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Preliminary Ecological Appraisal (update):

Land East of 19 Orchard Way, Chigwell Row, Essex

On behalf of:
Mrs. Healy

Prepared by:
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Report version:
Version 1:
March 2022

Summary

Land on Orchard Way, Chigwell Row, Essex (the site) was visited on 1st March 2022 in response to a proposal for development. This report updates the Extended Phase 1 Habitat Assessment carried out by Tim Moya Associates in March 2019. This report provides the results of a new survey, making recommendations for further detailed surveys/mitigation/enhancement measures in the context of the proposal, referring to planning policy and best practice guidance, where appropriate.

Designated sites/Priority Habitats

- The site is not the subject of a conservation designation. For new residential development in this area, an Habitats Regulations Assessment (HRA) is required on the likely significant effects of recreation on Epping Forest Special Area for Conservation (SAC). A financial contribution may be required to offset recreational impacts. This should be agreed with Epping Forest District Council.

Legally protected species (summary):

- Nesting birds: The site is covered by bramble scrub and is bordered by trees. It is likely to support nesting birds between March and September inclusive. Any clearance of scrub and trees will be undertaken between October and February inclusive, unless an ecologist confirms that nesting birds are absent. Active nests will be left undisturbed until the young have fledged.
- Great crested newt: A pond c. 99 metres to the east of the site was accessed and subject to Habitat Suitability Index assessment (HSI) as a guide to determine whether it would be suitable for breeding, and therefore whether the site might be a terrestrial receptor. The pond is deemed unsuitable for breeding with an obvious lack of breeding substrate. The habitat on site comprises scrub with no obvious foraging, shelter or hibernation opportunities. The intervening habitat also presents several dispersal barriers including garden fencing and a road. For these reasons presence on site is unlikely. This report includes a basic method statement as a precautionary measure to be complied with during any clearance/development.

Enhancement proposal

The proposal includes native hedgerow planting and has scope to provide habitat boxes for nesting birds and bats. These measures could be secured via a Biodiversity Enhancement Layout (or similar) and would contribute to Government aims under Paragraph 174(d) of the National Planning Policy Framework 2021 and Local Plan policies which encourage 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 14 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 Mrs. Healy instructed Hybrid Ecology to produce a Preliminary Ecological Appraisal/Low Impact EclA for Land on Orchard Way, Chigwell Row, Essex (central grid reference: TQ4640893527). The site location is provided in Figure 1 and survey boundary is in Figure 2. The project involves the erection of a three storey building with associated car parking, amenity space and landscaping. The site plan is 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.
- 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 Biological records can be patchy, and some areas/species are under recorded, therefore absence of records for a species or group does not necessarily mean that there is a lack of ecological interest. Equally, the presence of records does not necessarily mean the habitat is still suitable for the species/group in question.
- 1.7 This report contains a species list, please note that winter is sub-optimal for identification of flowering plants, including invasive species. Whilst best efforts have been made to provide a comprehensive plant list, some species may reasonably be missed given the seasonality.
- 1.8 Some of the site is impenetrable, recommendations are made in this report to account for this.
- 1.9 This report is valid for 2 years, after which habitats are reasonably expected to have changed to warrant a re-survey.

