Preliminary Ecological Appraisal Report

Lanes End Farm, Gastard, Corsham, Wiltshire, SN13 9QS

This report contains sensitive information regarding badgers which must be treated as confidential. This information must be redacted if the report is released into the public domain.

Client	Mr Salmon
Reference	2023-016
Version	1
Date	27/06/2023

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Document History

Version	Date Issued	Revision
1	27/06/2023	Issued to the client.

Disclaimer

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The summary of wildlife legislation provided is for general guidance only and does not in any way provide legal opinion or a definitive statement of the law. For detailed information, the legislation itself should be reviewed and a legal professional consulted.

Smart Ecology cannot be held liable for any information provided by third parties which is referenced within this document.

The evidence in this document is based upon the field survey(s) detailed. Due to the changing nature of ecology the list of species present cannot be considered comprehensive and Smart Ecology cannot guarantee that other protected/notable species and habitats are not present.

The ecology of a site is constantly changing and therefore the information provided in this document is only relevant at the time of survey. **If it has been over 12 months since this survey was undertaken advice should be sought on whether an updated survey is necessary.**

The evidence which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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Non-Technical Summary

Purpose of Report	Smart Ecology was commissioned by Mr Salmon to undertake a Preliminary Ecological Appraisal of land at Lanes End Farm, Gastard, Corsham, Wiltshire, SN13 9QS. The purpose of the appraisal was to inform a planning application to Wiltshire Council for the installation of a caravan on a geotextile membrane in the north of the site and the creation of an unpaved pedestrian access track along the western side of the improved grassland field.
Methodology	A desk study and an Extended Phase 1 habitat survey were undertaken.

Ecological Feature	**Potential Impacts without Mitigation** (refer to Section 5)	**Required Surveys/Mitigation** (refer to Sections 6.1 & 6.2)
Bats	Artificial illumination of hedgerows could disturb foraging and commuting bats.	Avoid installing external lighting. Mitigate for impacts if external lighting is essential.
Birds	If long-sward grassland is removed during the nesting season (which is typically March to August inclusive) then there is potential for the killing/injury of birds and destruction of active nests.	The long-sward grassland must either be cut outside of the nesting season, or it must be checked for active nests by an ecologist no more than 48 hours before cutting; if active nests were then found to be present then these would have to be left undisturbed until the young had fledged.
Badger	Damage/destruction of a sett and disturbance, killing or injury of badgers during works, including if any new setts or entrance holes to the existing sett are created on the site post-survey.	A check of the site for newly created setts/entrance holes must be carried out by a suitably qualified ecologist shortly before the commencement of works. Implement Reasonable Avoidance Measures (RAMs) during site clearance/preparation and works to avoid disturbance, injury or death.
Amphibians & reptiles	Injury, death, or disturbance during site clearance/preparation and works.	Implement Reasonable Avoidance Measures (RAMs) during site clearance/preparation and works to avoid injury, death, or disturbance.

Conclusions	The proposed development would not impact any statutory designated sites or ecologically important or protected habitats. No significant impacts on protected or notable species are considered likely if the mitigation measures provided in this report are implemented.

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1 Introduction

1.1 Background

1.1.1 Smart Ecology was commissioned by Mr Salmon to undertake a Preliminary Ecological Appraisal of land at Lanes End Farm, Gastard, Corsham, Wiltshire, SN13 9QS (central national grid reference ST 8864 6857). Refer to Figure 1, Section 10 for a location map, which shows the survey area delimited by a red-line boundary (hereafter referred to as the "site").

1.1.2 The purpose of the appraisal was to inform a planning application to Wiltshire Council for the installation of a caravan on a geotextile membrane in the north of the site and the creation of an unpaved pedestrian access track along the western side of the improved grassland field. Refer to Appendix 1 for the proposed site plan.

1.1.3 This report has been prepared by Joseph Wilkie, an ecologist at Smart Ecology and a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM), with reference to CIEEM's Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017a), Guidelines for Ecological Report Writing (CIEEM, 2017b), and BS42020 Biodiversity – a code of practice for planners and developers (BSI, 2013).

1.2 Site Context

1.2.1 The survey area is approximately 0.74 ha and comprises an improved grassland field bounded by hedgerows and trees. The wider landscape predominantly comprises arable and pasture fields, with small scattered areas of broadleaved woodland and traditional orchards. Several small watercourses and waterbodies are also present.

1.3 Aims

1.3.1 The purpose of the survey and report was to:

- Identify any statutory[1] designated sites on or close to the site.
- Provide an ecological baseline for the site including habitats[2] and the presence of, and potential for, legally protected[3], notable[4], and invasive non-native species.
- Identify any potential impacts on designated sites, habitats, and species.
- Provide details of further required surveys and/or mitigation.
- Provide recommendations for biodiversity enhancements.

[1] Statutory designated sites are those protected by legislation and include Ramsar, Special Protection Areas (SPA), Special Areas of Conservation (SAC), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), and Local Nature Reserves (LNR).
[2] Including priority habitats listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
[3] Legally protected species include species afforded protection by the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended).
[4] Notable species include priority species listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, UK red data book species, and Birds of Conservation Concern (BoCC).

2 Legislation and Planning Policy

2.1 Legislation

2.1.1 Certain species and habitats are legally protected in the UK by legislation. The key pieces of legislation are:

- The Conservation of Habitats and Species Regulations 2017 (as amended).
- Wildlife and Countryside Act 1981 (as amended).
- Natural Environment and Rural Communities (NERC) Act 2006.
- Protection of Badgers Act 1992.
- Wild Mammals (Protection) Act 1996.
- The Hedgerows Regulations 1997.
- The Environment Act 2021.

2.1.2 The implications of legislation with regard to species are provided in Table 2-1.

2.1.3 Only a brief summary of wildlife legislation is provided here for general guidance and should not be considered a definitive statement of the law. For detailed information the legislation itself should be consulted.

The Conservation of Habitats and Species Regulations 2017 (as amended)

2.1.4 These Regulations transpose the EU Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. The Regulations require the designation and protection of European Sites (Special Areas of Conservation (SAC) and Special Protection Areas (SPA) and the protection of European Protected Species (EPS).

2.1.5 A EPS mitigation licence is required if works affect EPS (e.g. bats) or their places of rest or breeding sites. EPS licences are issued by Natural England only after the following three tests have been satisfied:

- The proposed works must be for the purpose of preserving public health or safety or other imperative reasons of overriding public interest.
- There is no satisfactory alternative to the proposed works.
- The proposed works will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

2.1.6 It will be necessary to determine whether any European Sites or EPS may be impacted, either directly or indirectly, by the proposed development.

Wildlife and Countryside Act 1981 (as amended)

2.1.7 This Act implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Directive) and the EU Directive 79/409/EEC on the conservation of wild birds (Birds Directive).

2.1.8 The Act provides protection to a range of animal and plant species. It also requires sites with special wildlife or geological interest to be designated nationally as Sites of Special Scientific Interest (SSSI).

2.1.9 It will be necessary to consider whether the proposed development would have any direct or indirect impacts on any SSSI or species listed in relevant schedules of the Act.

Natural Environment and Rural Communities (NERC) Act 2006

2.1.10 Section 40 of this Act places a duty on public authorities to 'have regard' to conserving biodiversity when determining planning applications. Section 41 of the Act requires the Secretary of State to publish a list of species and habitats of principal importance to biodiversity (priority species and habitats). The local planning authority must 'have regard' to conserving these species and habitats when determining a planning application. The development would need to mitigate for any impacts on priority habitats and species.

2.1.11 The proposed development would need to mitigate for any impacts on priority habitats and species.

Protection of Badgers Act 1992

2.1.12 This Act provides specific protection for badgers and their setts from harm and disturbance.

2.1.13 The proposed development would need to mitigate any impacts on badgers and setts.

Wild Mammals (Protection) Act 1996

2.1.14 This Act makes it an offence to intentionally inflict unnecessary suffering on a wild mammal through mutilation, kicking, beating, nails, impaling, stabbing, burning, stoning, crushing, drowning, dragging, or asphyxiation.

2.1.15 Care would have to be taken during the construction phase of the proposed development to ensure that unnecessary suffering is not inflicted.

The Hedgerows Regulations 1997

2.1.16 These Regulations protect most hedgerows from removal unless permissioned by a local planning authority. They also provide historic and ecological criteria for defining important hedgerows. A local planning authority can only refuse permission to remove a hedgerow under the Hedgerows Regulations 1997 if a hedgerow is assessed to be important.

2.1.17 The proposed development should aim to retain and protect hedgerows and mitigate for impacts.

The Environment Act 2021

2.1.18 This Act sets statutory targets in four priority areas: biodiversity, air quality, water, and waste, and includes a new target to reverse the decline in species abundance by the end of 2030. The Act also makes provisions for a mandatory 10% net gain in biodiversity for all developments covered by the Town and Country Planning Act 1990; this is expected to come into force in November 2023.

