



Ostara Ecological Services

Ecological Appraisal

Executive Summary

Ostara Ecological Services were commissioned by [REDACTED] to undertake an Ecological Appraisal of Satis Green Lane, Wokingham, RG40 2HT. This comprised an online desk study, Phase 1 Habitat Survey, and an ecological scoping survey which assessed the potential of the site to support species of conservation concern or other species which could present a constraint to the development of the site.

The proposed development has the potential to support a number of protected and notable species including:

- ★ No significant impacts upon designated sites are anticipated as none were identified within 2km of the site boundary.
- ★ The site consisted of a residential dwelling surrounded by hardstanding, amenity lawn, and ornamental garden plants. The site was bounded by ornamental trees, hedges and garden fencing.
- ★ No bats or evidence of bats were found in the building and it was considered to have negligible suitability for roosting bats.
- ★ Although the site is considered suboptimal for great crested newts *Triturus cristatus* (GCN) they are known in the wider area. In the opinion of the surveyor, the risk to GCN from the proposal is low and can be further reduced through implementation of a Precautionary Method Statement under the direction of a suitably qualified and licensed great crested newt ecologist.



Introduction

Site name

Satis Green

Purpose of report

To undertake an initial assessment of the potential ecological impact of the proposals, an online desk study, Phase 1 Habitat Survey and protected species assessment were carried out. This is termed as a Preliminary Ecological Appraisal Report (PEAR) in accordance with CIEEM (2017). However, to complete an EclA of the proposals, the above is undertaken and no further surveys are required. This report is a stand-alone EclA which has been prepared following current guidance (CIEEM, 2018) and can be used to lawfully determine a planning application in line with current planning policy¹. This report does not form part of a wider discipline Environmental Impact Assessment (EIA) or Environmental Statement (ES), nor does it confer the need for any such documentation.

Aim(s)

- ★ Undertake a desk-based review of designated sites and records of protected species and other species that could present a constraint;
- ★ Map and assess the habitats present on site;
- ★ Assess the site for potential to support protected species or other species that could present a constraint, and make appropriate recommendations for further survey work if necessary;
- ★ Baseline of survey data to analyse;
- ★ Provide outline options for mitigation measures as appropriate; and
- ★ Make recommendations for appropriate biodiversity enhancements in line with national and local planning policy.

Proposals

Proposed side extension and a detached garage.

Location

Satis Green Lane, Wokingham, RG40 2HT. Ordnance Grid Reference: SU 81988 67941.

¹ Office of the Deputy Prime Minister Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within The Planning System



Introduction

Map



Zone of Influence

The term Zone of Influence is used to describe the geographic extent of potential impacts of a proposed development. The Zone of Influence is determined by the nature of the development and also in relation to designated sites, habitats or species which might be affected by the proposals. For this site the Zone of Influence is considered to be the site boundary only due to the urban context of the area.

Methodology

Desk Study

The ecological records obtained as part of this assessment within a 1 km radius of the site were analysed, together with updated using online records and previous reports for the site. The analysis of data requests were limited to records for protected species recorded within the last ten years and sites of nature conservation interest within 1 km of the site. This included a review of existing statutory sites of nature conservation interest, such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Area of Conservation (SACs) and National Nature Reserves (NNRs), and non-statutory sites, such as Sites of Importance for



Methodology

Phase 1 Habitat Survey

Nature Conservation (SINCs) and Local Wildlife Sites (LWSs). Locations of statutory designated sites were accessed via the government 'MAGIC' website (MagicMap, 2023). A 1:25,000 OS map was used to identify nearby features such as green corridors that could provide habitat or connectivity to other areas.

The Phase 1 Habitat surveys followed the standard methodology (JNCC, 2010), and as described in the Guidelines for Preliminary Ecological Assessment (CIEEM, 2017). In summary, this comprised walking over the survey area and recording the habitat types and boundary features present.