Figure 1. Location plan

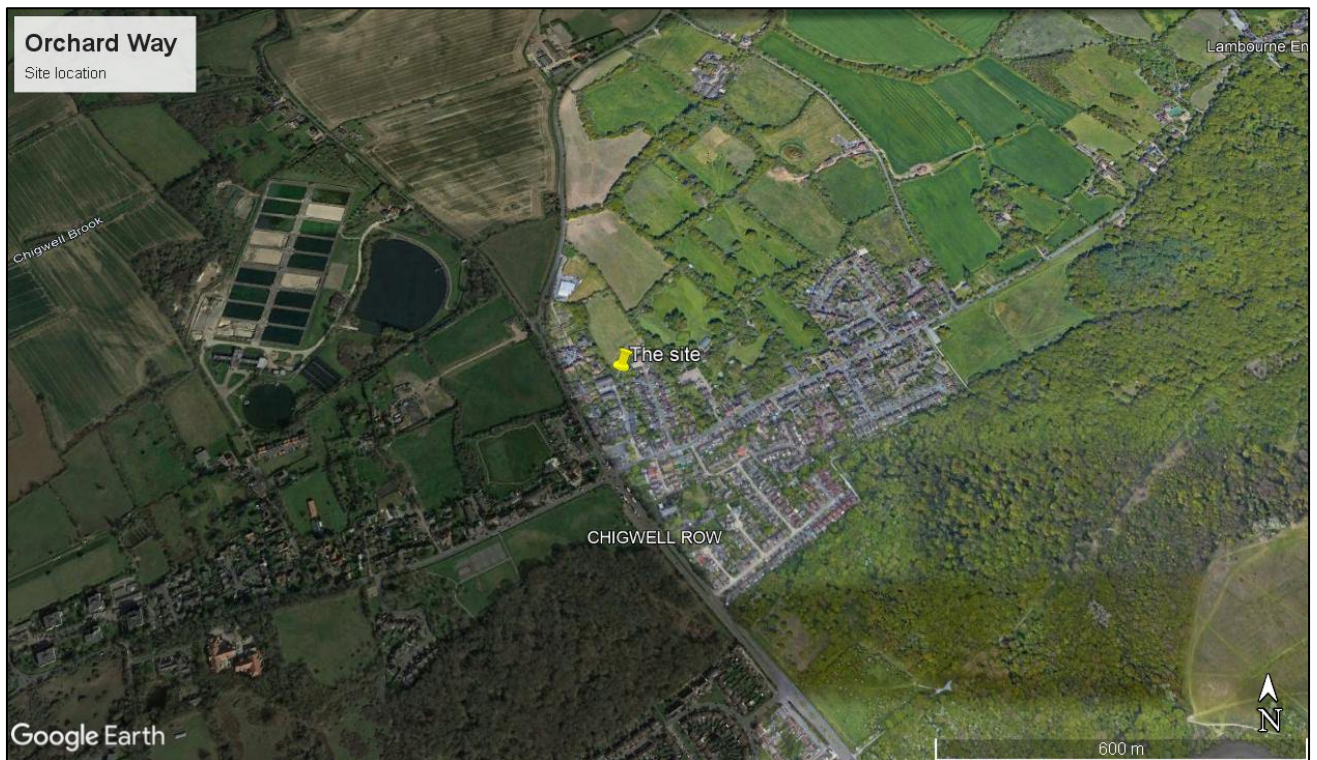


Figure 2. Survey boundary (approximate)



2.0 Planning Policy and Legislation

National Planning Policy Framework (2021): Conserving and Enhancing the Natural Environment

Please note the below policies have been taken directly from the National Planning Policy Framework, which can be found here: [National Planning Policy Framework - GOV.UK \(www.gov.uk\)](https://www.gov.uk/national-planning-policy-framework)

Paragraph 174

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;

Paragraph 179

2.2 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 180

2.3 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 181

2.4 The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;
- b) listed or proposed Ramsar sites; and
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

Paragraph 182

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), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

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](https://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 LoWSs 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 species

- 2.14 The Conservation of Habitats and Species Regulations (2019, EU Exit) affords protection to various species/species groups including bats (all species), great crested newt, otter and dormouse.
- 2.15 The Wildlife and Countryside Act 1981 (as amended) is the main source of legal protection for wildlife in England and was strengthened by the Countryside and Rights of Way Act 2000. Species protection is provided under Schedules 1, 5, 6 and 8 to species including bat, great crested newt, water vole, otter and nesting birds. Badgers are protected separately under the Protection of Badgers Act (1992).

Species and Habitats of Principal Importance in England (or Priority habitats/species)

- 2.16 The Natural Environment and Rural Communities Act (2006) places a duty on Local Planning Authorities to conserve and enhance certain habitats and species. The species that have been designated to be of “principal importance for the purpose of conserving biodiversity” are those that are most threatened, in greatest decline, or where the UK holds a significant proportion of the world’s total population. They mainly derive from lists originally drawn up for the UK Biodiversity Action Plan (UK BAP). Similarly, the list of habitats of principal importance in England also derive from the UK Biodiversity Action Plan.

3.0 Methodology: Desktop Study

Mapping exercise

- 3.1 Aerial imagery (Google Earth Pro, 2021) 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 whether the site falls under the scope of the Essex Coast Recreational Avoidance and Mitigation Strategy (Essex Coast RAMS), in relation to Essex coastal sites.
 - 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 European Protected Species (EPS) mitigation licenses granted by Natural England for great crested newt or bats within a 5km radius of the site that could be relevant to this development.

Biological Records Search

- 3.3 A data search was ordered from Essex Field Club in March 2022 to inform this assessment. This included all legally protected and priority species within 2km.

4.0 Methodology: Habitats and Species

Phase 1 Habitat Survey

- 4.1 An ecological walkover survey was carried out on 1st March 2022 by ecologist Gemma Holmes (BSc Hons ACIEEM). The survey included all land shown in Figure 2 and an off-site pond. The survey was undertaken broadly in accordance with the Handbook for Phase 1 Habitat Survey (JNCC 2010).

Protected/priority species scoping

- 4.2 The survey also included an assessment of the site's potential to support any legally protected species; or Species and Habitats of Principal Importance, as identified by Section 41 of the Natural Environment and Rural Communities Act (2006). 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 2016) and Habitat Suitability Index for Great Crested Newt (Oldham et al, 2000).
- 4.3 In accordance with BCT, 2016, trees on site were subject to Preliminary Roost Assessment for bats. This included a ground-level search to identify potential roost features, such as voids/crevices (buildings) and woodpecker holes, flaking bark, open wounds. Trees were assigned a "bat roost suitability" based on features/evidence found, in accordance with Figure 3.

Figure 3. Guidelines for assessing potential suitability of development sites for bats (BCT, 2016)

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.		
Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^a 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 or hibernation ^b). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. ^c	Habitat that could be used by small numbers of commuting bats 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 or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^a and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are 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 commuting 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 or tree 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 ^a and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats 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.

- 4.4 The great crested newt Habitat Suitability Index (HSI) assessment was undertaken based on methodologies detailed in Oldham *et al.*, 2000. The HSI is a quantitative measure of the suitability of a pond to establish the likelihood of GCN being present. The assessment is based on ten factors including pond area, shade, terrestrial habitat and water quality. The resulting index for each pond is expressed as a figure between 0 and 1, with scores below 0.5 indicating poor suitability for GCN and above 0.8 indicating excellent suitability. One off site pond, c. 99 metres to the east was assessed.