Table 2-1: Implications of legislation with regard to species

Legislation	Species	Legal Implications
The Conservation of Habitats and Species Regulations 2017 (as amended)	• Bats • Hazel dormouse • Otter • Great crested newt	It is illegal to: • Deliberately capture, injure or kill these species. • Deliberately disturb[1] these species. • Damage or destroy a breeding site or resting place used by these species.
Wildlife and Countryside Act 1981 (as amended) – sub-sections 9(4) b and c and 9(5) only	• Bats • Hazel dormouse • Otter • Great crested newt	It is illegal to: • Intentionally or recklessly disturb these species while they are occupying a structure or place of shelter or protection. • Intentionally or recklessly obstruct access to a structure or place of shelter or protection.
Wildlife and Countryside Act 1981 (as amended)	• Birds	It is illegal to intentionally: • Kill, injure or take any wild bird. • Take, damage or destroy a wild bird's nest while it is in use or being built. • Take or destroy the eggs of any wild bird. There is additional protection for birds listed on Schedule 1 (S1) of the Act, which includes barn owls.
Wildlife and Countryside Act 1981 (as amended)	• Water vole	It is illegal to: • Intentionally kill, take, or injure water voles. • Intentionally or recklessly damage or destroy a place of shelter or protection. • Intentionally or recklessly disturb water voles while they are occupying a structure or place of shelter or protection. • Intentionally or recklessly obstruct access to a structure or place of shelter or protection.
Wildlife and Countryside Act 1981 (as amended) – sub-sections 9(1) (partial) and 9(5) only	• Common reptile species	It is illegal to: • Intentionally or recklessly kill or injure common lizard, slow worm, grass snake, and adder.
NERC Act 2006	• Priority species	Local planning authorities must '*have regard*' to conserving priority species. Priority species include several bat and bird species, otter, hazel dormouse, water vole, hedgehog, brown hare, harvest mouse, polecat, common reptile species, great crested newt, and common toad.
Protection of Badgers Act 1992	• Badger	It is illegal to: • Wilfully capture, kill or injure a badger. • Damage, destroy or obstruct access to setts. • Disturb badgers in setts.

[1] Disturbance under the Conservation of Habitats and Species Regulations 2017 (as amended) is defined as impairing the ability of an animal to survive, breed, reproduce, rear or nurture their young, hibernate or migrate, or to significantly affect the local distribution or abundance of the species.

2.2 Planning Policy

National Planning Policy Framework (NPPF) 2021

2.2.1 Paragraph 174 states that planning decisions should protect sites of biodiversity value, minimise biodiversity impacts, and contribute to net biodiversity gains.

2.2.2 Paragraph 180 states that planning permission should be refused if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for.

2.2.3 The NPPF emphasises the need to consider biodiversity at a landscape scale, conserving, restoring and enhancing priority habitats and ecological networks, and protecting priority species. The NPPF also specifies the need to protect designated sites from adverse harm and to protect irreplaceable habitats (e.g. ancient woodland and veteran trees).

2.2.4 The proposed development would need to mitigate for impacts on biodiversity and provide net biodiversity gains where possible.

Local Planning Policy

2.2.5 The presence of EPS, including bats, is a material consideration in the planning process and local planning authorities will refuse planning permission where a EPS licence is unlikely to be granted and a criminal offence relating to an EPS is likely to result from a development.

2.2.6 The Wiltshire Council Core Strategy (2015) sets out policies for development and land use in Wiltshire. Two policies are relevant to ecology and biodiversity at this site; refer to Table 2-2 for details. Refer to the original document for full wording of these policies.

Table 2-2: Wiltshire Core Strategy policies with relevance to ecology and biodiversity

Policy	Details
Core Policy 50: Biodiversity and Geodiversity	**Protection:** Development proposals must demonstrate how they protect features of nature conservation. There is an expectation that such features shall be retained, buffered, and managed favourably in order to maintain their ecological value, connectivity and functionality in the long-term. Where it has been demonstrated that such features cannot be retained, removal or damage shall only be acceptable in circumstances where the anticipated ecological impacts have been mitigated as far as possible and appropriate compensatory measures can be secured to ensure no net loss of the local biodiversity resource, and secure the integrity of local ecological networks and provision of ecosystem services. All development proposals shall incorporate appropriate measures to avoid and reduce disturbance of sensitive wildlife species and habitats throughout the lifetime of the development. **Biodiversity enhancement:** All development should seek opportunities to enhance biodiversity. **Local Sites:** Sustainable development will avoid direct and indirect impacts upon local sites.
Core Policy 52: Green Infrastructure	Development shall make provision for the retention and enhancement of Wiltshire's green infrastructure network, and shall ensure that suitable links to the network are provided and maintained. Where development is permitted developers will be required to retain and enhance existing on site green infrastructure.

3 Methodology

3.1 Desk Study

3.1.1 A search was conducted for existing information on:

- Statutory designated sites within 1 km of the site.
- SSSI, SAC, SPA, and Ramsar sites Impact Risk Zones.
- Bat SAC Consultation Zones.
- Mapped priority habitats and ancient woodlands within 100 m of the site.
- Granted EPS mitigation licences within 1 km of the site.
- Great crested newts licence returns and pond survey results within 1 km of the site.
- Great Crested Newt Risk Zones
- Mapped waterbodies within 500 m of the site.

3.1.2 The following websites and document were consulted:

- Multi-Agency Geographic Information Centre (MAGIC)[1].
- Natural England Open Data Geoportal[2].
- Bat SAC Planning Guidance for Wiltshire (Wiltshire Council, 2015).

3.1.3 The search areas are considered sufficient to take into account ecological receptors which could potentially be impacted by the proposed development.

3.1.4 A data search was not obtained from the Local Records Centre as it was considered that this would not provide any significant additional information to inform the assessment.

3.2 Field Survey

Personnel

3.2.1 The field survey was carried out by Joseph Wilkie; see Table 3-1 for details of the surveyor's experience and qualifications.

Table 3-1: Surveyor information

Surveyor	Natural England Survey Licences	Qualifications/Experience
Joseph Wilkie BSc, Qualifying member of CIEEM	Bats Level 1 (2021-54618)	Four years' experience in ecological consultancy. BSc Environmental Resource Management (University of Plymouth – 1st).

[1] https://magic.defra.gov.uk/MagicMap.aspx (accessed May 2023).
[2] https://naturalengland-defra.opendata.arcgis.com (accessed May 2023).

Survey Weather Conditions

3.2.2 The survey was undertaken on the 18th of May 2023. See Table 3-2 for details of weather conditions during the survey.

Table 3-2: Survey weather conditions

Variable	Weather Conditions
Cloud cover	50 %
Temperature	17°C
Wind	Light air (BWS 1)
Precipitation	None

Extended Phase 1 Survey

3.2.3 A Phase 1 habitat survey was undertaken following the methodology outlined in the 'Handbook for Phase 1 Habitat Survey' (JNCC, 2010). This involved a walkover of the site to map habitats present against Phase 1 categories. As an extension to the Phase 1 habitat survey, any priority habitats within the site were identified and habitats assessed for evidence of, and potential to support, legally protected, notable and invasive non-native species. Any evidence of, and potential for, such species was recorded. Target Notes (TN) were made for any evidence of, or features with particular suitability for legally protected, notable and invasive non-native species; these are provided in Appendix 2 and plotted on the Phase 1 Habitat Map (Figure 2, Section 10).

3.2.4 Specifically, the site was surveyed for evidence of, and potential for, the species/groups detailed in Table 3-3:

Table 3-3: Typical habitat requirements and field signs for surveyed species/groups

Species/ Group	Typical Habitat Requirements	Field Signs
Bats	Roost in buildings, trees, other structures, and underground sites. Foraging and commuting habitat include watercourses, waterbodies, hedgerows, tree-lines, scrub, woodland, pasture, and meadows.	Direct sighting, carcasses, droppings, urine, grease marks, feeding remains, squeaking.
Birds	Woodland, trees, scrub, hedgerows, moorland, heathland, wetlands, cavities within buildings, waterbodies, grassland.	Direct sightings, nests, droppings, feathers, eggs.
Badger	Woodland, dense scrub, hedgerows, moorland, grassland, field edges.	Direct sightings, setts, hair, footprints, dung, latrine pits, paths.
Hazel dormouse	Deciduous and mixed woodland (especially coppice managed with a successional stage of vegetation). Also hedgerows, conifer plantations, and dense scrub.	Direct sighting, nests, gnawed nuts.