Protected Species Assessment

A protected species scoping survey was carried out in conjunction with the Phase 1 Habitat survey. The site was assessed for its suitability to support protected species, in particular bats, birds, GCN, otters, reptiles, [REDACTED] and other species of conservation importance that could pose a planning constraint.

Daytime Bat Assessment

The buildings and trees present on the site which may be affected by the proposed works were visually inspected and potentially suitable entry / exit points for bats such as holes and crevices were noted together with any evidence of bat presence such as droppings or feeding remains.

Following standard best practice methodology (Collins, 2016), each building and tree, which is to be affected by works, was classified either as confirmed roost, high, medium, low or negligible potential, which informs the need for and survey effort of any nocturnal surveys required.

Impact Assessment

The ecological impact assessment is based on the standard best practice methodology provided by the Guidelines for Ecological impact Assessment (CIEEM, 2018). The assessment identifies important sites, habitats, species and other ecological features that are of conservation value based on factors such as legal protection, statutory or local site designations such as SSSI or Local Wildlife Site (LWS) or inclusion on Red Data Book Lists or Local Biodiversity Action Plans. The importance of an ecological feature is considered within a defined geographical context. The following frame of reference is used, or adapted to suit local circumstances:

- ★ International and European
- ★ National (England)
- ★ Regional (South of England)
- ★ County (Borough of Wokingham)
- ★ District (Wokingham)
- ★ Local (Wokingham)
- ★ Below Local Level: Site Level Only.



Methodology

Consideration of impacts at all scales is important, and essential if objectives for no net loss of biodiversity and maintenance of healthy ecosystems are to be achieved. In identifying impacts, the review considers the Client's Site proposals and any subsequent recommendations made are proportionate / appropriate to the site and have considered the Mitigation Hierarchy as identified below:

- ★ Avoid: Provide advice on how the development may proceed by avoiding impacts to any species or sites by either consideration of site design or identification of an alternative option.
- ★ Mitigate: Where avoidance cannot be implemented mitigation proposals are put forward to minimise impacts to species or sites as a result of the proposals. Mitigation put forward is proportionate to the site.
- ★ Compensate: Where avoidance cannot be achieved any mitigation strategy will consider the requirements for site compensatory measures.
- ★ Enhance: The assessment refers to planning policy guidance (e.g. NPPF) to relate the ecological value of the site and identify appropriate and proportionate ecological enhancement in line with both national and local policy.

Effects are considered significant at the range of scales from international to local. A significant effect is an effect that is sufficiently important to require assessment and reporting so that the ecological consequences of the project are understood. In broad terms, significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution).

The surveys and assessments have been overseen, led and verified by full members of CIEEM who are bound by its code of professional conduct. All surveys and assessments have been undertaken with reference to the recommendations given in British Standard BS 42020, and as stated within specialist guidance, as appropriate, and are referenced separately. On site surveys have been undertaken by:

Surveyor

Ceridwyn Adkins BSc (Hons) MCIEEM who has been an ecologist for 14 years, and who also holds Natural England Licences for bats and great crested newts (Level 2).

Thomas Rickman BSc (Hons) MSC MCIEEM who has been an ecologist for nine years, and who also holds Natural England licences for bats, barn owls, dormice and great crested newts.

Due to the sensitive nature of the licence numbers, these can be supplied separately and should not be available in the public domain.

Survey Date

21st June 2023

Weather

0/8cc, 22 degrees Celsius, still



Limitations

Desk Study Records

The absence of desk study records is not relied upon to determine the absence of a particular species. Often, the absence of records is a result of under-recording within the given search area and as such the experience of the ecologist concerned together with a range of additional factors, such as the presence or absence of potential supporting habitat, is used to infer likely presence or absence.

Survey

Ecological surveys are limited by factors that affect the presence of plants and animals such as time of year, weather, migration patterns and behaviour. The surveys were undertaken in May and therefore represent a valid sample of ecological evidence present during that season. The report is not designed, nor is it required to present a complete inventory of flora and fauna or NVC surveys.