The Mitigation Hierarchy

- 4.5 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 or damage of 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

- 4.6 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 is located in Chigwell, Essex. It is surrounded by residential development to the south, west and east. To the north and west are areas of grazing paddocks, hedgerows and arable fields. Areas of woodland, including Hainault Forest, lie south of the site. The surveyed site covers approximately 0.05 hectares.

Designated sites and Priority Habitats

- 5.2 The site is not the subject of a conservation designation. The closest designation is Chigwell Row Wood, 0.3km to the south-east. Hainault Forest SSSI/Local Wildlife Site is 0.4km south-west. Other sites within 2km include Hainault Lodge LNR (1.7km south).
- 5.3 The proposed development site is located 5.2 km south-east of Epping Forest SAC and SSSI, although not located within the designated site boundary. The scale of the proposed development is small, comprising two units. The proposed development would not be expected to cause any direct disturbance, pollution or other direct impacts on the designated sites. The development may lead to a slight and very localised increase in population close to the Epping Forest SAC and SSSI. The resulting increase in recreational pressure on Epping Forest would be at a very small scale, given that the proposed development will include a garden. EFDC may need to undertake Habitats Regulations Screening and/or Assessment to assess any impact of the proposed development on the SAC site. EFDC Draft Policy DM4 details the provision of Suitable Accessible Natural Green Spaces and Corridors (SANGSC) to mitigate against potential or identified adverse impacts of additional development on the Epping Forest SAC. EFDC will need to advise whether the proposed development falls below their threshold for requiring financial contributions into the SANGSC scheme. Further detailed advice is given in the Epping Forest Special Area of Conservation (SAC) – Interim Position Statement published on 10th May 2018.
- 5.4 The proposed development site is located 340 m north-west of Chigwell Row Wood LNR and 410 m north-east of Hainault Forest SSSI. The scale of the proposed development is small, comprising two units. The proposed development would not be expected to cause any direct disturbance, pollution or other direct impacts on the designated sites. The development will lead to a slight and very localised increase in population close to Chigwell Row Wood and Hainault Forest.
- 5.5 Given the distance to Essex coastal sites, the site is not within the scope of the Essex Coast RAMS and a financial contribution is not required for this development.
- 5.6 There is no Priority Habitat on or adjacent to the site that will be affected.

EPS licenses

- 5.7 The closest EPS licence is approximately 1km to the south-west (reference 2017-31520-EPS-MIT) and concerned several bat species. Given the distance and lack of connectivity to the site, this is not relevant and is considered no further.

Sites evaluation: An HRA will be undertaken by EFDC and a financial contribution may be required in relation to recreational pressures at Epping Forest SAC. This will be agreed with EFDC and a financial contribution will be secured via legal agreement where required.

6.0 Results: Phase 1 Habitat Survey

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.

Dense/scattered scrub

- 6.1 The site is dominated by dense bramble *Rubus fruticosus* agg. scrub. This has been partially cleared around the edges to allow survey access. There are several scattered elder *Sambucas nigra* in the centre and Stags horn sumach *Rhus typhina* to the south. Understory species include common nettle *Urtica dioica*, snowdrop *Galanthus* sp., daffodil, cow parsley *Anthriscus sylvestris*.

Individual trees

- 6.2 Trees include a collapsed willow *Salix* sp. to the east and several Lawson Cypress *Chamaecyparis lawsoniana* to the west. There are scattered willow and elder in the centre, and Stags horn sumach along the southern edge. The trees on site appear to be in poor condition and their removal would not be ecologically significant.
- 6.3 Where appropriate, retained trees will be protected in accordance with British Standard 5837 (2012) Trees in Relation to Design, Demolition and Construction – Recommendations. Arboricultural advice will be sought in the event any work is required inside Root Protection Areas.

<p>Habitats evaluation: The site contains habitats that are common and widespread, significant at Site Level only.</p>

Figure 4. Photographs



a) Front of the site (southern boundary).



b) Rear of site, view to the north.



c) General character of vegetation on the site.



d) Western boundary with collapsed willow.



e) Collapsed willow tree.



f) Dense bramble along western boundary.

7.0 Results: Protected/Priority Species Scoping

This section includes the results of the scoping assessment carried out during the survey and provides data records, habitat requirements for species/species groups and assessment.

Bats

Data records:

- 7.1 Brown long-eared bat, pipistrelle sp. and Daubenton's bat have been recorded within 0.5km.

Habitat requirements:

- 7.2 Bats roost in buildings, trees and underground sites. Buildings with large, uncluttered loft voids, external crevices and missing roof tiles are often suitable, particularly when a building is close to a foraging resource – e.g. woodland or water. Trees with cavities, woodpecker holes, hazard beams and flaking bark are also suitable for roosting.
- 7.3 There are no buildings on the site. The flats to the immediate west have negligible bat roost potential.
- 7.4 There is a collapsed willow tree on the eastern boundary. The cracks were inspected and no bat roost potential (i.e. no voids/crevices) were seen. This tree has negligible bat roost potential. All other trees on site are young-early-mature and no potential roost features were seen.
- 7.5 The site provides very limited habitat suitable for foraging or commuting bats. The trees to the west and the habitat connectivity off-site may mean small numbers of bats may forage across the site opportunistically, but this behaviour will reasonably continue once development is complete.

