Protection Areas (SPA)

2.8 Special Protection Areas are designated under the EC Birds Directive, to conserve the habitat of certain rare or vulnerable birds and regularly occurring migratory birds. Any significant pollution or disturbance to or deterioration of these sites has to be avoided.

National Nature Reserves (NNR)

2.9 National Nature Reserves are statutory reserves established for the nation under the Wildlife and Countryside Act, 1981. NNRs may be owned by relevant national body (e.g. Natural England in England) or established by agreement; a few are owned and managed by non-statutory bodies. NNRs cover a selection of the most important sites for nature conservation in the UK.

Sites of Special Scientific Interest (SSSI)

2.10 Sites of Special Scientific Interest are areas notified under the Wildlife and Countryside Act, 1981, as being of 'special interest for nature conservation'. They represent the finest sites for wildlife and natural features in Great Britain supporting many characteristic, rare and endangered species, habitats and natural features. Notification as a SSSI is primarily a legal mechanism organised by Natural England and selected according to specific criteria.

Local Nature Reserves (LNR)

2.11 Land owned, leased or managed by Local Authorities and designated under the National Parks and Access to the Countryside Act. A site of some nature conservation value managed for educational objectives – no need for SSSI status. Some reserves are managed by a non-statutory body.

Local Wildlife Site / Wildlife Sites

2.12 Local Wildlife Sites (LoWS) are non-statutory sites designated at a county level as being of conservation importance and often recognised in Local authority development plans. The aim of this identification is to protect such sites from land management changes, which may lessen their nature conservation interest, and to encourage sensitive management to maintain and enhance their importance. Although LoWS have no statutory protection, they are a material consideration in the planning process.

Regionally Important Geological / Geomorphological Site (RIGS)

2.13 Regionally Important Geological/Geomorphological Sites are non-statutory earth science sites. The RIGS networks are locally based voluntary groups drawing on both professional and interest groups identifying sites using a methodical and rational approach. RIGS are analogous to non-statutory biological sites – they are not a second tier but sites of regional or local importance in their own right.

Legally protected and Priority Species

2.14 The two principal wildlife statutes, directly related to the NPPF and local planning policy, are the Conservation of Habitats and Species Regulations (The Habitats Regulations, 2019, EU Exit as amended) that deals with internationally important sites and species, and the Wildlife and Countryside Act 1981 (as amended) (from here on referred to as WCA, 1981) that deals with nationally important sites.

2.15 Certain habitats and species are protected as SSSI under the WCA (1981). Some of these are more strictly protected as proposed or designated SPA, SAC and Ramsar Sites under the Habitats Regulations (2019). These designations protect features and resources listed as being of international importance from both direct and indirect effects arising from a range of issues including proposed development.

2.16 Certain species listed on Schedule 5 of the WCA (1981), including all bat species, great crested newt, hazel dormouse and otter are also protected under Schedule 2 of the Habitats Regulations (2019) making them European Protected Species (EPS). Taken together it is illegal to:

- Deliberately kill, injure or capture any wild animal of EPS;
- Deliberately disturb wild animals of any EPS in such a way to be likely to significantly affect:
  - The ability of any significant groups of animals of that species to survive, breed, rear or nurture their young; or
  - The local distribution of that species.
- Recklessly disturb a EPS or obstruct access to their place of rest;
- Damage or destroy breeding sites or resting places of such animals;
- Deliberately take or destroy the eggs of such an animal;
- Possess or transport any part of a EPS, unless acquired legally; and/or
- Sell, barter or exchange any part of an EPS.

2.17 A range of species other than birds, including water vole is protected from disturbance and destruction under the WCA (1981) through inclusion on Schedule 5.

2.18 All breeding birds are protected from deliberate destruction under the WCA (1981). Certain species are further protected from disturbance at their nest sites being listed on Schedule 1 of the WCA (1981).

2.19 Common reptiles including common lizard, slow-worm, grass snake and adder are protected under the WCA (1981), they are listed as Schedule 5 species, therefore part of Section 9(1) and section 9(5) apply; the Countryside and Rights of Way Act 2000 (CRoW) also strengthens their protection.

2.20 Badger is protected from sett disturbance and destruction under the Protection of Badgers Act (1992).

2.21 Section 40 of the NERC Act 2006 places a legal duty on local authorities to conserve biodiversity. Section 41 (S41) sets out a list of species and habitats of principal importance. These species are known as Priority Species and are those identified as requiring action under the former UK Biodiversity Action Plan (BAP) and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.

2.22 Native, species-rich hedgerows are protected as being 'important' under the Hedgerow Regulations (1997). Hedgerows over 20 metres long and containing native, woody species are Priority Habitat.

2.23 Japanese Knotweed *Fallopia japonica*, along with a number of other introduced and invasive species, are listed under Schedule 9 of the WCA (1981). Japanese knotweed is highly invasive and its rhizomes cause damage to built structures. Hence it is also classed as controlled waste under the Environment Protection Act (1990) and has therefore either to be removed and disposed of in a licensed landfill or the rhizomes buried to a depth of at least 5m.

2.24 The Wild Mammals Protection Act 1996 protects all wild mammals, including fox from direct harm, including asphyxiation.

3.0 Methodology: Desktop Study

Mapping exercise

3.1 Aerial imagery (Google Earth Pro, 2023) was used to examine the landscape context of the site in relation to significant ecological assets such as woodland, established hedgerows, grassland and any naturalised features that would allow wildlife use and dispersal.

3.2 Multi-Agency Geographical Information for the Countryside (MAGIC) mapping was used to:

- Determine the proximity to international, national and locally designated sites and whether the site lies within the Zone of Influence/Impact Risk Zone, as appropriate.
- Identify any areas of land mapped by Natural England as Priority Habitat within 250 metres of the site.
- Identify any local initiatives such as B-Lines projects to improve conditions for local wildlife.
- Identify any European Protected Species (EPS) mitigation licenses granted by Natural England for great crested newt, bats or dormouse within a 2km radius of the site that could be relevant to this development.

<u>Essex Coast RAMS</u>

3.3 MAGIC and Essex Field Club mapping were also used to determine if the project falls within the scope of the Essex Coast Recreation Disturbance Avoidance and Mitigation Strategy (RAMS). Its aim is to reduce the impact of increased levels of recreational use on Habitat Sites (also often called European Sites), due to new residential development in/around the coast, and to provide a simple, coordinated way for developers to deliver mitigation for their developments. The RAMS project allows for a strategic approach to mitigating the in-combination effects of development on these designated areas and allows mitigation to be delivered across the project area.

3.4 The Zone of Influence (ZoI) is identified in the RAMS document. Increased recreation without mitigation in the ZoI would result in the significant features of the sites being degraded, or lost, and these internationally important areas losing their birds and habitat, (and therefore their designations), and the coast losing significant important areas for birds, plants and wildlife generally.

3.5 Any new residential development within the ZoI will be required to mitigate the effects of the development and show how this will be achieved prior to approval of planning permission. In smaller developments this is achieved through payment of the RAMS contribution only.

Biological Records Search

3.6 A biological records search from Essex Field Club was ordered in March 2024. The report contains records of legally protected and Priority Species within 2km of the site along with designated sites.

4.0 Methodology: Habitats and Species

Baseline habitat survey

4.1 An ecological walkover survey was carried out on 8th March 2024 by ecologist Gemma Holmes (BSc Hons). The survey included all land shown inside the red line on Figure 1 and up to 30 metres to the east, within the blue line.

4.2 The survey was undertaken broadly in accordance with the Handbook for Phase 1 Habitat Survey (JNCC 2010) and UKHAB. These are standard techniques for obtaining baseline ecological information for areas of land.

Protected/priority species scoping

4.3 The survey also included an assessment of the site's potential to support any legally protected species; or Species and Habitats of Principal Importance (Priority Species), as identified by Section 41 of the Natural Environment and Rural Communities Act (2006).