Species/ Group	Typical Habitat Requirements	Field Signs
Otter	Holts in tree cavities, roots, rabbit burrows and bank-side rocks. Rivers, wetland, wet ditches, drains, ponds, lakes, coastal and marshland.	Direct sightings, anal jelly, spraint (dung), footprints, paths/tracks through vegetation, feeding remains, slides into and out of the water, couches (above ground resting places), holt entrances (below ground shelters).
Water vole	Vegetated banks on slow moving watercourses, reed beds, ponds, lakes, marshland, upland.	Direct sightings, latrines, droppings, feeding stations, burrows, feeding remains, lawns, nests, footprints.
Brown hare	Open farmland, grassland, woodland edges. Favours a mosaic of arable (cereal crops), grassland (with long areas for shelter) and hedgerows. Hare forms (resting places) may be in a grass tussock or behind a rock to give some protection. Hayfields provide better habitat than silage grassland as leverets are vulnerable to earlier cutting.	Direct sightings, footprints, droppings, forms, paths (tracks),
Hedgehog	Grassland, heathland, moorland, farmland, woodland, gardens	Direct sightings, footprints, droppings.
Polecat	Woodland, riverbank, marsh and farmland with hedgerows and small woods. Generalist species with wide ranges. Feed on rabbits, small rodents, birds, insects, frogs when gathered to spawn in the spring. Dens often in rabbit burrows in summer and move to farmyards (hay bales, under sheds, rubbish tips) in winter.	Direct sightings, footprints, droppings.
Harvest mouse	Long tussocky grassland, cereals, roadside verges, reedbeds, hedgerows, farmland and around woodland edges. Feed on seeds, berries, insects, cereal grains, also moss, roots and fungi. Nests found in dense vegetation (grasses, rushes, cereals, grassy hedgerows, ditches and brambles).	Direct sighting, nests.
Amphibians	Waterbodies for breeding. Terrestrial habitat includes most semi-natural environments including rough grassland, marsh, scrub, woodland, hedgerows, brownfield and low-intensity farmland. Tree stumps, mammal burrows, stone piles, log piles, compost heaps for shelter and hibernation.	Direct sightings, eggs attached to vegetation in waterbodies.

Species/ Group	Typical Habitat Requirements	Field Signs
Reptiles	Mosaic of habitats with potential for shelter and basking including rough grassland, scattered scrub, hedgerows, heathland, moorland, woodland glades, wetland, gardens and brownfield. Tree stumps, mammal burrows, stone piles, log piles, compost heaps for shelter and hibernation.	Direct sightings, sloughed skin.
Invertebrates	Diverse range of habitats including mature trees, deadwood, flower-rich grassland, tussocky grassland, waterbodies, wetlands, scrub, hedgerows and brownfield sites.	Direct sightings.
Fish	Running and standing water.	Direct sightings.
Plants	Waterbodies, woodland, grassland, hedgerow bases.	Direct sightings.
Invasive non-native species	All habitats.	Direct sightings.

3.2.5 An assessment was made of the likelihood that the protected, notable, and invasive non-native species/groups detailed in Table 3-3 occur on or close to the site with reference to the criteria provided in Table 3-4.

Table 3-4: Criteria for the assessment for the presence of species/groups

Likelihood of Occurrence	Assessment Criteria
Confirmed	Field signs and/or records confirm the presence of species/group.
High	Presence of species concerned not confirmed by field signs or records, but high quality suitable habitat present on site and connected to further suitable habitat AND/OR field signs present indicative of presence of species but presence not definitely proven. Site within known geographic distribution for the species/group.
Moderate	Presence of species concerned not confirmed by field signs or records, but moderate quality suitable habitat present on the site and some connectivity to further moderate or high quality suitable habitat in the wider landscape. Site within known geographic distribution for the species/group.
Low	Presence of species concerned not confirmed by field signs or records. Low quality suitable habitat on the site AND/OR poor connectivity to further suitable habitat in the local landscape. However, possible presence of the species/group cannot be completely discounted. Site within known geographic distribution for the species/group.
Negligible	No field signs and/or records of species. No suitable habitat present on or close to the site. Site not within known geographic distribution for the species/group.

3.2.6 The Extended Phase 1 Habitat survey included a great crested newt Habitat Suitability Index (HSI) assessments of the on-site waterbody, as follows:

Habitat Suitability Index (HSI)

3.2.7 The on-site waterbody was surveyed and assessed for its potential to support great crested newts using the HSI (Oldham et al., 2000).

3.2.8 The HSI is calculated using measures of ten environmental factors known to impact great crested newts. It is a numerical index between 0 to 1, where 0 indicates unsuitable (poor) habitat and 1 indicates optimum (excellent) habitat. HSI categories are provided in Table 3-5.

Table 3-5: HSI categories

HSI Score	Category
<0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

3.3 Evaluation of Ecological Features

3.3.1 A valuation of ecological features (designated sites, species, and habitats) was undertaken in accordance with CIEEM guidance (CIEEM, 2022). Valuation is determined using the geographic framework provided in Table 3-6.

3.3.2 The value of an ecological feature is based on a professional ecologist's judgement and takes into consideration various characteristics including any site designations, species records, priority species and habitats, species rarity, the quality of the resources (e.g. habitat diversity, species population size), and location within the landscape context.

3.3.3 Sometimes it is not possible to provide a valuation of ecological features in the absence of data, which would have to be provided by further ecological surveys. Important ecological features, which may pose a constraint to the proposed development, are those with an ecological value which could be impacted by the development. These are the features which may require further survey work and mitigation.

Table 3-6: Framework for assessing the value of ecological features

Geographic Scale	Example of Ecological Feature
International **(most important)**	An internationally designated site e.g. Special Areas of Conservation (SAC), Special Protection Area (SPA), Ramsar sites. Regularly occurring populations of internationally important species.
National	Site of national importance e.g. Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR). Regularly occurring populations of nationally important species.

Geographic Scale	Example of Ecological Feature
Regional	Non-statutory site e.g. Local Wildlife Site (LWS), Key Wildlife Site (KWS), Country Wildlife Site (CWS) supporting a regionally significant area of priority habitat or regionally significant population of legally protected/priority species.
County	Non-statutory site e.g. Local Wildlife Site (LWS), Key Wildlife Site (KWS), Country Wildlife Site (CWS), ancient woodland, site supporting priority habitats, priority species, and/or legally protected species of significance for the county.
Local	Habitats which enhance the local habitat resource e.g. old species-rich hedgerow, deciduous woodland, pond, small areas of priority habitat or areas supporting small populations of legally protected/priority species which are not rare within the region, county, or nationally.
Site	Habitats of limited ecological importance e.g. scattered trees, hedgerows, woodland plantations, small areas of non-priority habitats that are of value for wildlife. Species of limited ecological importance.
Negligible **(least important)**	Hardstanding, bare ground, built environment, and other areas with negligible biodiversity value, including for priority and legally protected species.

3.4 Limitations

3.4.1 No access was obtained to conduct HSI surveys of ponds located within 500 m of the site. This is not considered to be a significant limitation as impacts on great crested newts can be avoided by the implementation of Reasonable Avoidance Measures (RAMs) during works.

4 Baseline Ecological Conditions

4.1 Desk Study

Statutory Designated Sites

4.1.1 No statutory designated sites are located within 1 km of the site.

SSSI, SAC, SPA, and Ramsar Sites Impact Risk Zones

4.1.2 The proposed works do not qualify.

Bat SAC Consultation Zone

4.1.3 The site is not located within a Bat SAC Consultation Zone.

Mapped Priority Habitats and Ancient Woodlands

4.1.4 There are no priority habitats or ancient woodland records within 100 m of the site.

Granted EPS Mitigation Licences

4.1.5 There are no records of granted EPS mitigation licences within 1 km of the site.

Great Crested Newt Licence Returns and Pond Survey Results

4.1.6 There is one record of a great crested newt pond survey within 1 km of the site; see Table 4-1 for details.

Table 4-1: Great crested newt records within 1 km

Approximate Distance from Site (m)	Survey Date	Description	Record Type
495	27/04/2018	Negative (+/- 1 km)	Pond survey

Great Crested Newt Risk Zones

4.1.7 The site is located within an amber risk zone for great crested newts. Areas within amber risk zones have been assessed to provide suitable habitat for great crested newt habitat, and great crested newts are considered likely to be present.

Waterbodies

4.1.8 Seven waterbodies were mapped within 500 m of the site. Refer to Table 4-2 for the distances of these waterbodies from the site, and to Figure 3, Section 10 for a map showing the location of these waterbodies.

Table 4-2: Waterbodies within 500 m

Waterbody	Approximate Distance from Site (m)
1	On-site
2	202
3	220
4	343
5	370
6	392
7	469

4.2 Field Survey – Habitats

4.2.1 The location and extent of habitats on the site are shown on the Phase 1 habitat map; see Figure 2, Section 10.

Hedgerows

4.2.2 The location of hedgerows on the site, which are referenced as Hedgerows H1 – H4 in this report, are shown on the Phase 1 Habitat Map.

4.2.3 The hedgerows are classified as hedgerow priority habitat as they contained more than 80% coverage of at least one native woody species.

Hedgerow H1 – Native Species-rich Hedgerow with Trees



Western boundary



North-western boundary

4.2.4 An intact, shrubby, species-rich hedgerow with trees formed the western and part of the northern site boundary. The hedgerow did not appear to be heavily managed, with only the eastern side showing signs of trimming in the lower part, with an average height approximately 4 m. Tree species present included field maple, hawthorn, blackthorn, wych elm, hazel, plum and walnut. Woody species in the shrub layer included holly, elder, rose sp., wild privet, bramble, hawthorn and blackthorn. Ground flora present included cow parsley, cleavers, lords-and-ladies, ivy, common nettle, false oat grass, jack-by-the-hedge, dog's mercury and hedge mustard.

Hedgerow H2 - Defunct Species-poor Hedgerow



4.2.5 Short (approximately 2 m in length) sections of hawthorn hedgerow separated by gaps of several metres were present along the eastern part of the northern site boundary. The hedgerow was backed by a dry ditch, with an intact, managed hedgerow behind.