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

Further survey requirement	None
Avoidance	None
Mitigation	To minimise light pollution, any lighting required for this development will be minimal, only directed to where it is needed, ideally on timers and will comply with Bats and Artificial Lighting (2018) Guidelines.
Compensation	None
Enhancement	There is scope to provide bat features on the new building – see Section 8.

Great crested newt

Data records:

- 7.6 The closest great crested newt record is 0.7km from the site.

Habitat requirements:

- 7.7 Great crested newt (GCN) requires both terrestrial and aquatic habitats. They return to aquatic habitat to breed March-June, using small to medium ponds with no fish and suitable marginal vegetation including watercress and float grass (Froglife 2001). Terrestrial habitat includes refuges and foraging and dispersal opportunities as well as hibernation sites such as rubble piles or mammal burrows. It is rare to find GCN over 250 metres from a breeding pond (Cresswell & Whitworth 2004).

Assessment:

- 7.8 There are no ponds on the site. The closest pond (Pond 1) is c. 99 metres to the east, beyond houses – see Figure 5 and Appendix 3. This pond is used for drainage purposes and contained shallow water on the day of the survey. It is understood this pond dries early in Spring. The pond is heavily shaded by mature ash, sycamore and willow trees (c.95% shading). Duckweed *Lemna sp.* is present but there is no suitable breeding substrate (e.g. aquatic grasses). An Habitat Suitability Index assessment was carried out and is included in Appendix 3. The HSI indicates “poor” suitability, based on there being limited ponds in the landscape, poor water quality, dense shade and annual drying. The pond also lies beyond housing and gardens which reasonably will restrict any amphibian dispersal onto the site.
- 7.9 Based on the above and considering the limited scale of the site (0.05 hectares), great crested newt presence is unlikely. The basic method statement included in the table overleaf will be followed to remove any residual risk of harm.

Figure 5. Off-site pond



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

Further survey requirement	None
Avoidance	<ul style="list-style-type: none">• All contractors must read this report prior to commencement and will therefore be made aware of the legal protection of GCN, the reasons for this Method Statement, how to identify a GCN, and what to do if a GCN is found during works. All contractors will be provided with a copy of this Method Statement, and an ID sheet (see Appendix 4) for reference purposes.• Scrub will be removed using hand tools (e.g. brushcutter) and reduced down to 10-15 cm. The area will be checked by hand and the remainder of scrub reduced to ground level once it is clear amphibians are absent.• Once clear, the site will be maintained in as close to bare condition to discourage future colonisation.• If at any point GCN are found, work will cease until the advice of an ecologist has been sought.
Mitigation	None
Compensation	None
Enhancement	None

Dormouse

Data records:

7.10 There are no dormouse records within 2km of the site.

Habitat requirements:

7.11 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:

7.12 The site contains bramble which is dense in places but does not provide suitable conditions for dormouse, with limited arboreal connectivity and a lack of diversity. There is no hazel or honeysuckle (e.g. favoured forage) and there is no connectivity into species-rich hedgerows or ancient woodland.

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

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

Otter and water vole

Data records:

- 7.13 Otter has been recorded 1.1km from the site. Water vole has been recorded 1km from the site.

Habitat requirements:

- 7.14 Both species require flowing water, deep enough to support foraging behaviour and with connectivity into the wider landscape.

Assessment:

- 7.15 There is no suitable aquatic habitat on or adjacent to the site.

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

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

Reptiles

Data records:

- 7.16 There are several records for grass snake within 2km. The closest is 0.4km from the site.

Habitat requirements:

- 7.17 Reptiles (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:

- 7.18 The site is dominated by bramble and contains no rough grassland, log piles, buried rubble or mammal burrows. Whilst undisturbed, the habitat is unlikely to be a sufficient size, scope or contain sufficiently open, diverse and structured habitat to attract a large population. Any reptiles on the site would likely be a fringe population which would be centred in gardens/away from the site. To discourage colonisation and protect any transient reptiles that could disperse across the site, the precautionary actions in the table below are recommended.

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

Further survey requirement	None
Avoidance	Once cleared as per GCN “avoidance” measures, the site will be maintained as bare ground until development commences to discourage colonisation.
Mitigation	In the unlikely event reptiles are found, they will be carefully captured and released into habitat off-site to the west.
Compensation	None
Enhancement	None

Birds

Habitat requirements:

- 7.19 Nesting birds use buildings, scrub and trees between March and August inclusive (note some species including pigeon will nest all year round).

Assessment:

- 7.20 Generalist, common nesting birds are likely to use the scrub and boundary trees. There is no potential for ground-nesting or Schedule 1 listed birds (e.g. barn owl).

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

Further survey requirement	None
Avoidance	Scrub clearance and tree work will be carried out between October – February or if an ecologist carries out a nest check and confirms absence.
Mitigation	None
Compensation	None
Enhancement	There is scope to provide bird boxes – see Section 8.