4.4 The site was assessed for its suitability for the protected animals that are likely to occur in the area. Considering the results of the desk study, the location and habitats on site, a scoping assessment was carried out for:

- Bats (roosting, foraging and commuting)
- Great crested newts *Triturus cristatus* (GCN) – terrestrial only
- Hazel dormice
- Badger *Meles meles* including mapping of setts
- Birds (including breeding and wintering birds)
- Invertebrates
- Reptiles
- Rare and notable plant species
- Invasive non-native plant and animal species

4.5 Where best practice guidelines exist, these have been used to assess the likelihood that individual species will be present, for example Bat Surveys: Good Practice Guidelines (BCT 2023) and Habitat Suitability Index for Great Crested Newt (Oldham et al, 2000). Specific methods relevant to the site/species are described below.

Great crested newt

4.6 The GCN Risk Zones for District Licensing of Great Crested Newts in Essex[3] was used to identify if the site is within an area where GCN have previously been recorded. The dataset shows where the distribution of great crested newts (GCN) has been categorised into zones relating to GCN occurrence and the level of impact development is likely to have on this species.

[3] GCN Risk Zones (Essex) | Natural England Open Data Geoportal (arcgis.com)

4.7 Red zones contain key populations of GCN, which are important on a regional, national or international scale and include designated Sites of Special Scientific Interest for GCN. Amber zones contain main population centres for GCN and comprise important connecting habitat that aids natural dispersal. Green zones contain sparsely distributed GCN and are less likely to contain important pathways of connecting habitat for this species.

Bats

4.8 In accordance with BCT, 2023, the suitability of habitats on the site for bats was assessed via a Preliminary Roost Assessment (PRA) in accordance with Figure 2. The PRA included an inspection of all buildings to locate suitable voids or crevices and any evidence such as droppings, plus a ground-level assessment of trees on and adjacent to the site for features that bats could reasonably use – including cavities, bark lesions, woodpecker holes, fluting, hazard beams, along with any external evidence such as droppings (note droppings decay quickly on trees) and staining/rub marks on the stem/limb. Tree features are identified as PRF-L (i.e. suitable for one bat) or PRF-M (suitable for larger numbers of bats).

Figure 2. Guidelines for assessing potential suitability of development sites for bats (BCT, 2023)

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Potential suitability	Description	
	Roosting habitats in structures	**Potential flight-paths and foraging habitats**
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible[a]	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[b] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats[c]).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[b] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions[b] and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

The Mitigation Hierarchy

4.9 All development is expected to meet the highest planning standards and follow the Mitigation Hierarchy of avoid, mitigate, compensate and enhance to ensure that significant natural environment impacts are avoided.

- Avoid - Avoiding any loss of or damage to wildlife sites or to protected / Priority species – development must not damage or destroy important national and Local Wildlife Sites.
- Mitigate - Impacts considered unavoidable should be mitigated at the site where the impact occurs, if at all possible.
- Compensate - Any remaining significant biodiversity loss should be compensated for, as close to the area of loss as possible.
- Enhance - Improve degraded ecosystems/return an area to original ecosystem including creating new habitat - habitat creation should be a standard feature of all new development, wherever it is.

Evaluation criteria

4.10 Ecological features (designated sites, habitats, and species) were evaluated where possible in relation to a geographical context (i.e. International, National, Regional, Metropolitan, County, District, Borough, Local and Site), in accordance with CIEEM Ecological Impact Assessment Guidelines (2016). Criteria include designations, quality of habitat in relation to the site context, ability to support notable assemblages of species, contribution to habitat connectivity, dispersal opportunities or providing intrinsic ecological value.

5.0 Results: Desktop Study

Landscape context

5.1 The site lies in a suburban position to the west of Wickford in south Essex. The site is bordered to the north by London Road, east by Brick House Farm, south by arable land and west by 245 London Road. The River Crouch is approximately 200 metres to the north but ecologically separated from the site. The surrounding landscape includes low density housing, small woodlands and arable land that tends to have strong hedgerow connections.

Designated sites/Priority Habitats

Relevant mapping provided by EFC is provided in Appendix 2.

5.2 The site is not the subject of a conservation designation and there are no such designations adjacent to the site.

5.3 The site is approximately 5km from the Crouch and Rouch Estuary (SPA, SAC, Ramsar, SSSI). New residents will reasonably visit the coast for recreation. Consequently, at this distance, any development contributing to a net-gain in residential units is required to mitigate by providing a per-unit financial contribution to comply with the Essex Coast RAMS. This is to be agreed with Basildon Council and secured by legal agreement.

5.4 There are several Local Nature Reserves and Local Wildlife Sites in the local area, given the distance and intervening land-use none will be impacted.

5.5 There is no Priority Habitat on the site. The closest Priority Habitat is associated with residential gardens off-site to the south-west, neighbouring land/gardens connecting to the site will not be impacted.

Natural England EPS licences

5.6 There are no EPS licenses within a 2km radius of the site.

6.0 Results: Habitat Survey

A plan with annotated target notes is provided in Figure 3. Photographs from the site visit are provided in Figure 4. For full details on legally protected species, please refer to Section 7. Latin names appear in the text once.

Summary:

The site is a large domestic garden on a north-facing slope. The garden is subject to regular maintenance and is tidy with little ecological interest. There is various vegetation on boundaries including trees, hedgerows and scrub. There are small buildings to the north, including shed and greenhouse.

Modified grassland

6.1 The site is dominated by an expanse of mown amenity lawn. Observable species include various grasses, creeping buttercup, violet, ground ivy and cow parsley. This will largely be lost to development although new gardens will be incorporated into the layout.

Buildings

6.2 The buildings on site comprise a timber shed, greenhouse and temporary polytunnel, none have any ecological interest. All buildings are to be removed.

Individual trees

6.3 There is a small group of young apple trees in the north-eastern corner. There is a plum tree to the south of this group with an open cavity, suitable for bats and nesting birds. The outcome of an endoscopic inspection on this tree is provided in the next section. It is understood these trees will be retained.

6.4 There are further individual trees on the northern boundary. All specimens are low value, generally self-seeded, poorly maintained (i.e. some have broken limbs) and none contain any potential roost features or interest for wildlife beyond nesting birds. Species include hawthorn, cypress, ash, prunus, field maple and oak. Ground flora in this area includes common nettle, cow parsley, lord's and ladies. Beyond the northern boundary is a road verge with various prunus trees. A log pile exists to the south of the tree line. This boundary vegetation will largely be reduced/removed for access and visibility purposes. It is recommended that a new hedgerow is incorporated on the northern boundary if possible.

6.5 There are further trees on the southern boundary including a row of conifer, silver birch alder and ash. All trees are of low ecological value. This boundary vegetation is indicated as retained.

6.6 There are two semi-mature oak trees on the site's eastern boundary, again lacking ecological interest other than possible nesting birds. Both trees are indicated as retained.

Scrub

6.7 The western boundary is dominated by bramble scrub with various ash, prunus and blackthorn. There are several dead elm trees in the south-western corner. This low value vegetation could be removed and replaced with a mixed native species hedgerow.

Hedgerow

6.8 Along the southern boundary there is a mixed thorn hedgerow approximately 13 metres long. This will be retained.

Ornamental

6.9 To the south-east of the site there are various ornamental shrubs including buddleia and laurel. Amenity grassland with various shrubs continues beyond the eastern boundary into the adjacent garden. Shrubs are likely to be retained.

Other

6.10 To the north of the garden there is an allotment and chicken coop with various garden paraphernalia, including water containers and pallets. These features will be removed.

Habitats evaluation:

The site is assessed as being of low ecological value containing common, widespread habitats, significant at Site Level only. Development presents an opportunity to enhance the site for local wildlife.

Figure 3. Habitats and target notes

Target note	Description
1	Prunus tree with wound suitable for roosting bats and nesting birds.
2	Small young orchard with various apple trees. Retained.
3	Bank with ash, prunus, dead trees, stumps. Sparse ground cover. This boundary vegetation is likely to require removal.
4	Row of conifer trees. Mature ash to east. Row of oak and field maple trees to west. Log pile to south.
5	Log pile and dense bramble scrub.
6	Various young trees including elm, ash, prunus and blackthorn with dense bramble. Dead elm trees to south.
7	Two mature conifer trees.
8	Row of ash, elder, birch, conifer. Section of mixed thorn hedgerow.
9	Various ornamental shrubs.
10	Two early mature oak trees. Retained.
11	Allotment with various garden paraphernalia.
12	Garden timber shed. Greenhouse and polytunnel to north/east.