The loft area was partially vaulted, therefore, some parts were not able to be inspected. It is considered that there was sufficient access during the survey to provide an understanding of the site and any potential implications this may have on the proposal.

Valid

The results and recommendations within this report are valid for up to three years from the date of survey, assuming there are no significant changes to the Site or its immediate surroundings.

Desk Study Results- 1km

Statutory Protected Sites

★ None present

Granted Licences

★ GCN were noted SU820679 2014-2017 -no further information is provided on magic map



Field Survey Results

Confirmed Presence CP Potentially Present PP Unlikely Presence UP No Possibility NP	Code	Consider Further	Risk to Project (H/M/L/N) ²	Reason/Notes (e.g. field signs present or desk study revealed presence in area and/or suitable habitat present)
Biological Important Hedgerow	NP	N	N	None present.
S41 (only) Habitats ³	NP	N	N	None present.
Trees on, or within 15m of site	NP	N	N	There were ornamental trees and hedgerows bounding the site, these will not be impacted by the development.
Protected Plants (WCA Sch.8 ⁴ , CHSR Sch.5 ⁵)	NP	N	N	None present.
Invasive Plants ⁶	NP	N	N	None present.
Phase 1 habitats		N	N	The site consisted of a residential dwelling (UKHabs code u1b5) surrounded by hardstanding (u1b), amenity lawn, and ornamental garden plants (u1).
Great Crested Newts	UP	N	N	Although known to be in the wider area, the habitat on the site was considered to be sub-optimal for GCN. There were no ponds within 250 m of the site, the nearest pond was 450 m to the southwest.

²: **High**: Further surveys required prior to the commencement of works / **Medium**: Precautionary measures and/or further surveys may be required, particularly if the recommended avoidance or mitigation measures cannot be implemented / **Low**: A low risk to the project. No further surveys are deemed to be required unless the scope of works differ to those anticipated and described above / **Negligible**: Negligible foreseeable risk to the project.

³ Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006 published a list of habitats and species of principal importance for biodiversity conservation in England (succeeded the UK Biodiversity Action Plan (BAP).

⁴ Wildlife & Countryside Act 1981 (as amended)

⁵ Conservation of Habitats and Species (Amendment) Regulations 2019

⁶ Wildlife & Countryside Act 1981 (as amended) Schedule .9, Injurious weeds (Weeds Act 1959)



Field Survey Results

Confirmed Presence Potentially Present Unlikely Presence No Possibility	CP PP UP NP	Code	Consider Further	Risk to Project (H/M/L/N) ²	Reason/Notes (e.g. field signs present or desk study revealed presence in area and/or suitable habitat present)
Bat Building	NP	N	N	N	The building had no bats or evidence of bats in the loft and the building was tightly sealed. It was considered to have negligible suitability for roosting bats. Due to the very small size of the site and suitable habitat in the wider area (field to the south), the site was considered to be of negligible value for commuting or foraging bats.
Reptiles	NP	N	N	N	The site was considered to be of negligible suitability for reptiles. It is therefore considered that reptiles are likely to be absent from this site and they are not considered further within this report.
Riparian species	NP	N	N	N	No suitable habitat is present on site. It is therefore considered that riparian species are likely to be absent from this site and they are not considered further within this report.
Nesting Birds	PP	Y	N	N	No active nests were found in the building, birds could potentially nest in the hedges and trees bounding the site.
Other Species	NP	N	N	N	No suitable habitat present on site. It is therefore considered that other species are likely to be absent from this site and they are not considered further within this report.



Discussion & Recommendations

Desk Study

No impacts to designated sites are anticipated due to the urban context of the site, development proposed and none present within the distance of the proposed development from such sites (where known).

Phase 1 Habitat Survey

The majority of habitats on site were generally of limited botanical interest and poor species diversity. The value of habitats such as the urban trees were largely noted in their potential to support nesting birds rather than for their botanical value. No protected or priority plant species were observed and all plant species encountered were common, widespread and characteristic of the common habitat types they represent.