Hedgerow H3 - Native Species-rich Hedgerow with Trees



4.2.6 An intact, species-rich hedgerow with trees formed the northern part of the eastern site boundary. The hedgerow did not appear to be heavily managed with signs of light trimming only. The average height was approximately 4 m. Tree species present included birch, wych elm, elder, ash, field maple, walnut, pedunculate oak, and hazel. Shrub species included blackthorn, hawthorn, holly and dogwood, with bramble and ivy also present in the shrub layer. Ground flora species present included cow parsley, cleavers, lords-and-ladies, common nettle, germander speedwell, ground ivy, and false oat-grass.

Hedgerow H4 – Intact Species-poor Hedgerow



4.2.7 An intact hawthorn hedgerow with some ivy and bramble formed the southern part of the eastern site boundary. Ground flora present included cow parsley, cleavers, lords-and-ladies, ground ivy and common nettle. The hedgerow was managed and approximately 1.5 m high and 2 m wide.

Improved Grassland



4.2.8 The majority of the site comprised long-sward, improved grassland. The field had previously been grazed by cattle but was ungrazed at the time of survey. Grass species present included meadow foxtail, soft brome, creeping bent, red fescue, perennial rye-grass, and Yorkshire fog. A low abundance of forb species was present, which included common chickweed, meadow buttercup, creeping buttercup, dandelion agg., red clover, common field-speedwell, vetch sp. and common sorrel.

Standing Water



4.2.9 An area of marshy grassland (predominantly floating sweet-grass) with small patches of shallow standing water was present in the north-western corner of the site.

4.3 Field Survey – Species

4.3.1 Table 4-3 provides details of an assessment of the suitability of habitats on and close to the site for protected, notable, and invasive non-native species/groups, details of any evidence of these species/groups, and an assessment of the likelihood that these species/groups occur on or close to the site.

Table 4-3: Site suitability for protected and notable species/groups and invasive non-native species

Species/ Group	Habitat Assessment	Evidence	Likelihood of Presence/Occurrence
Bats (foraging and commuting)	Hedgerows provided suitable foraging and commuting habitat through the site and to habitats in the local landscape. Cattle grazed improved grassland provided suitable foraging habitat.	N/A	**HIGH** Bats are highly likely to forage on and commute through the site.
Bats (roosting)	Trees within hedgerows on and close to the site could potentially contain roosts.	None	**UNKNOWN** Suitable foraging and commuting habitats were present on the site and in the local landscape, which indicates a higher likelihood that roosts may be present in trees on and close to the site if roost features are present.
Birds	Suitable foraging habitat was present on the site, providing potential habitat for a variety of species. Hedgerows, trees within hedgerows, and long sward grassland provided suitable nesting habitat.	None	**HIGH** Suitable foraging and nesting habitat on the site, and further suitable habitat in the vicinity of the site.
Badger	Suitable foraging and dispersal habitat present on the site.	[redacted]	[redacted]

Species/ Group	Habitat Assessment	Evidence	Likelihood of Presence/Occurrence
Hazel dormouse	Although the on-site hedgerows provided suitable habitat they did not connect to sufficiently extensive woodland habitat in the local landscape, with at least 20 ha of suitable habitat considered to be the minimum required to support dormouse populations (Bright et al, 2006).	None	**NEGLIGIBLE** Suitable habitat present on site but no connectively to sufficiently extensive woodland. Therefore it is considered that there is a negligible likelihood that hazel dormice occur on the site.
Otter	The ditch adjacent to the northern site boundary did not have non-culverted connectivity to further watercourses in the local landscape and was dry at the time of the survey.	None	**NEGLIGIBLE** No non-culverted connectivity between ditch and watercourses in the local landscape, and the ditch is at least periodically dry. Therefore it is considered that there is a negligible likelihood that otters occur on the site.
Water vole	Ditches on and close to the site were dry at the time of the survey.	None	**NEGLIGIBLE** No non-culverted connectivity between ditch and watercourses in the local landscape, and the ditch is at least periodically dry. Therefore it is considered that there is a negligible likelihood that water voles occur on the site.
Other mammals	Suitable habitat on the site for hedgehogs, polecat, brown hare and harvest mouse.	None	**MODERATE**

Species/ Group	Habitat Assessment	Evidence	Likelihood of Presence/Occurrence
Amphibians	On-site mapped waterbody assessed to have below average suitability for great crested newts (see Appendix 3 for details of the HSI survey). Six other mapped waterbodies identified within 500 m of the site. Long sward grassland and the base of hedgerows provided suitable foraging and dispersal habitat and potential for refuge and brumation. It is understood from the client that the grassland is periodically cut and grazed with livestock.	None	**MODERATE** The site is located within an amber risk zone for great crested newts. Areas within amber risk zones have been assessed to provide suitable habitat for great crested newt habitat, and great crested newts are considered likely to be present. Additionally, there is one positive record of a great crested newt pond survey within 1 km of the site Suitable foraging, refuge and dispersal habitat was present on the site, with further suitable habitat present in the vicinity of the site.
Reptiles	Long sward grassland and the base of hedgerows provided highly suitable foraging and dispersal habitat and potential for refuge and brumation. It is understood from the client that the grassland is periodically cut and grazed with livestock.	None	**LOW** Suitable foraging, refuge and dispersal habitat was present on the site, with further suitable habitat present in the vicinity of the site.
Invertebrates	Improved grassland provided low value habitat for invertebrates. The hedgerows with trees (including standing deadwood) could support a range of invertebrate species.	None	**MODERATE** The hedgerows provided suitable habitat for a range of species. The species-poor improved grassland likely to be of lesser value for invertebrates.
Fish	No suitable habitat on or close to the site.	None	**NEGLIGIBLE**
Plants	Habitats on the site are common and ubiquitous and are considered unlikely to support protected or notable species.	None	**LOW** Suitable habitat for common and widespread species.
Invasive non-native species	N/A	None	**NEGLIGIBLE**

5 Ecological Constraints

5.1 Development Proposals

5.1.1 It is proposed to install a caravan on a geotextile membrane in the north of the site and create an unpaved, pedestrian access track through the western side of the improved grassland field. This would result in the loss of a maximum of approximately 250 m^2 of improved grassland. Turf would be excavated and removed in the area where the geotextile membrane would be installed.

5.2 Great Crested Newt Rapid Risk Assessment

5.2.1 As the on-site mapped waterbody (Waterbody 1) was assessed to have below-average suitability for great crested newts it is considered unlikely that great crested newts would occur in this habitat.

5.2.2 A Natural England Rapid Risk Assessment (RRA) was undertaken (see Figure 5-1) for Waterbodies 2 to 7. This RRA assumes that great crested newts are present within these waterbodies and that 250 m^2 of suitable terrestrial habitat is cleared to permit the proposed development. It is also assumed that precautionary methods of working would be implemented during site clearance and works to avoid impacts on individual great crested newts. This RRA indicates that it is highly unlikely that the proposed development would result in an offence being committed with respect to great crested newts, if present in these waterbodies.

Component	Likely effect	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100 m of any breeding pond(s)	No effect	0
Land 100 - 250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.01
Land >250 m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001
Individual great crested newts	No effect	0
	Maximum:	0.01
Rapid Risk Assessment result:	**GREEN: OFFENCE HIGHLY UNLIKELY**	

Figure 5-1: Rapid Risk Assessment for Waterbodies 2 - 7 (Natural England, 2015)

5.3 Evaluation of Potential Impacts

5.3.1 Statutory designated sites, protected and ecologically valuable habitats, and protected and notable species may pose a constraint if there is potential for them to be impacted by a proposed development. Invasive non-native species may also pose a constraint to development, and provide opportunities to enhance the biodiversity value of a site by their removal or control.

5.3.2 Table 5-1 provides a valuation of features on and close to the site which could be impacted by the proposed development, justification for the valuation, and details of potential impacts upon these features in the absence of mitigation. Only species which were present or assessed to have potential to be present on or close to the site are included in the valuation. Features highlighted in blue have the potential to pose a constraint to the proposed development of the site and would require further surveys and/or mitigation (see Section 6).

Table 5-1: Valuation and potential impacts on ecological features

Ecological Feature	Value	Justification for Value	Anticipated/Potential Impacts Without Mitigation
Statutory designated sites	International/ National	Sites of international and/or national importance.	No significant effects on statutory designated sites are anticipated due to their distance from the site (more than 1 km) and the scale and type of proposed development.
Mapped priority habitats (off-site)	County	Habitats of importance at the county level.	No impacts are anticipated on mapped off-site priority habitats due to their distance from the site and the scale and type of proposed development.
Hedgerows	Site	Priority habitat which provided biodiversity value to the site and ecological connectivity through the local landscape. Suitable habitat for a range of protected and notable species, including bird and bat species.	No impacts are anticipated.
Improved grassland	Site	Widespread and common habitat of low intrinsic biodiversity value. Further extensive areas of improved grassland are present in the local landscape.	It is considered that the proposed removal of improved grassland would not have a significant biodiversity impact. However, see potential impacts on species.
Standing water	Site	Suitable habitat for common amphibians. Below average potential for great crested newt.	No impacts are anticipated.
Bats (roosting)	Unknown	Trees within boundary hedgerows could have suitability for roosting bats.	No impacts are anticipated.
Bats (foraging/ commuting)	Unknown	Hedgerows provided suitable foraging and commuting habitat. Long sward grassland and standing water is also likely to be of value to foraging bats.	Artificial illumination of hedgerows could disturb foraging and commuting bats.