Figure 4. Photographs

a) Northern boundary – conifers.

b) Northern boundary – field maple and oak trees.

c) View across site to south-western corner.

d) Two early mature oak trees to east.

e) Garden shed, poly tunnel and greenhouse.

f) Apple orchard to north-east.

7.0 Results: Protected/Priority Species Scoping

This section includes data search results, habitat requirements for species/species groups and an assessment in the context of the proposal.

Bats

Data search:

7.1 There are low numbers of bat records surrounding the site. Records were returned for serotine, Leisler's bat, common pipistrelle, soprano pipistrelle and brown long-eared bat. Of these, soprano pipistrelle and brown long-eared bat are Priority Species.

Habitat requirements:

7.2 In buildings, bats are found inside loft voids, under hanging tile cladding, weatherboards, inside soffit boxes and any sheltered, dry crevice. Bats typically hibernate in cellars, cavity walls and bunkers. In trees, bats are typically found in woodpecker holes, behind flaking bark, or in wounds and hazard beams. The largest roosts are found close to foraging resources such as woodland and waterbodies.

Assessment:

7.3 The three buildings on site are entirely unsuitable for roosting bats, lacking in sheltered crevices or voids.

7.4 There is one tree on site, an early-mature prunus (TN1), with a potential roost feature in the form of a cavity at 2 metres facing north-west – see photos below/overleaf. This cavity was inspected with an endoscope on the day of the survey, the internal space was found to extend up to 50 cm but was also damp and full of woodlouse and slugs. Such conditions are usually a contraindicator to bat presence. The PRF is assessed as PRF-M, but no evidence of bats was seen within, around or below the feature. It is therefore possible to conclude likely absence. The layout indicates this tree can be retained.

7.5 The site is a garden and therefore provides low quality habitat for foraging and commuting bats. There are some opportunities presented by boundary vegetation and connecting gardens, although it can be easily argued that the wider landscape including woodlands and River Crouch is more suitable. Development on this small site is unlikely to alter bat behaviour.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	Retain the prunus tree wherever possible. If retention is not possible, fell as quickly as possible assuming nesting birds are absent. Avoid artificially lighting retained/new hedgerows and bat boxes.
Mitigation	In the unlikely event that bats are encountered during tree felling procedures, work will cease until ecological advice has been sought.
Compensation	None
Enhancement	There are opportunities for enhancements on the site, including bat boxes on buildings. Bat boxes could be installed on boundary oak trees to the east, pending landowner consent.

Great crested newt (GCN)

Data search

7.6 There are no great crested newt records within 2km. The site is within the Amber Risk Zone for great crested newt.

Habitat requirements:

7.7 Great crested newts can be found in rural, urban and post-industrial settings, with populations less able to thrive where there are high degrees of fragmentation.

7.8 The connectivity of the landscape is important, since great crested newts often occur in metapopulations that encompass a cluster of several or many ponds.

7.9 Breeding sites are mainly medium-sized ponds, though ditches and other waterbody types may also be used less frequently. Ponds with ample aquatic vegetation (which is used for egg-laying) seem to be favoured. Great crested newts do not require very high water quality but are normally found in ponds with a circum-neutral pH. Broad habitat type varies greatly, the most frequent being pastoral and arable farmland, woodland, scrub, and grassland. There are also populations in coastal dunes and shingle structures.

7.10 Between July and February (approximately) great crested newt are in terrestrial habitats. They are most often encountered within 250 metres of a breeding pond. However, Cresswell (2004) found that the most comprehensive mitigation, in relation to avoiding disturbance, killing or injury to great crested newt is appropriate within 50m of a breeding pond.

7.11 In regard to mitigation, Cresswell's research found that it will also almost always be necessary to actively capture newts 50-100m away. However, at distances greater than 100m, it was discovered that attempts to capture newts may not be necessary or the most effective option to avoid incidental mortality. At distances greater than 200-250m, Cresswell found that capture operations will hardly ever be appropriate.

***Assessment*:**

7.12 There are no ponds on the site. The closest pond according to aerial mapping is approximately 130 metres to the south-west, within woodland. The intervening habitat consists of arable land which GCNs are unlikely to cross especially when there are no other ponds in dispersal distance. There are further ponds beyond London Road to the north. London Road is a clear barrier to GCN dispersal.

7.13 The site is a domestic garden that is mown regularly. There are small areas on boundaries including log piles and scrub that could provide a temporary shelter/refuge, although the habitat overall is sub-optimal. This should also be considered in the context of the pond in question, which is contained within a woodland. Woodland habitat is more suitable for GCNs than a domestic garden and provides far more in the way of shelter and hibernation opportunities. For these reasons we do not consider there to be a reasonable likelihood that GCNs would be present and affected.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	Continue mowing regime to ensure site remains sub-optimal.
Mitigation	None
Compensation	NA
Enhancement	NA

Dormouse

Data search

7.14 No dormouse records were returned.

Habitat requirements:

7.15 The hazel dormouse requires wooded habitats, usually semi-natural woodland containing hazel coppice and oak, and a rich understorey cover through which to disperse safely between trees (English Nature 2006).

***Assessment*:**

7.16 The site provides unsuitable habitat for dormice, there is no ancient woodland, nor any species-rich hedgerows. The bramble scrub on the site is limited to sparse areas that are isolated from any other suitable connecting habitats.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	None
Mitigation	None
Compensation	NA
Enhancement	None

Birds

Data search

7.17 The EFC search returned records of two Schedule 1 listed birds within the search radius, peregrine and red kite. There is no available nesting habitat on the site for either species. Priority Species returned from the search include yellowhammer – a bird primarily found in arable hedgerow habitats, and house sparrow – a bird found in urban environments and often nests within/around houses.

***Habitat requirements**:*

7.18 Nesting birds can be found in scrub, trees and buildings between March and September inclusive (note some species, including pigeon, will nest all year round). Nesting birds may also use areas of the building including internal voids and external crevices.

***Assessment*:**

7.19 There is a high risk of generalist nesting birds in boundary vegetation and within the cavity identified in the prunus tree. No active or inactive nests were identified during the survey.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	Carry out any required tree work/vegetation management between October and February to avoid the nesting season. If this conflicts with the work programme, an ecologist will undertake a check of vegetation and buildings for active nests the day before work is planned.
Mitigation	If active nests are found during site clearance, all works must cease in the area and the nest left undisturbed with a species-appropriate buffer (advised by project ecologist) until the young have fledged.
Compensation	The landscape design will include new nesting habitat, including hedgerows.
Enhancement	Bird boxes will be provided on buildings to attract a variety of nesting species including house sparrow.

Legally protected plants and invertebrates

Data search

7.20 There are no records of legally protected plants or invertebrates in the immediate search area.

Assessment:

7.21 The habitats present are common, widespread and are unlikely to support notable invertebrate populations.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	None
Mitigation	None
Compensation	None
Enhancement	Planting of shrubs and flowers of known benefit to pollinators.

Badger

Data search results

7.22 Confidential – available on request.

Habitat requirements:

7.23 Badger is a widespread, common mammal and is legally protected due to persecution rather than rarity or conservation significance. European badger requires habitats in which to build their setts and in which to forage. Badgers preferentially choose sloping banks (road verges, railway embankments, woodlands) with easy-dig substrate for sett building where foraging habitat is available.