Badger

Data records:

7.21 Badger has been recorded 1.4km from the site.

Habitat requirements:

7.22 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:

7.23 No badger setts, or any other signs alluding to use of the site by badger were identified on the site.

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

Further survey requirement	None
Avoidance	Given some of the scrub was impenetrable, a careful check for mammal burrows will be undertaken during clearance. If large burrows are encountered, work will cease until ecological advice has been sought.
Mitigation	<p>To protect any mammals that might disperse across the site at night, the following measures are recommended during construction:</p> <ul style="list-style-type: none">• Any trenches or deep pits that are to be left open overnight should be provided with a means of escape should a badger enter. This could simply be in the form of a roughened plank of wood in the trench as a ramp to the surface.• Any trenches/pits should be inspected each morning before work commences to ensure no badgers have become trapped overnight. Should a badger be found then formal ecological advice must be sought before work commences for the day.• The storage of topsoil or other 'soft' building materials within the site should be given careful consideration. Badgers will readily adopt such mounds as setts, which would then be afforded the same protection as established setts. So as to avoid the adoption of any mounds, they should be subject to daily inspections before work commences.• 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.• Open pipework with a diameter of more than 120mm should be properly covered at the end of the work day to prevent badgers entering

	and becoming trapped. Again, should a badger trap itself then formal ecological advice must be sought before work commences for the day.
Compensation	None
Enhancement	None

Legally protected plants/invertebrates

Assessment:

- 7.24 The site contains common, widespread habitats that are typical of similar environments locally. Such habitats are unlikely to support notable plants or insects.

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

Further survey requirement	None
Avoidance	None
Mitigation	None
Compensation	None
Enhancement	The project includes native hedgerows around the northern and eastern boundaries.

8.0 Ecological Constraints and Opportunities

Legally protected species (summary):

Nesting birds

- 8.1 All nesting birds receive basic legal protection from killing and injury. The scrub and boundary trees and are likely to support nesting birds between March and September inclusive. Clearance/tree work will be carried out between October – February inclusive to avoid impacts, unless nesting birds are confirmed absent by an ecologist. Any active nests (e.g. supporting eggs, chicks or young) found must be left undisturbed with an appropriate buffer zone until the young have fledged.

Great crested newt

- 8.2 Presence is unlikely, the method statement included in this report is sufficient to remove any residual risk of harm.

Opportunities

- 8.3 Biodiversity net-gain is now mandatory under Paragraph 174(d) of the National Planning Policy Framework (2021). The following recommendations are reasonable and proportionate and would contribute to net-gain, they could be secured via a Biodiversity Enhancement Layout or similar:

- The development will include native hedgerows along the northern and eastern boundaries. Recommended species include hawthorn, field maple, guelder rose, holly and hornbeam.
- At least 2 no. long lasting woodcrete / woodstone bird boxes targeting house sparrow and wren should be provided within the site boundaries. The bird boxes should be located at a height of at least 2m, and face between north and east. Wren roundhouses / boxes should be located c.1m high in hedges, shrubbery or similar vegetation cover.
- Where possible/practical, bat roost features (such as tile, tube or brick) could be integrated into the new building or be installed on a gable end. Bat features should be installed above 2 metres and face south, south-east or south-west and close to established vegetation for maximum chance of occupation.

See Appendix 5 for habitat box recommendations.

9.0 Conclusions

- 9.1 Hybrid Ecology was instructed to carry out an updated ecological assessment in relation to a proposed development. A mapping exercise was undertaken to determine constraints relating to designated sites and Priority Habitats. A survey was carried out in March 2022 to map habitats and identify any potential for/evidence of legally protected species. The survey also identified opportunities for ecological enhancement.
- 9.2 There were limited changes to habitats and species presence/potential since the 2019 survey. The site contains limited habitats that are common and widespread, no potential for/evidence of legally protected species was identified, other than nesting birds. Further surveys are not required. Mitigation measures outlined in this report in relation to habitats and species will be followed.
- 9.3 If development has not commenced within 2 years of this report, a further walkover survey should be carried out.