Ecological Feature	Value	Justification for Value	Anticipated/Potential Impacts Without Mitigation
Birds	Site	The hedgerows and long sward grassland provided suitable foraging and nesting habitat.	If long-sward grassland is removed/cut during the nesting season (which is typically March to August inclusive) then there is potential for the killing/injury of birds and destruction of active nests.
Badger	Site	[redacted]	
Other mammals	Site	Suitable habitat on the site for hedgehog, brown hare, polecat and harvest mouse.	Loss of a small area of suitable habitat is considered unlikely to have a significant impact on local mammal populations. Further and more extensive suitable habitat in the local landscape.
Amphibians	Site	Small area of suitable habitat on the site for foraging, dispersal and brumation.	Loss of a small area of suitable habitat is considered unlikely to have a significant impact on local amphibian populations. No impacts on mapped Waterbody 1. Further and more extensive suitable habitat in the local landscape.
			Injury, death, or disturbance during site clearance/ preparation and works.

Ecological Feature	Value	Justification for Value	Anticipated/Potential Impacts Without Mitigation
Reptiles	Site	Small area of suitable terrestrial habitat on the site for foraging, dispersal and brumation.	Loss of small area of suitable habitat is considered unlikely to have a significant impact on local reptile populations. Further and more extensive suitable habitat in the local landscape.
			Injury/death during site clearance/preparation and works.
Invertebrates	Site	Suitable habitat on the site, likely to be used by common and widespread species.	No significant impacts are anticipated due to the removal of a small area of improved grassland. Further and more extensive suitable habitat in the local landscape.

6 Surveys, Mitigation and Enhancements

6.1 Surveys

6.1.1 No further surveys are considered necessary provided that the mitigation detailed in Section 6.2 is implemented.

6.2 Mitigation

Bats

6.2.1 Avoid artificial light spill onto hedgerows. It is recommended that external artificial lights are not installed. If external lighting is essential then it is recommended that it is kept to a minimum and warm-white (long wavelength, not UV) LED lights are used, and motion sensors on short-duration timers and high motion threshold fitted (e.g. so that moths do not set them off).

Birds

6.2.2 Long sward grassland must either be cut/removed outside of the nesting season (which is generally March until the end of August), or it must be checked for active nests by an ecologist no more than 48 hours before cutting/removal commences; if active nests were then found then these would have to be left undisturbed until the young had fledged.

Badger

6.2.3 A walkover of the site to check [redacted] must be carried out by a suitably qualified ecologist no more than 48 hours before turf excavation begins. Works can then only proceed once the ecologist has confirmed that badger setts would not be impacted by the works.

6.2.4 RAMS must be implemented during the excavation of turf, as follows:

[redacted]

Amphibians & Reptiles

6.2.5 Implement RAMs during site clearance and construction to minimise the risk of injury or death. Suitable RAMs are provided in Appendix 4.

6.3 Biodiversity Enhancements

6.3.1 It is proposed to provide native tree and shrub planting in the vicinity of the proposed caravan (see Appendix 1).

6.3.2 In line with the NPPF and local planning policy, details of additional opportunities to permit biodiversity enhancements are provided in Table 6-1.

Table 6-1: Opportunities for biodiversity enhancements

Opportunity	Details
Provision of bird nest boxes	One or more nest boxes could be mounted on trees (e.g. 1B Schwegler bird box, Vivara Pro Seville 32mm WoodStone nest box, 2GR Schwegler nest box). Nest boxes must be installed at least 3 m above ground level, and ideally face between the north and east to avoid direct sunlight and prevailing wind and rain. Birds must have a clear flight path to and from the boxes.
Provision of bat boxes	One or more bat boxes could be installed on trees (e.g. Low Profile WoodStone bat box, 1FF Schwegler bat box, Vivara Pro WoodStone bat box). Bat boxes must be installed at least 3 m above ground level, ideally facing to the south, south-west and/or south-east, located away from windows and other artificial light sources, and with a clear flight path to and from the entrance.
Provision of hedgehog nest boxes	One or more hedgehog nest boxes could be installed in sheltered areas to provide permanent nesting opportunities for hedgehogs.
Provision of invertebrate habitat	One or more invertebrate hotels could be installed within hedgerows and/or log piles could be left in undisturbed areas to provide additional habitat for invertebrates.
Native shrub and tree planting	New native tree and shrub planting could be carried out on site.

7 Conclusions

7.1.1 It is proposed to install a caravan on a geotextile membrane in the north of the site and create an unpaved, pedestrian access track through the western side of the improved grassland field. This would result in the loss of a maximum of approximately 250 m^2 of improved grassland. Turf would be excavated and removed in the area where the geotextile membrane would be installed.

7.1.2 The proposed development would not impact any statutory designated sites or ecologically important or protected habitats. No significant impacts on protected or notable species are considered likely if the mitigation measures provided in this report are implemented.

7.1.3 A summary of potential impacts which could arise from the proposed development and details of required further surveys and mitigation are provided in Table 7-1.

Table 7-1: Summary of potential impacts and required further surveys and mitigation

Ecological Feature	**Potential Impacts without Mitigation** (refer to Section 5)	**Required Surveys/Mitigation** (refer to Sections 6.1 & 6.2)
Bats	Artificial illumination of hedgerows could disturb foraging and commuting bats.	Avoid installing external lighting. Mitigate for impacts if external lighting is essential.
Birds	If long-sward grassland is removed during the nesting season (which is typically March to August inclusive) then there is potential for the killing/injury of birds and destruction of active nests.	The long-sward grassland must either be cut outside of the nesting season, or it must be checked for active nests by an ecologist no more than 48 hours before cutting; if active nests were then found to be present then these would have to be left undisturbed until the young had fledged.
Badger	[redacted]	A check of the site for newly created setts/entrance holes must be carried out by a suitably qualified ecologist shortly before the commencement of works. Implement Reasonable Avoidance Measures (RAMs) during site clearance/preparation and works to avoid disturbance, injury or death.
Amphibians & reptiles	Injury, death, or disturbance during site clearance/preparation and works.	Implement Reasonable Avoidance Measures (RAMs) during site clearance/preparation and works to avoid injury, death, or disturbance.

8 Local Records Centre Submission

A list of species recorded on the site during the survey is provided in Table 8-1. These records will be sent to the Local Records Centre.

Site Name	Lanes End Farm, Gastard, Corsham, Wiltshire, SN13 9QS	**Survey by**	Joseph Wilkie
Grid Reference	ST 8864 6857	**Position**	Ecologist
Provided By	Smart Ecology Ltd.	**Survey Date**	18/05/2023

Table 8-1: LRC Submission

Common Name	Scientific Name	Comment
Badger	*Meles meles*	[redacted]

9 References

Bright, P., Morris, P. and Mitchell-Jones, T. (2006). *The dormouse conservation handbook Second edition.* English Nature, Peterborough.

British Standards Institute (BSI) (2013). *BS4202 Biodiversity – A code of practice for planning and development.* BSI, London.

CIEEM (2016). *UK Guidelines for Accessing and Using Biodiversity Data.* Chartered Institute of Ecology and Environmental Management, Winchester.

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Wiltshire Council (2015). *Bat Special Areas of Conservation (SAC) - Planning Guidance for Wiltshire.* Wiltshire Council, Trowbridge.