Assessment:

7.24 No setts were identified on the site or within 30 metres. Mammal tracks were identified crossing the southern portion of the site and along the western boundary close to vegetation, so it is likely that mammals disperse across the site at night. Therefore, the avoidance measures below will be complied with.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	• Ensure excavations or trenches left overnight are covered or have an escape route such as a shallow gradient at one or both ends. • Ensure excavations or trenches are inspected each morning and evening to ensure no badgers have become trapped. • Open pipework with a diameter of more than 120mm should be properly covered or capped at the end of the working day to prevent badgers from entering and becoming trapped. • During the work, the storage of any chemicals should be contained in such a way that they cannot be accessed or knocked over by any roaming badgers. • The storage of topsoil or other "soft" building materials within the site should be given careful consideration. Badgers will readily adopt such mounds and dig setts which would then be afforded the daily inspections before work commences or alternative measures put in place, such as being fenced off for higher-risk areas. • Litter, tools and potentially dangerous materials on site should be cleared at the end of the working day. Care should be taken that there are no sharp metal objects or pointed protrusions on the ground which could seriously injure a badger due to their poor eyesight.

Reptiles

Data search

7.25 One record for slow worm was returned 1.7km from the site.

Habitat requirements:

7.26 Common lizard, slow worm, grass snake and adder require mosaic habitats with features in which to bask, forage and shelter. These habitats need to have onward connectivity for dispersal. Suitable habitats include grassland with scrub edges or small woodland coppices (Edgar et al. 2010).

***Assessment*:**

7.27 The site is a garden with limited, isolated features (e.g. log piles) that could be suitable for shelter or hibernation. In its current mown state, the habitat is sub-optimal, but presence of low numbers of slow worm and common lizard along boundaries cannot be ruled out, as is often the case in garden environments. However, any population is likely to be low in number and transient and does not justify further presence/absence survey provided the current maintenance regime is continued until development commences.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	Continue site maintenance as existing.
Mitigation	None
Compensation	None
Enhancement	None

Other species considerations:

7.28 The site is suitable for hedgehog, a Priority Species. The developer should ensure that connectivity is maintained by providing gaps under garden fences. A hedgehog box is recommended in established vegetation.

8.0 Ecological Constraints and Opportunities

Constraints:

8.1 The developer will be required to comply with the Essex Coast RAMS via a financial contribution.

8.2 All retained boundary vegetation will be protected in accordance with arboricultural best practice.

8.3 Nesting birds are the only on-site species constraint. Tree work and any required vegetation clearance will be undertaken between October-February inclusive or following a negative nest check.

Reasonable enhancement measures:

8.4 There is scope to include ecological enhancement measures on the site to ensure the development delivers biodiversity gain. Recommended measures include tree planting, hedgerow planting, shrubs and habitat boxes. The plan in Appendix 1 has been annotated to show the various measures described below.

- Hedgerow planting/enhancement: A new hedgerow could be considered for the eastern boundary. A new hedgerow could also be considered either side of the access on the northern boundary. Recommended species include hawthorn, field maple, hazel, holly, guelder rose.

- Tree planting: Planting of small fruit/berry-bearing trees such as apple, pear, cherry, holly around gardens to encourage nesting and provide forage for wildlife.

- Planting for pollinators: Small verges around houses could be planted with shrubs that are wildlife friendly and will attract pollinating insects. A list of suitable shrubs for pollinators are provided in Appendix 3.

- Integrated bat roost feature: Four bat roost features (one per house) such as tube, tile or brick are recommended, ideally facing south and above eaves height.

- Integrated bird nest boxes: Four integrated bird nest features (one per house) are recommended, facing north or east and above eaves height.

- Gaps in boundary fences: Boundary fences should include gaps at the base (12x12cm is sufficient) to accommodate small mammals including hedgehog.

- Hedgehog box: A hedgehog box is recommended in established vegetation.

  Suitable habitat boxes for the site are provided in Appendix 4.

9.0 Conclusions

9.1 Hybrid Ecology was instructed to carry out an ecological assessment in relation to a proposed development in Wickford, Essex.

9.2 A mapping exercise and desk study were undertaken to determine constraints relating to designated sites, Priority Habitats and protected species. A survey was carried out in March 2024 to map habitats and identify any potential for/evidence of legally protected species. The survey also identified opportunities for ecological enhancement.

9.3 The site is of low ecological value and contains common, widespread habitats typical of a managed garden environment. Further survey is not required. Mitigation measures are required in respect of nesting birds and retained trees.

9.4 Provided all avoidance and mitigation measures detailed in this report are complied with, it is considered that the proposal can be made acceptable with minimal impact to local biodiversity.

Enhancement opportunities

9.5 The development proposal will include biodiversity enhancements such as new hedgerows, tree planting, bat boxes, bird boxes and hedgehog box.