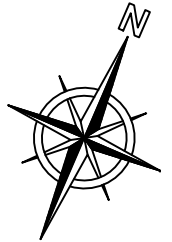
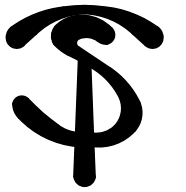
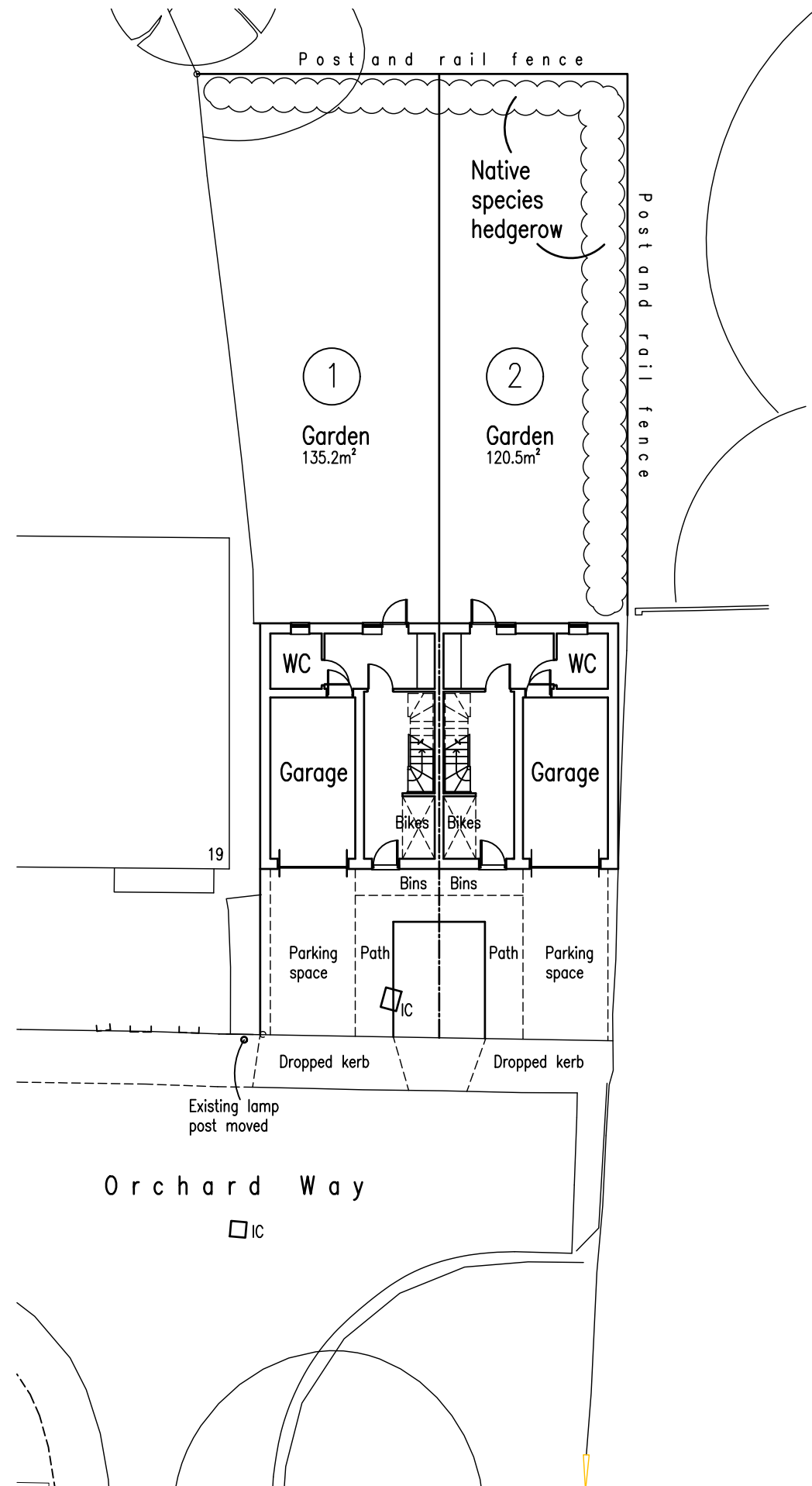
Enhancement opportunities

- 9.4 The development includes hedgerow planting and will provide habitat boxes for roosting bats/nesting birds where practical. These measures will contribute to biodiversity net-gain in accordance with Paragraph 174(d) of the NPPF (2021). These measures could be secured by condition.

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Appendix 1. Site plan



JSP Chartered Town Planners and Design Consultants

1 Basons Yard,
High Street, Ongar,
Essex CM5 9AA

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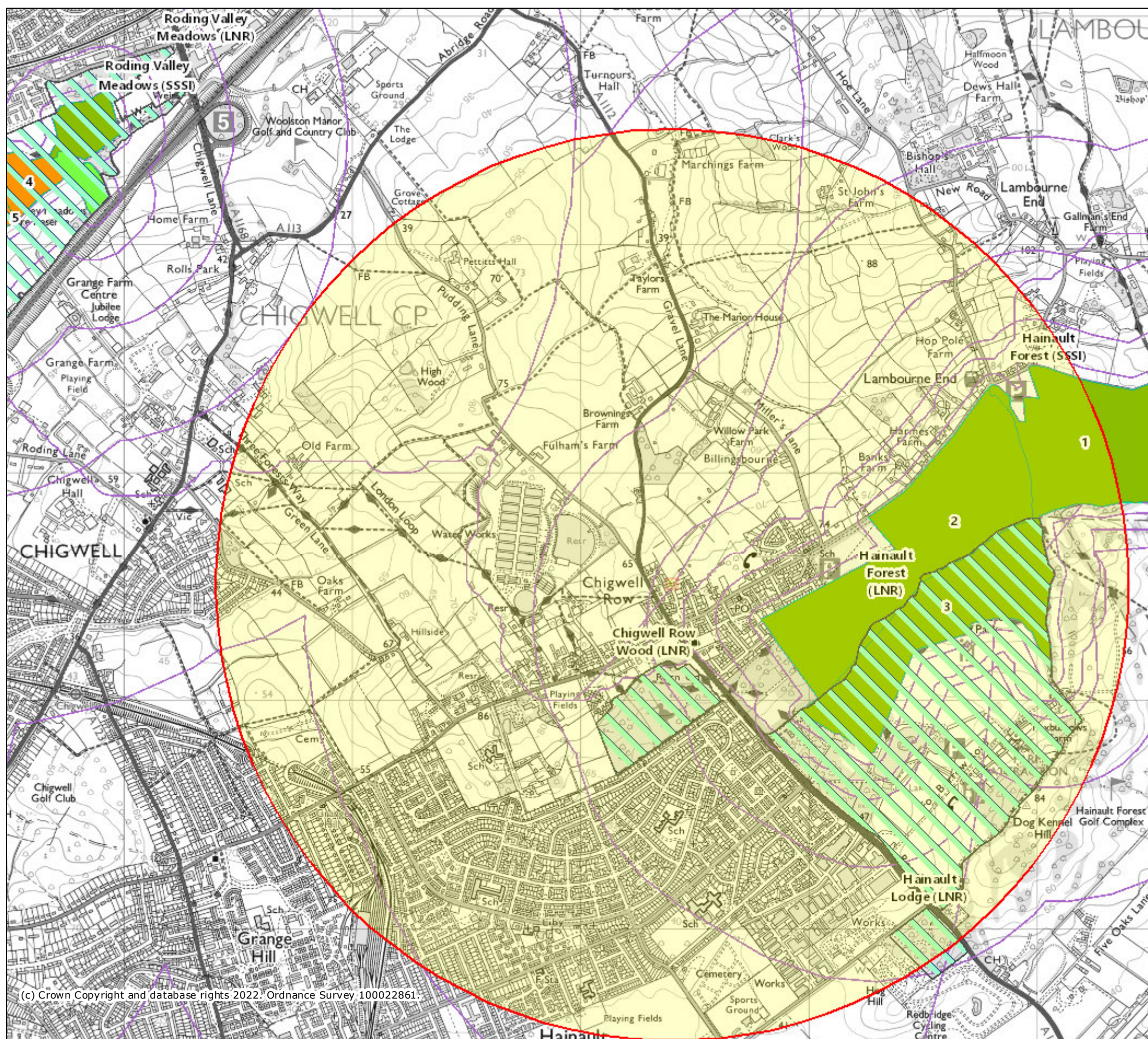
Site Land at Orchard Way,
Chigwell Row IG7 6EE