10 Figures

Figure 1 – Site Location Map

Figure 2 – Phase 1 Habitat Map

Figure 3 – Waterbody Location Map

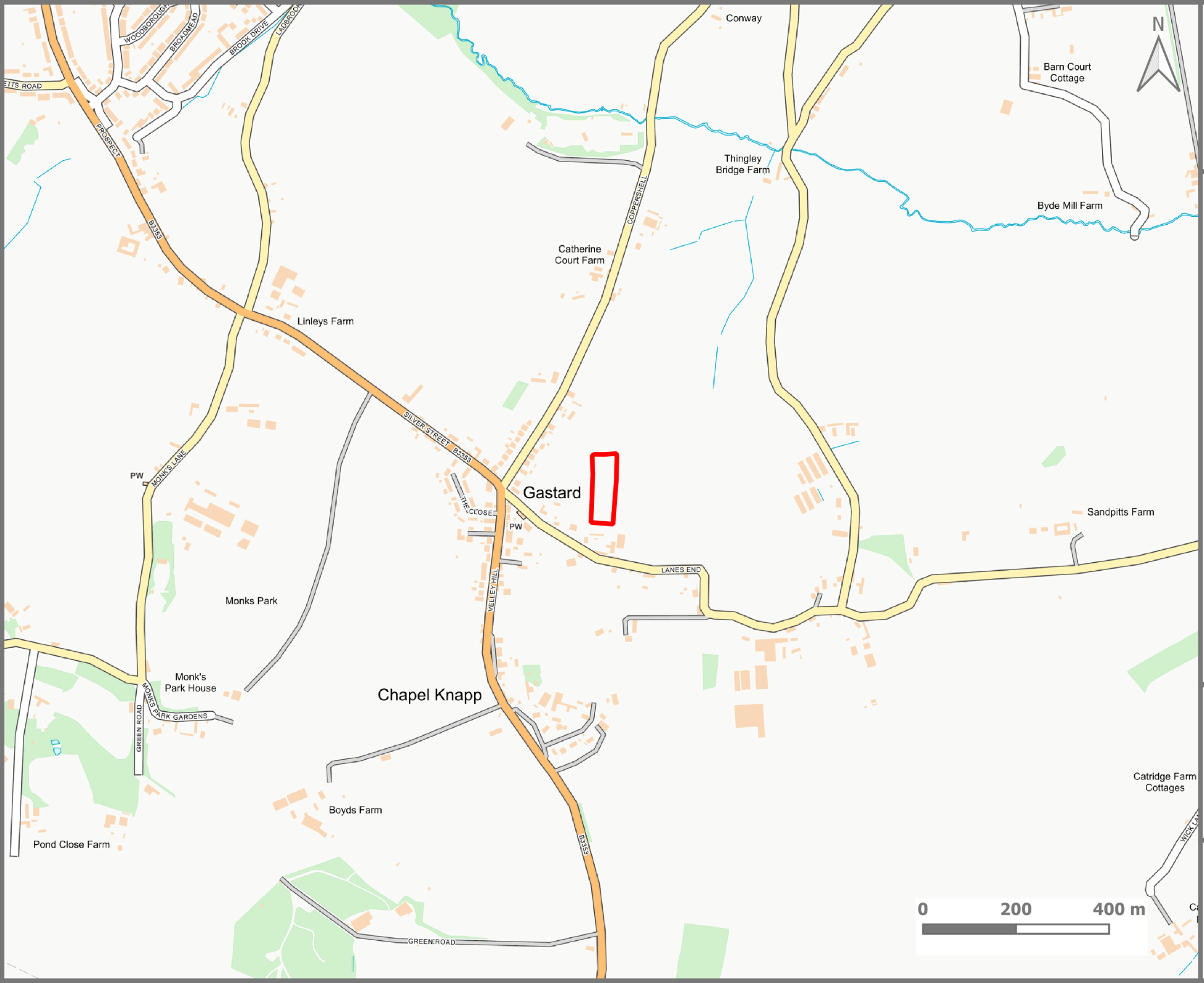

Figure 1 - Site Location Map

Lanes End Farm,
Gastard,
Corsham,
Wiltshire,
SN13 9QS

Site Boundary

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Date:	25/05/2023
Drawn by:	Joseph Wilkie
Checked by:	Rachel Barber

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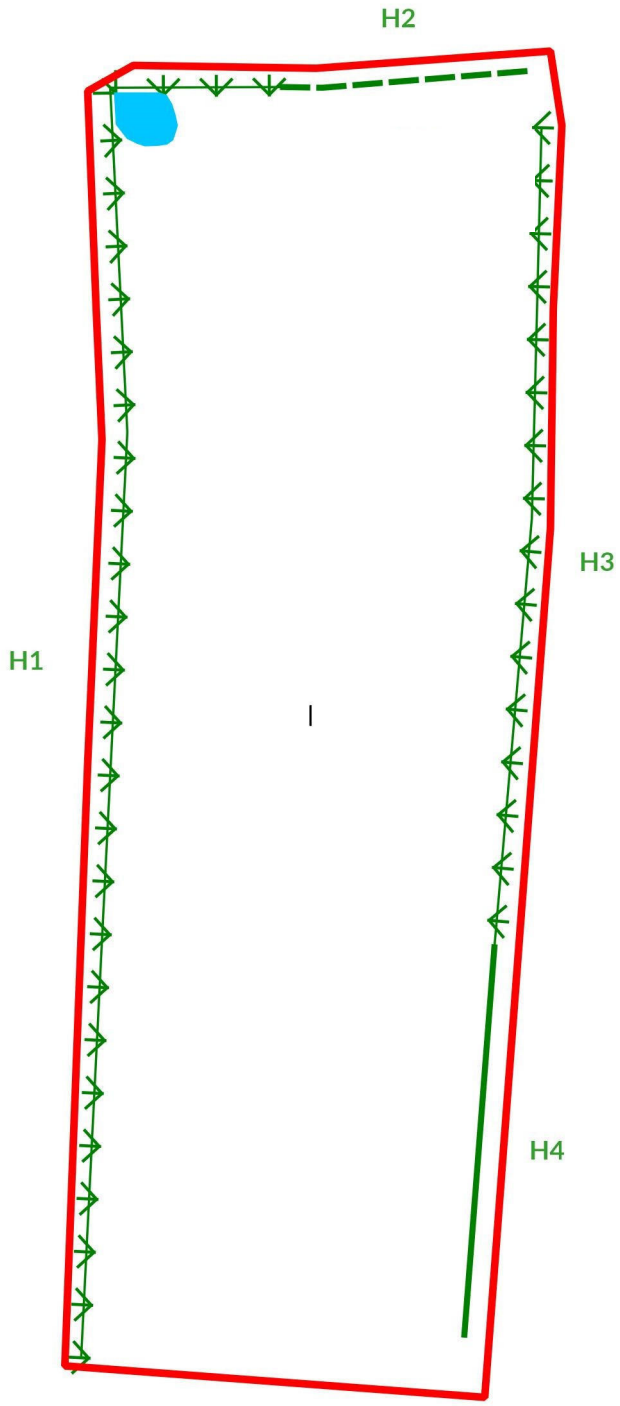

Figure 2 - Phase 1 Habitat Map

Lanes End Farm,
Gastard,
Corsham,
Wiltshire,
SN13 9QS

Hedgerows

- Defunct Species-poor Hedgerow
- Intact Species-poor Hedgerow
- Native Species-rich Hedgerow with Trees

Improved Grassland

Standing Water

Site Boundary

Not to scale. Indicitive positions shown.

Date:	25/05/2023
Drawn by:	Joseph Wilkie
Checked by:	Rachel Barber

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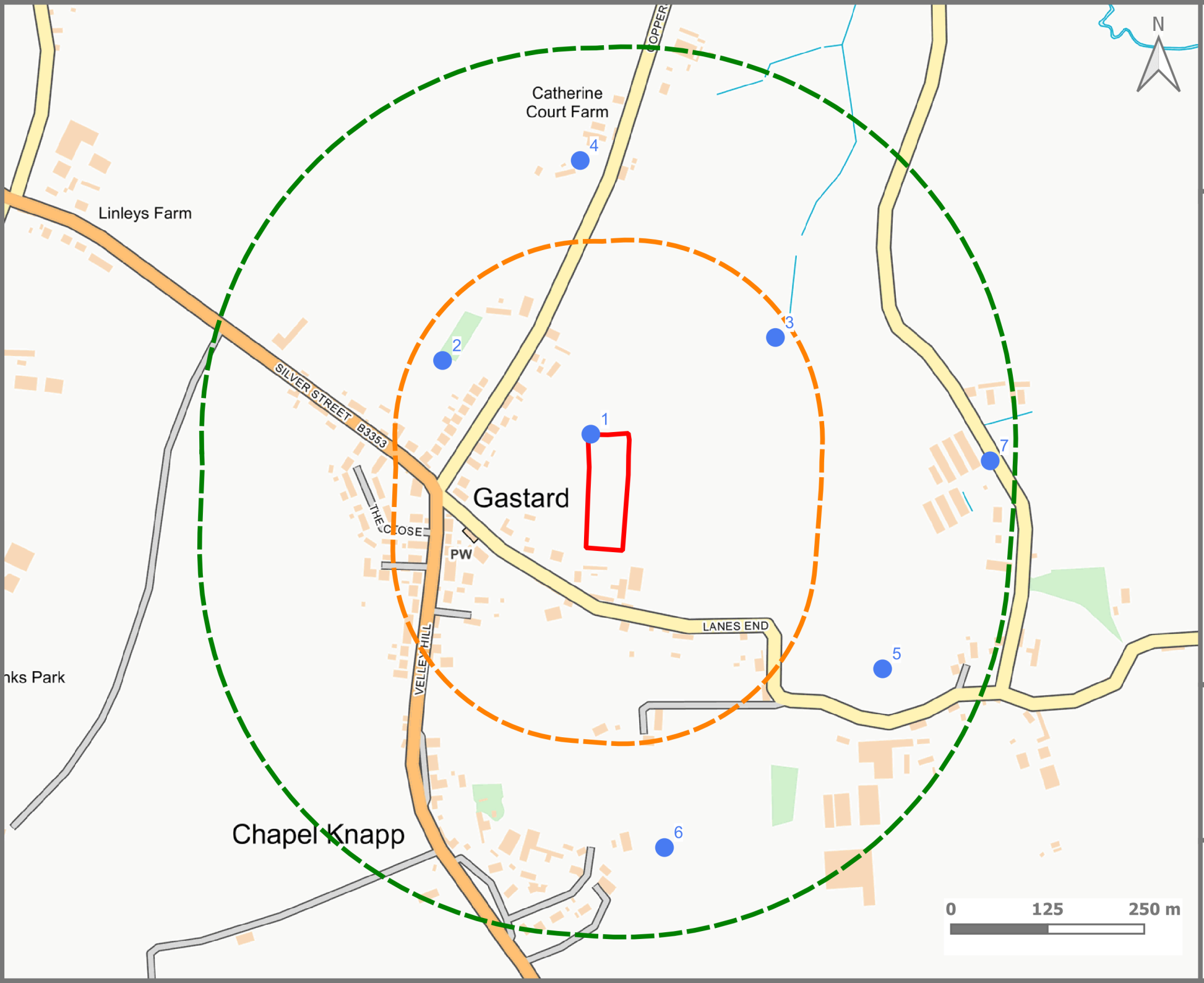