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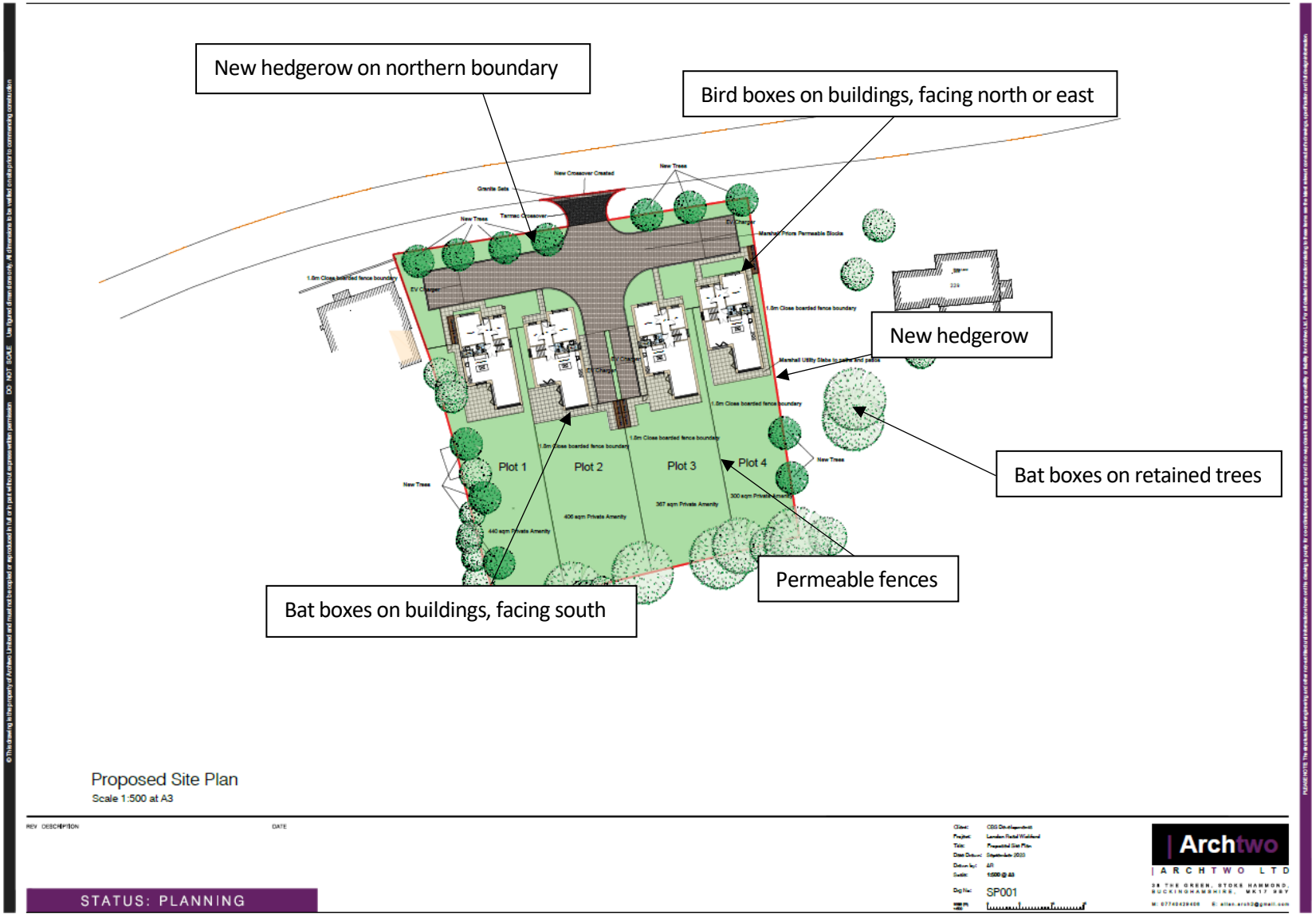
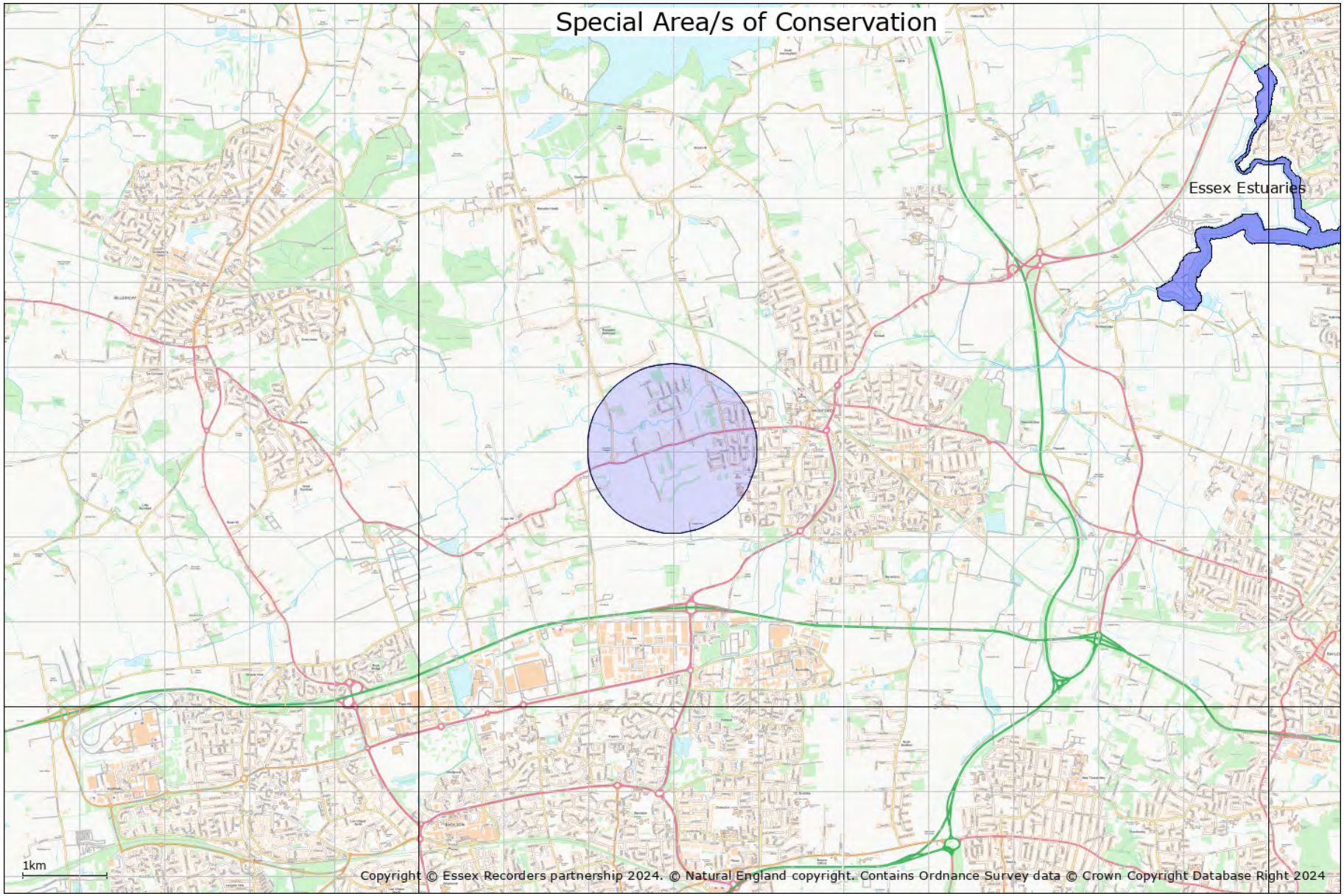
Appendix 1. Proposed site plan with recommended enhancement measures