Title Residential Development

Drawing Proposed Site Plan

Scale 1:200 @ A3
Date Feb 2020
Number 2761.2

Appendix 2. MAGIC map

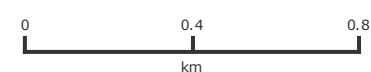


Legend

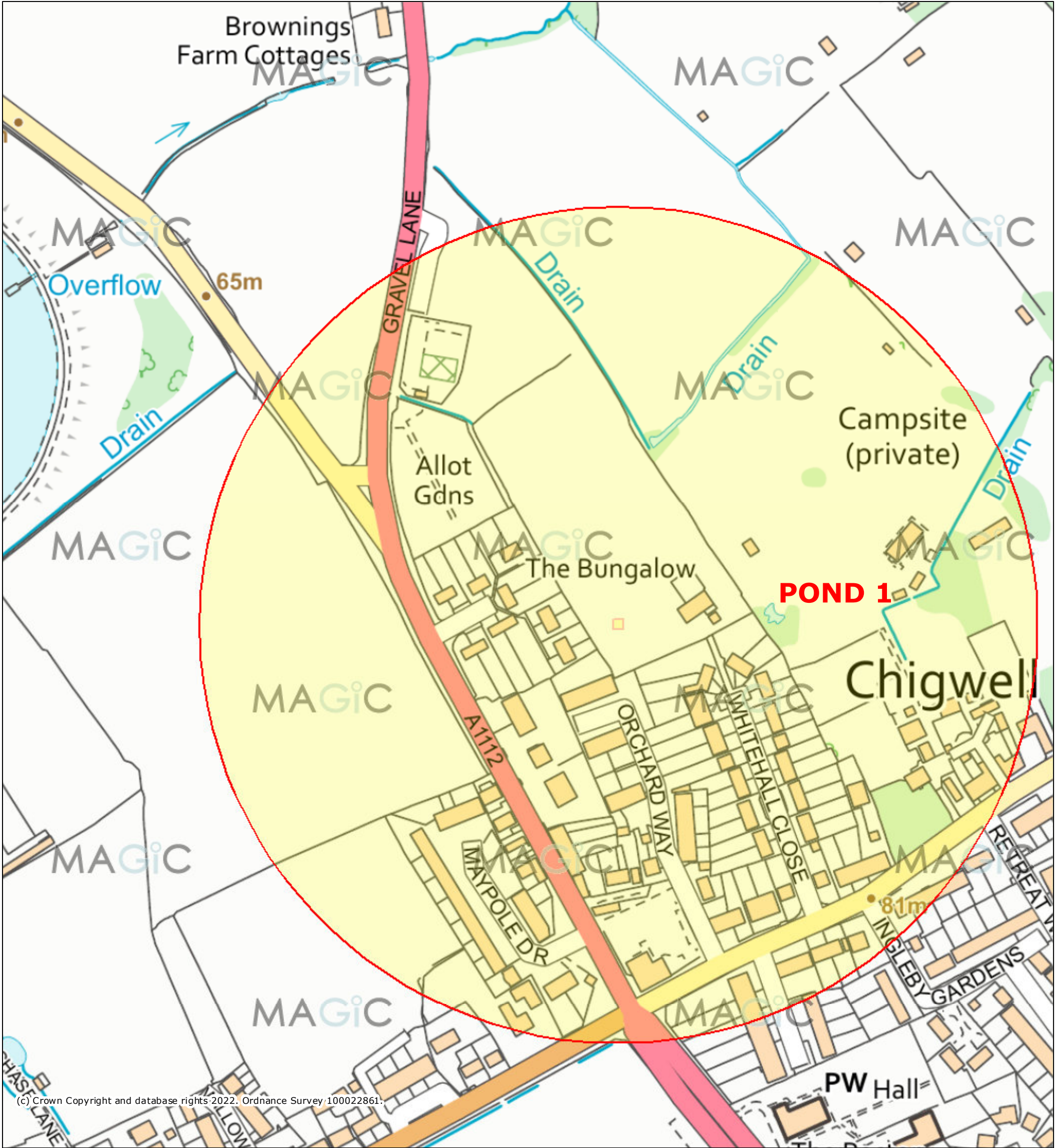
- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Sites of Special Scientific Interest Units (England)**
 - Favourable Condition
 - Unfavourable Recovering
 - Unfavourable no change
 - Unfavourable Declining
 - Part Destroyed
 - Destroyed
 - Not Assessed
- Sites of Special Scientific Interest (England)
- SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)