Figure 3 - Waterbody Location Map

Lanes End Farm,
Gastard,
Corsham,
Wiltshire,
SN13 9QS

250 m Buffer
500 m Buffer
Waterbodies
Site Boundary

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Date:	25/05/2023
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Checked by:	Rachel Barber

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Appendix 1 – Proposed Site Plan

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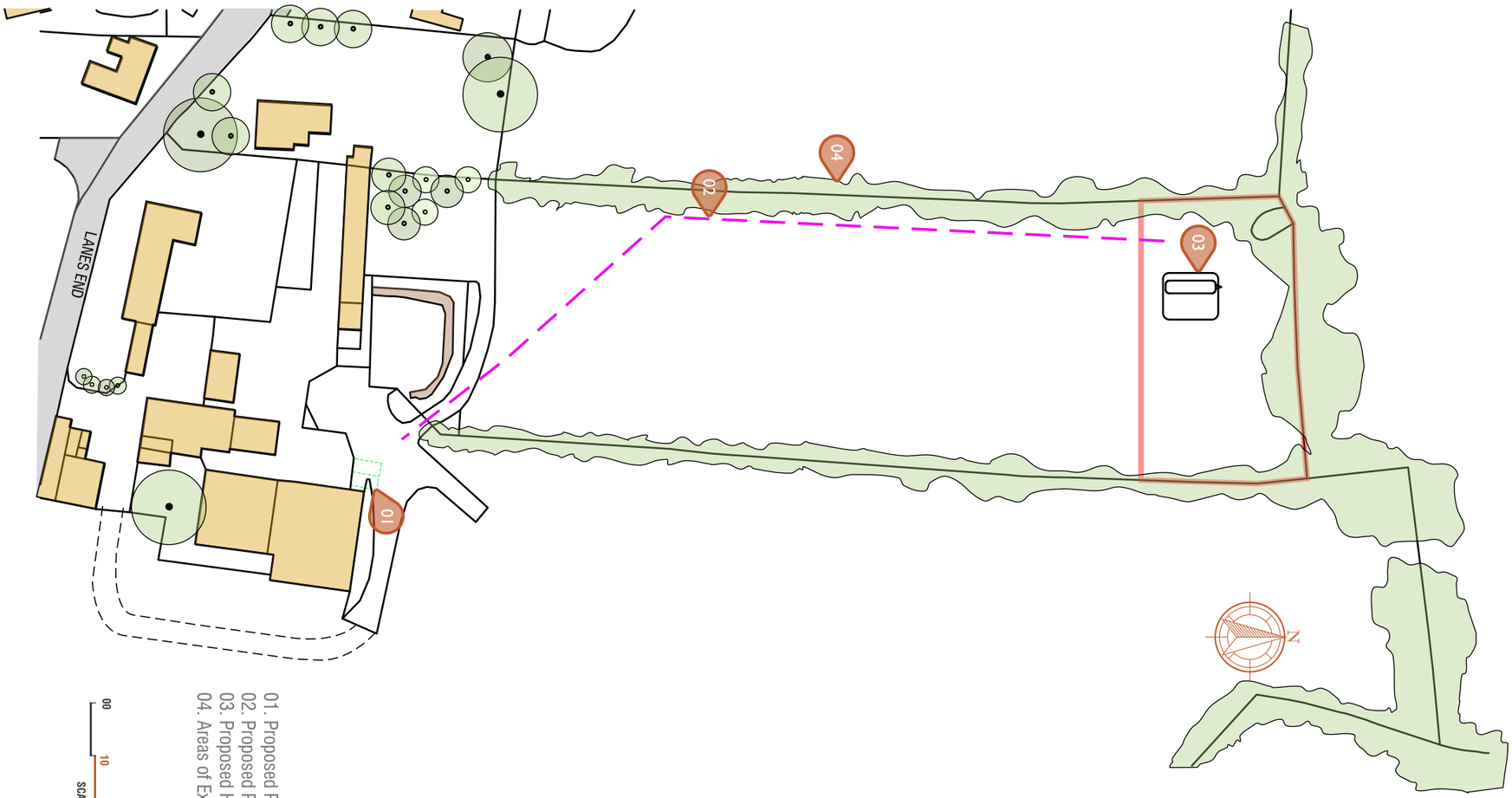

01. Proposed Parking Area
02. Proposed Pedestrian Route to Holiday Unit
03. Proposed Holiday Unit Location
04. Areas of Existing Mature Planting

SCALE 1:1000 (00, 10, 20, 30, 40)

SCALE 1:500 (00, 05, 10, 15, 20)
SCALE 1:200 (00, 02, 04, 06, 08)
SCALE 1:100 (00, 01, 02, 03, 04)
SCALE 1:50 (00, 0.5, 01, 1.5, 02)

REVISION	DRAWING No.	PROJECT NO.	DESCRIPTION	DATE	
B	SK.04	LDC.2424	Proposed Site Plan	April. 2023	The Studio, 82 Broadmead, Corsham, SN13 9AP

PROJECT
Lanes End Farm
Gastard,Corsham, SN13 9QS

SCALE:
1:1000 @ A3

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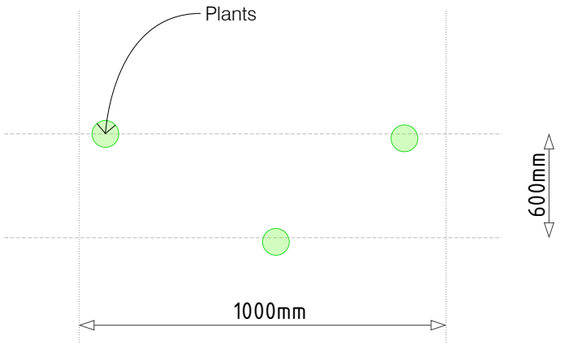
LDPC Land, Development & Planning Consultants Ltd

All planting should be carried out in accordance with BS4428:1989, Code of practice for general landscape operations (excluding hard surfaces).
Trees to be planted between November and March. Plant to a minimum depth of 400mm and width of 600mm, ensuring that the root collar of the plant is level with the surface of the ground when completed. All plants should be well heeled in after planting and watered in during dry weather. If supplied as bare root specimens, ensure that the roots do not dry out by keeping them under a moist cloth or in a bucket of water during planting. Avoid planting in very cold or wet weather.
All new planting shall be carried out in first available season following completion of the development, any plants which within a period of 5 years, die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of a similar size and species, unless otherwise agreed in writing by the local planning authority.
Protect the plants from damage by wild animals and stock with the use of spiral tree guards or rabbit netting to be removed after 3 – 5 years when the plants are well established.
In first year after planting spot weed with non-selective herbicide in mid-May, mid-July and August.
In subsequent two years treat with Propyzamide herbicide granules during October – January period.