Appendix 2. Mapping from EFC


Special Area/s of Conservation
Essex Estuaries
1km
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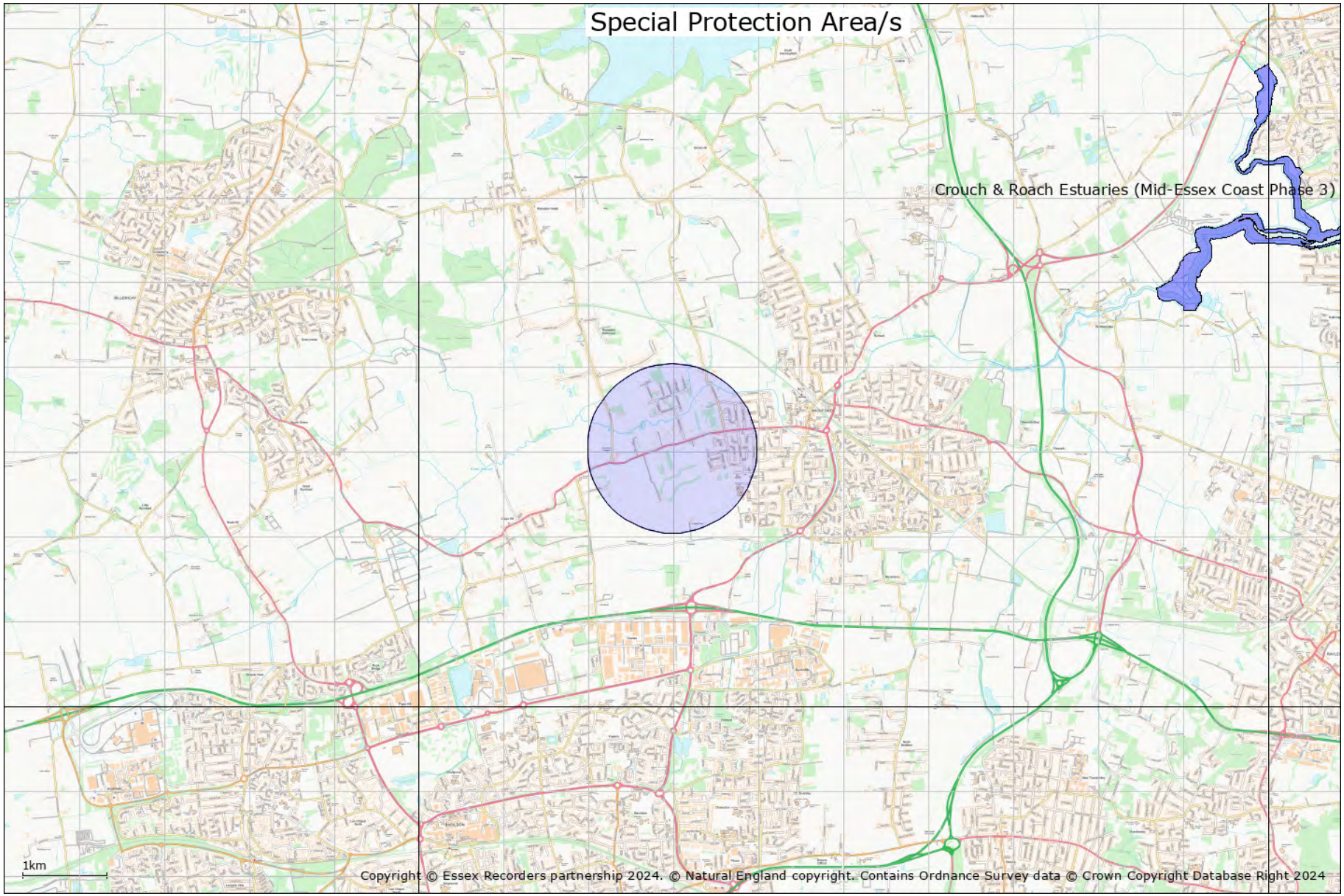
Special Protection Area/s
Crouch & Roach Estuaries (Mid-Essex Coast Phase 3)
1km
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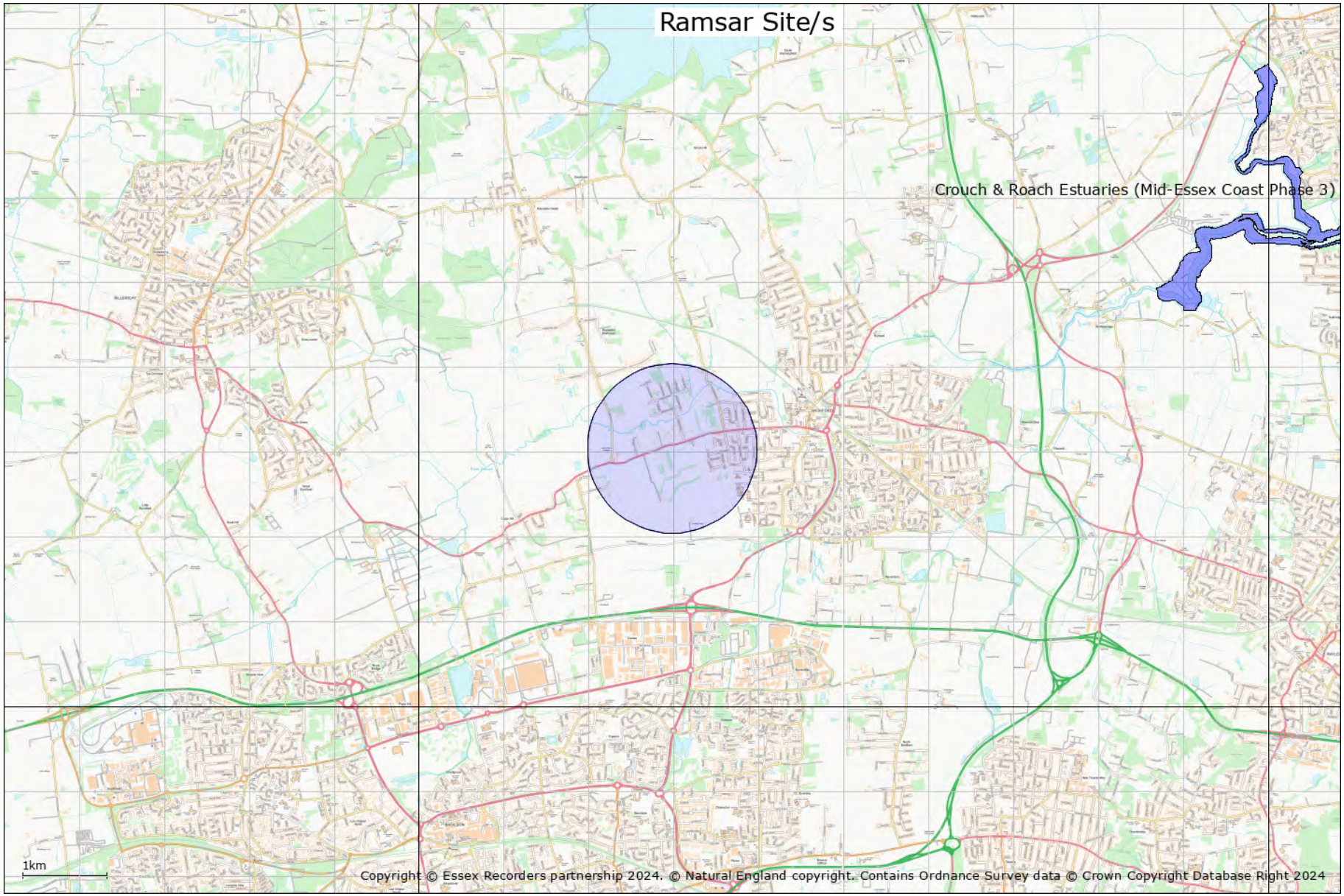
Ramsar Site/s
Crouch & Roach Estuaries (Mid-Essex Coast Phase 3)
1km
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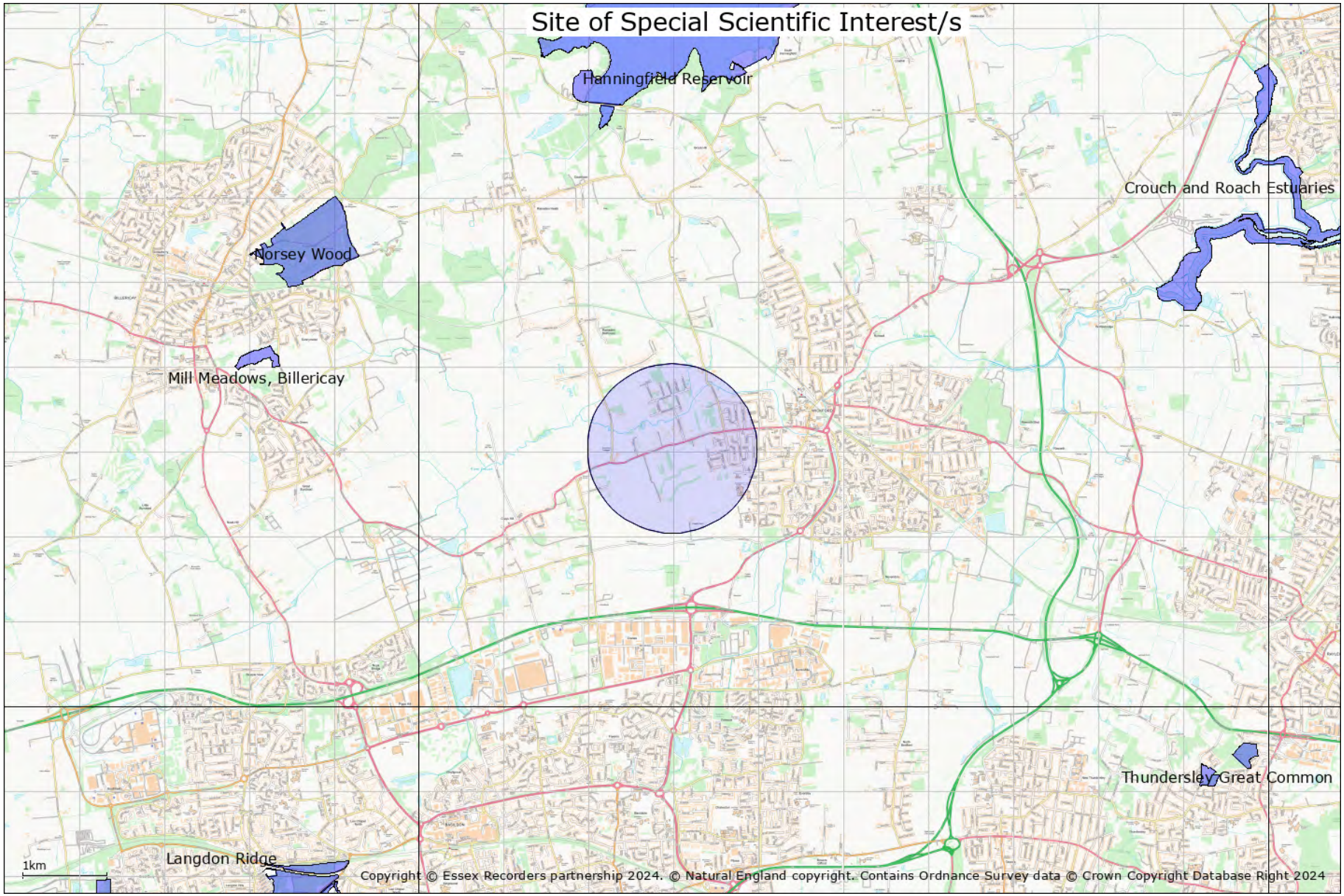
Site of Special Scientific Interest/s
Hanningfield Reservoir
Crouch and Roach Estuaries
Norsey Wood
Mill Meadows, Billericay
Thundersley Great Common
Langdon Ridge
1km
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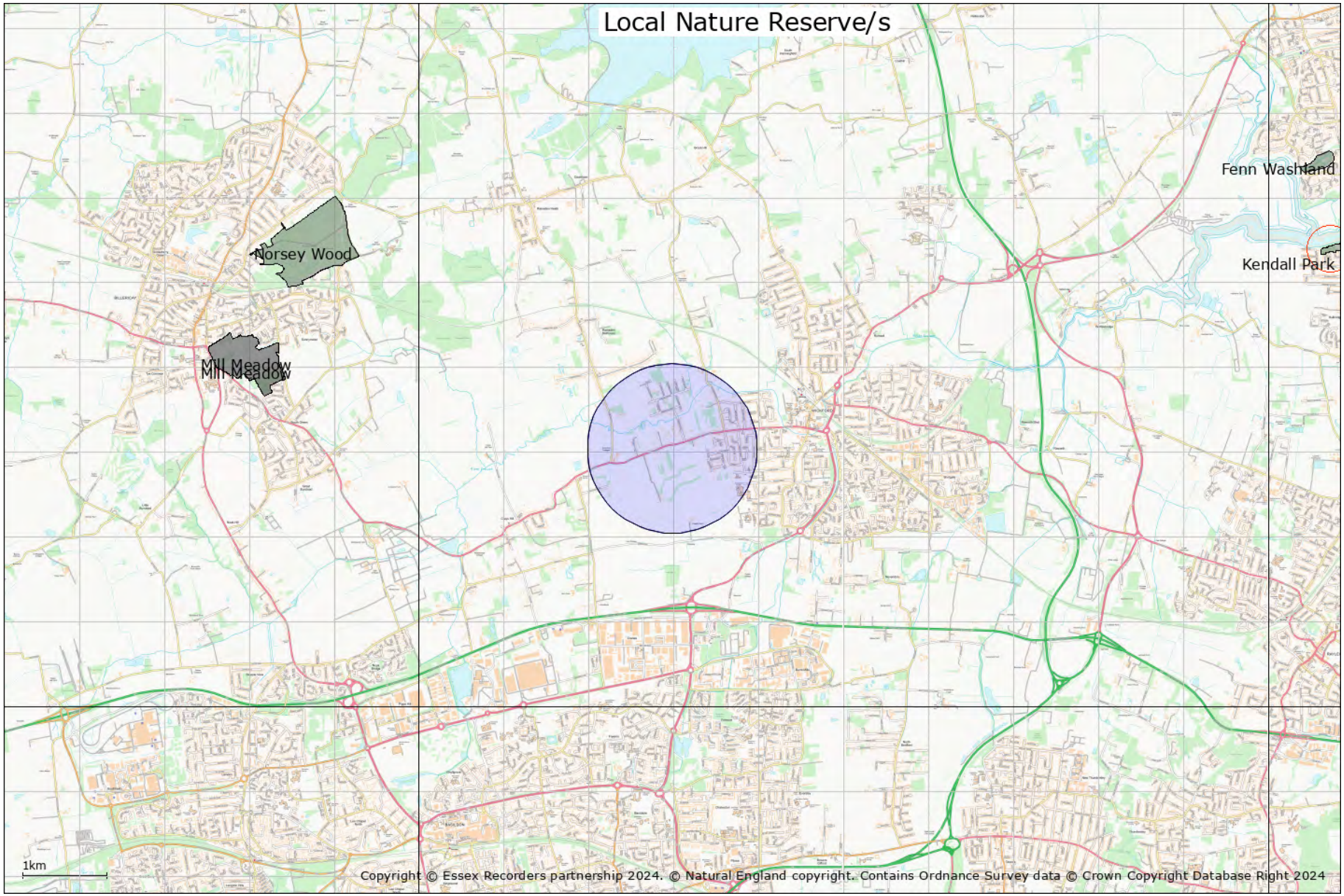