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 ymax = 196000

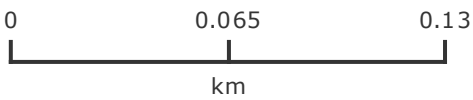
Map produced by MAGIC on 7 March, 2022.
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Appendix 3. Ponds within 250 metres and HSI on Pond 1



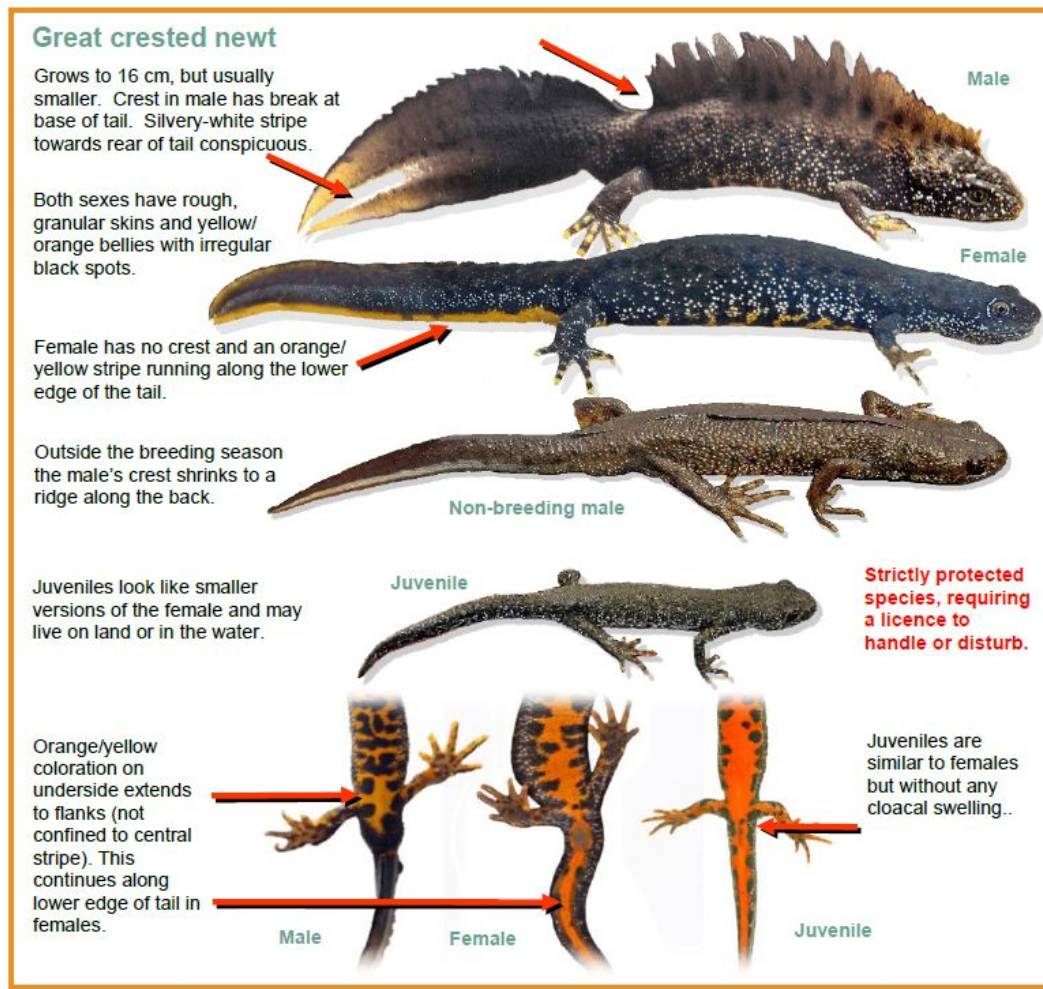
(c) Crown Copyright and database rights 2022. Ordnance Survey 100022861.



Projection = OSGB36
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Sl ₁		Sl ₂		Sl ₃		Sl ₄		Sl ₅		Sl ₆		Sl ₇		Sl ₈		Sl ₉		Sl ₁₀		Product	HSI	Suitability
Location		Pond Area		Pond Drying		Water Quality		Shade		Fowl		Fish		Ponds		Terrestrial Habitat		Macrophytes				
Zone A	1	100m2	0.2	Dries Annually	0.1	Moderate	0.67	91-95%	0.3	Minor	0.67	Absent	1	3	0.65	Poor	0.33	1-5%	0.35	0.000202207	0	Poor

Appendix 4. GCN ID sheet



Appendix 5. Recommended habitat features



Sparrow terrace (<http://www.wildlifeservices.co.uk/nestboxes/sparrowterrace.jpg>)



Open fronted nest box (<https://www.nhbs.com/vivara-pro-barcelona-woodstone-open-nest-box>)



Schwegler 1FR Bat Tube, to be integrated into building wall, and either bricked in or rendered. Self-cleaning. Dimensions: 47.5 x 20 x 12cm.



Beauman's bat box for gable ends