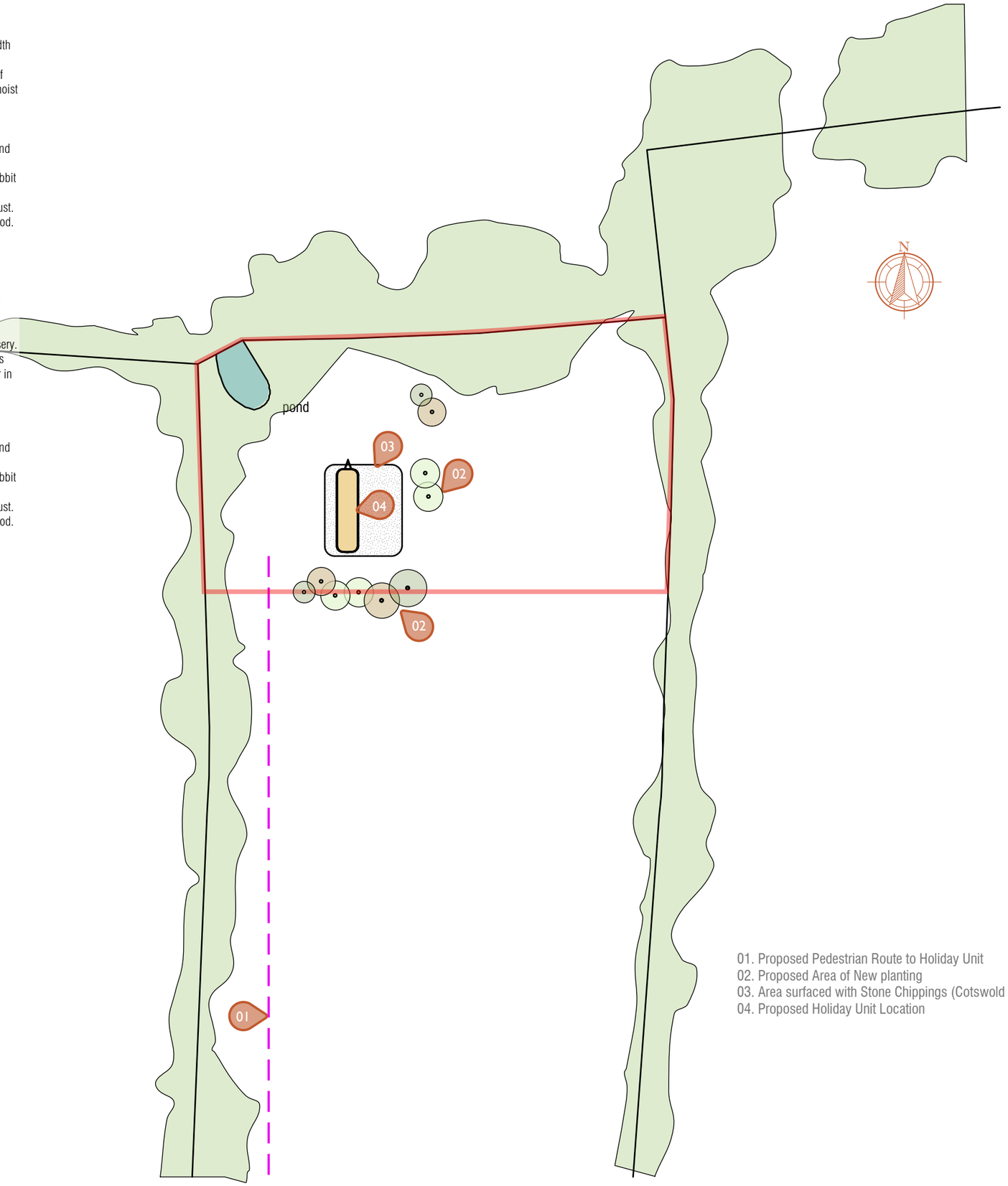
All planting should be carried out in accordance with BS4428:1989, Code of practice for general landscape operations (excluding hard surfaces).
Planting trenches should be dug to a minimum depth of 400mm and width of 600mm,with the plants put into the ground at the same depth at which they had been previously grown in the nursery.
All plants should be well heeled in after planting and watered in during dry weather. If supplied as bare root specimens, ensure that the roots do not dry out by keeping them under a moist cloth or in a bucket of water during planting. Avoid planting in very cold or wet weather. All planting done between November and March.
All new planting shall be carried out in first available season following completion of the development, any plants which within a period of 5 years, die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of a similar size and species, unless otherwise agreed in writing by the local planning authority.
Protect the plants from damage by wild animals and stock with the use of spiral tree guards or rabbit netting to be removed after 3 – 5 years when the plants are well established.
In first year after planting spot weed with non-selective herbicide in mid-May, mid-July and August.
In subsequent two years treat with Propyzamide herbicide granules during October – January period.

Tree Planting to be random mix of Field Maple, Beech, Bird Cherry & Dog Rose.
all plants to be 0.75 - 1.0m 3L pots.

Hedging to be planted in two, staggered rows at a density of not less than 3 per meter, with approximately 600mm between plants in the same row, and 300-400mm between rows.



Planting detail (not to scale)



01. Proposed Pedestrian Route to Holiday Unit
02. Proposed Area of New planting
03. Area surfaced with Stone Chippings (Cotswold chippings or similar)
04. Proposed Holiday Unit Location

SCALE 1:50 0 0.5 1 1.5 2
SCALE 1:100 0 0 1 2 3 4
SCALE 1:200 0 0 2 4 6 8
SCALE 1:500 0 0 5 10 15 20

All dimensions to be checked on site. Drawing for planning purposes only - Not for construction. Reproduction of this drawing is prohibited without the consent in writing of Land Development & Planning Consultants Ltd. Site plans are reproduced from the Ordnance Survey sheets with the permission of The Controller of HM Stationery Office. Crown Copyright Reserved. Licence Number AL566755.

Land, Development & Planning Consultants Ltd
LD PC
The Studio,
82 Broadmead,
Corsham,
SN13 9AP

DATE
April. 2023

DESCRIPTION
Proposed Site Plan
SCALE:
1:250 @ A3

PROJECT NO.
LDC.2424
PROJECT
Lanes End Farm
Gastard,Corsham, SN13 9QS

DRAWING No.
SK.05

REVISION
A

Appendix 2 – Target Notes

Number	Description	Photographs
TN1	[redacted]	

Appendix 3 – HSI Data

Waterbody	1	**Survey by**	Robert Dunn
Grid Reference	ST 8861 6861	**Survey date**	18/05/2023

HSI Factor	Assessment	HSI Value	Rationale
Location	Zone A	1.00	-
Area (m^2)	Approximately 48	0.10	-
Pond drying	Frequently	0.10	Almost dry at the time of the survey.
Water quality	Moderate	0.67	Very low water level in isolated patches. Precautionary value of moderate given.
Shade (%)	50	1.00	-
Waterfowl	Absent	1.00	No signs of waterfowl.
Fish	Absent	1.00	None noted.
Pond density	>10 ponds/π = > 3.18	1.00	All known and mapped ponds within 1 km counted.
Terrestrial habitat	Moderate	0.67	Good quality habitats within 250 m of the pond offer opportunities for foraging and shelter but are not extensive (25-75%) of available area.
Macrophyte cover (%)	50	0.81	Predominantly reed sweet-grass.
HSI Score		**0.57**	**Below average**
Photograph			

Appendix 4 – Reasonable Avoidance Measures

To minimise the risk of injury or death to amphibians and reptiles during vegetation/turf removal and works the following Reasonable Avoidance Measures (RAMs) must be followed. A suitably qualified ecologist must supervise site clearance works.

Site Induction

Before clearance works begin, an ecologist must meet contractors and provide a site induction. This talk will provide information on great crested newts and other amphibians and reptiles, including their legal protection, identification, where they could be found on the site, what to do if amphibians or reptiles are found during works, and an explanation of these RAMs and the importance of adhering to them.

Identification guides for great crested newts are provided at the end of these RAMs and must be printed out and displayed for all contractors to see.

Site Clearance

Vegetation clearance must be supervised by a suitably qualified ecologist.

The ecologist must undertake a fingertip search of all areas of grassland which are to be cleared immediately before works commence.

Any amphibians (other than great crested newts) and reptiles found during site clearance and works must be carefully moved outside of the works area using gloved hands or a suitable container.

If a great crested newt is found at any time during works, then work must stop immediately and the ecologist will provide further advice. If an ecologist is not present then an ecologist must be immediately contacted. A guide to newt identification is provided at the end of these RAMs.

Timing

Clearance of long sward grassland must be undertaken during the amphibian and reptile active season (i.e. April to September inclusive) and in suitable weather (i.e. temperature between 9°C and 18°C, calm, and no precipitation) to ensure that animals are active and can readily move away from work areas. All works must take place only during daylight hours.

Clearance of long sward grassland must either be carried out outside of the bird nesting season (which is generally March to August inclusive), or an ecologist must confirm that active bird nests are absent prior to removal.

Table A4-1: Clearance timings (blue shading shows when tasks must be carried out)

Task	J	F	M	A	M	J	J	A	S	O	N	D
Clearance of long sward grassland				Must be checked for bird nests prior to removal between March and August.								

Vegetation Cut

Clearance of long-sward grassland must be undertaken using the following phased approach. Vegetation must be strimmed or brush cut and all cuttings raked and removed from the clearance area on the same day.

- Day 1 – cut vegetation to a height of 150 mm.
- Day 2 – cut vegetation to a height of 75 mm.
- Day 3 – cut vegetation to a height of 30 mm.

After the vegetation has been cut it must be kept short to deter animals from re-entering the area.

Construction

During construction, any building material (e.g. geotextile membrane) must be stored on pallets or hardstanding to deter amphibians and reptiles from sheltering underneath. All waste must be stored in skips or containers and not in piles on the ground.

All excavations must be covered overnight, or a ramp installed with an angle no steeper than 40 degrees, to enable animals to escape.

Newt Identification Guide (source: Amphibian and Reptile Conservation Trust)

Smooth newt

Grows to about 10 cm. Both sexes have orange or yellow belly stripe, with rounded black spots. Male has undulating crest running from head to tail tip.







A widespread species which breeds in a variety of water bodies. Often found in garden ponds.

After the 'tadpole' stage, young newts live on land. Most likely to be found from late summer to autumn as they disperse from ponds.

Palmate newt

Grows to 9 cm. Breeding male has ridge running along back, rather than a crest. Dark, webbed hind feet, and tail ends in filament.







There are two pale coloured nodules on the underside of the hind feet of female palmate newts.



Female looks similar to smooth newt.





Palmate Smooth

Throat of palmate newt has no pigment (looks pink). Throat of smooth newt is off-white and usually spotted.

Great crested newt

Grows to 16 cm, but usually smaller. Crest in male has break at base of tail. Silvery-white stripe towards rear of tail conspicuous.

Both sexes have rough, granular skins and yellow/ orange bellies with irregular black spots.





Juveniles look like smaller versions of the female and may live on land or in the water.

Strictly protected species, requiring a licence to handle or disturb.