Local Nature Reserve/s
Norsey Wood
Mill Meadow
Mill Meadow
Fenn Washland
Kendall Park
1km
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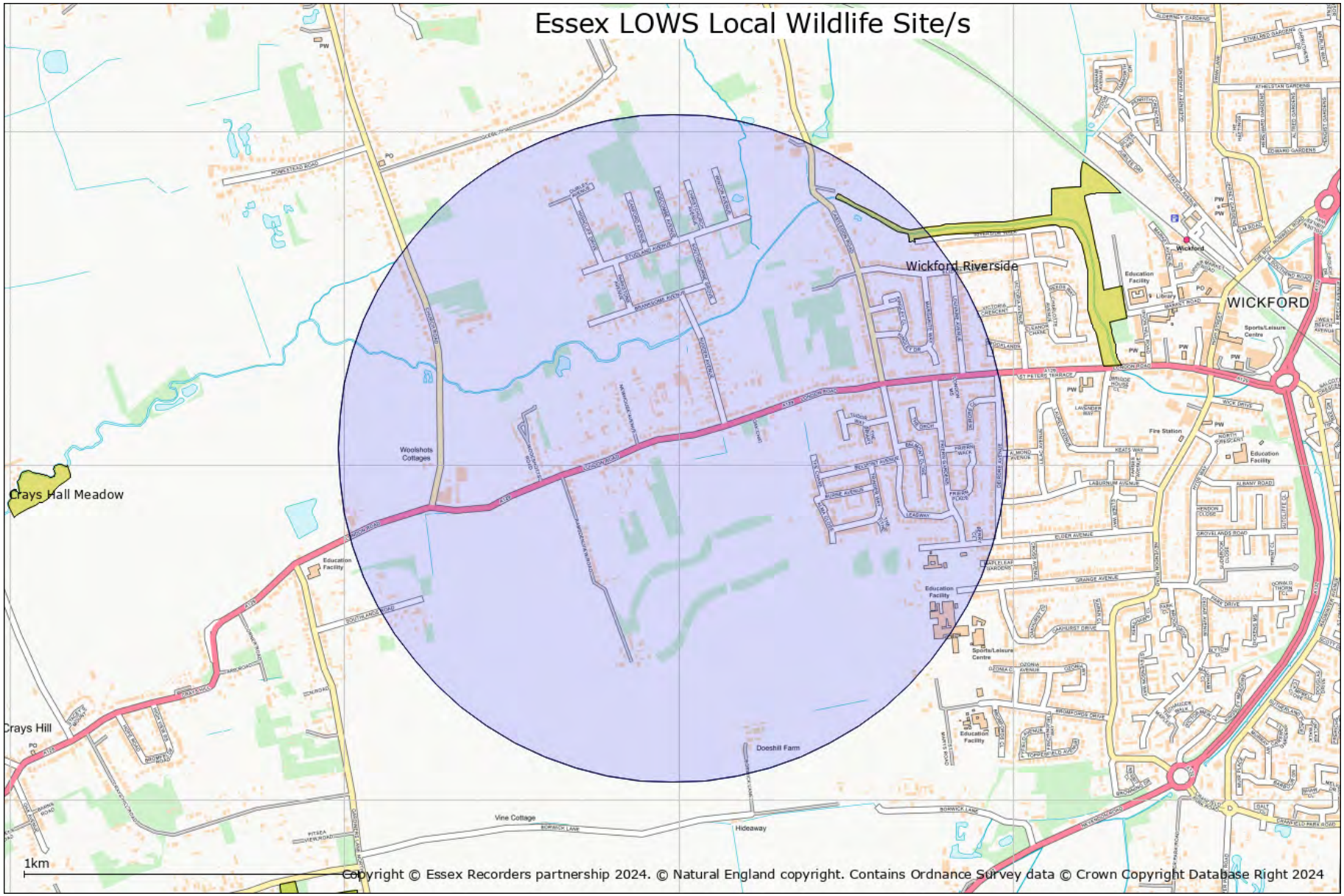
Essex LOWS Local Wildlife Site/s
Wickford Riverside
WICKFORD
Crays Hall Meadow
Crays Hill
Woolshots Cottages
Doeshill Farm
Vine Cottage
Hideaway
1km
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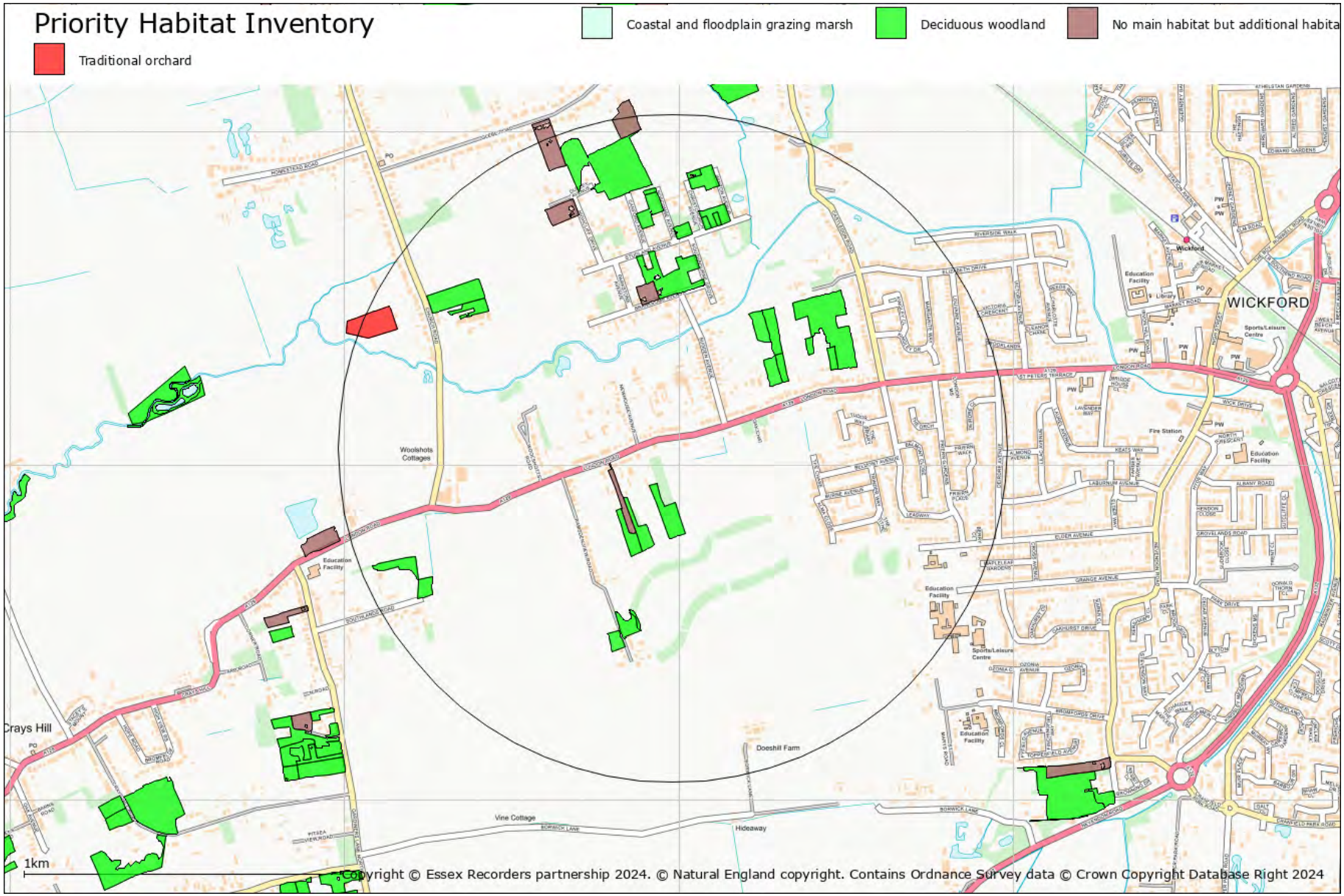
Priority Habitat Inventory
Coastal and floodplain grazing marsh
Deciduous woodland
No main habitat but additional habita
Traditional orchard
WICKFORD
Wickford
Woolshots Cottages
Crays Hill
Dooshill Farm
Vine Cottage
Hideaway
1km
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Appendix 3. Planting for pollinators

Flowers for bees

Allium species
Bird's foot trefoil (Lotus corniculatus)
Clovers (Trifolium species, for example red clover and white clover)
Cornflower (Centaurea cyanus)
Cranesbill (Geranium species)
Crocus species
Devil's bit scabious (Succisa pratensis)
Heliotrope (Heliotropium cultivars)
Hemp agrimony (Eupatorium cannabinum)
Honesty (Lunaria annua)
Lavender (Lavandula species)
Love-in-a-mist (Nigella damascena)
Marjoram (Origanum species)
Michaelmas daisies (Aster species)
Types of single-flowered rose species (Rosa species)
Rosemary (Rosmarinus officinalis)
Rosebay willowherb (Chamaenerion angustifolium)
Scabious (Scabiosa species)
Snowdrops (Galanthus species)
Sunflower (Helianthus annuus)
Teasel (Dipsacus fullonum)
Thyme (Thymus species)

Flowers for butterflies

Alyssum (Lobularia maritima)
Aubretia (Aubrieta deltoidea)
Blackberry (Rubus fructicosus)
Bugle (Ajuga reptans)
Candytuft (Iberis amara)
Catmint (Nepeta x faassenii)
Dandelion (Taraxacum officinale)
Globe thistle (Echinops species)
Heather (Calluna vulgaris)
Hebe species
Ice plant (Sedum spectabile) – not dark red cultivars
Knapweeds (Centaurea species)
Marigold (Calendula officinalis)
Mignonette (Reseda odorata)
Thistle (Cirsium species and Carduus species)
Verbena bonariensis
Verbena rigida

Appendix 4. Habitat boxes appropriate for the site

"Habibat" integrated bird and bat box designs

Available here: https://www.habibat.co.uk/bat-boxes

The Habibat Bat Box is a large, solid box made of insulating concrete with an internal roost space, which can be incorporated into the fabric of a building as it is built or renovated.

A variety of facings can be fitted to suit any existing brick, wood, stonework or rendered finish, rendering the box unobtrusive and aesthetically pleasing.

The Habibat box is suitable for species which are most commonly found roosting in buildings in the UK, such as Pipistrelle, Natterer's, Whiskered, and Brandt's bats.

All boxes in the Habibat Bat Range, are available in the following finishes:

- Unfaced for use with Render or Cladding Systems
- Standard Smooth Red, Blue, Buff
- Bespoke, to suit the product you are using on site
- As a Bat Maternity Box
- Coursed to suit existing brick or blockwork. This includes, English, Flemish, Stack or Stretcher. Speak to the Design Team to discuss which would be suitable to complete your build.

Integrated Eco Bat Box for buildings

Available here: https://www.nhbs.com/integrated-eco-bat-box

- Materials: Recycled LDPE plastic outer with internal FSC OSB roost chamber
- Construction: Outer panels welded, internal chamber formed from stapled panels
- Finish: Black carcass with red, green or black front panels
- Dimensions: 44cm x 21.5cm x 11.1cm
- Entrance: 1.7cm wide
- Internal (Cavity): Open roost chamber, 6cm wide
- Internal (Crevice): Two crevices, 2.2cm wide
- Weight: 3kg
- Access: No access once fitted, self-cleaning, droppings fall out of entrance slot
- Fixing: Held in brickwork by mortar/sealant

Vivara Pro 32mm woodstone bird box

- Dimensions (mm): 205 x 200 x 310
- Entrance hole: 28
- Weight (kg): 4.2
- Species: Tree sparrows, great tits, crested tits, nuthatches, coal tits and pied flycatchers
- Siting: Fix to a tree with an aluminium nail. These boxes are robust and do not rust, therefore reduce damage to the tree.

Vivara Pro open-fronted woodstone bird box

- Dimensions: 24cm x 19cm x 17.5cm (H x W x L)
- Entrance hole: Open
- Species: Suitable for wrens, robins, spotted flycatchers, pied and grey wagtails, song thrushes and blackbirds.
- Siting: Open fronted nest boxes should be sited in undergrowth such as ivy to provide cover for the nest. These nest boxes have a removable front panel for easy cleaning.

All Vivara Pro boxes can be found here - https://www.wildcare.co.uk

RSPB Silhouette Hedgehog Home - RSPB Shop