Daytime Bat Assessment

A "Bat Building Assessment " was undertaken of the building on site. Building on site was assessed as having "Negligible" potential for bats. None of the trees on site were considered to have negligible potential to support roosting bats. The site did not provide suitable foraging and commuting resources for bats due to the lighting surrounding the site. In assessing the site against criteria in best practice guidelines (Collins J., eds, 2016) the site was considered to offer negligible quality foraging and commuting habitat for bats. On this basis, a development would be of negligible risk to bat species foraging and commuting. Given the small size of the site and limited areas of vegetation present, it is considered disproportionate to undertake bat activity surveys to assess the use of the vegetation on site by bats.

As lighting already exists on site, a lighting strategy is not required. However, any additional lighting, if installed, should aim to reduce light spill via the use of low-level lighting used in conjunction with hoods, cowls, louvres and shields. Lights will also be directional to ensure that light is directed to the intended areas only.

External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on. Wall lights and security lights will be 'dimable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.

Nesting Birds

The urban trees within the site provide suitable habitat for nesting birds. However, the site was considered unsuitable to support Schedule 1 bird species, owing to the lack of evidence found on site. Therefore, bird assemblages are likely to be common and widespread species with limited conservation value.

Any tree management works or vegetation/ building clearance should take place outside the bird nesting season (March to August inclusive) to ensure compliance with the general protection afforded to wild birds under the Wildlife and Countryside Act 1981 (as amended). Pigeons are known to nest all year round, therefore it is recommended a nesting bird check 24-48 hrs prior to any works is checked, by a suitably qualified ecologist. Where active nests are found, working restrictions would be put in place until a follow up survey can demonstrate that all chicks have fledged.



Discussion & Recommendations

Due to the low quality and small areas of habitat present alongside proposals to retain these features, further bird surveys are deemed disproportionate.

One pond was noted 450m south west of the site. A maximum routine migratory range of 250 m from breeding ponds has been estimated for GCN during terrestrial phases, and more recent studies suggest that 95% of newt summer refuges are within 63m of breeding ponds.

With regard to approaches to mitigation requirements for Great Crested Newts English Nature guidance states that *'at distances greater than 100m, there should be careful consideration as to whether attempts to capture newts are necessary...[and] At distances greater than 200-250m, capture operations will hardly ever be appropriate'* (Cresswell and Whitworth, 2004).

GCN

Although the site is considered suboptimal for GCN, in the opinion of the surveyor, the risk to GCN from the proposal is low and can be further reduced through implementation of a Precautionary Method Statement under the direction of a suitably qualified and licensed GCN ecologist. The proposed works footprint and habitats present is considered disproportionate to undertake further surveys.

Natural England states that *'licensable activities should ideally be designed out of developments...with careful planning of the development combined with simple precautionary measures'*. Given the small scale of this development, impacts should be able to be avoided in this manner thus negating the need for a licence.

GCN Precautionary Method of Works

Works should aim to take place in either:

- ★ March to June are good periods for reducing risk of encountering amphibians as they are more likely to be in ponds; or
- ★ September through December; this timing is sensible considering that the project would not harm hibernation habitat.
- ★ The project is of short-term in nature, and the duration of groundworks will be kept as short as possible.
- ★ Works will be undertaken during daylight hours only (except for internal works once chalets are in place) as GCN are most active at night.

Timing

Pre-construction

- ★ The vegetation/grassland within the development area should be maintained at a height of 10-15 cm or below through regular mowing, and kept short prior to and throughout



GCN Precautionary Method of Works

the development period by strimming. This will discourage wildlife from entering this area of the site and to discourage amphibians taking refuge within the development site.

- ★ All workers should be made aware via a 'Toolbox Talk' (TBT) (conducted by a suitably qualified ecologist at the onset of works) of this Precautionary Method Statement, protected species that could be found onsite, their protected status (see Separate TBT), where they might be found, methods to follow and that they should maintain a watch for GCN.
- ★ Site staff must be made aware that if great crested newts are found onsite there is a correct procedure in place to follow, and failure to halt works may result in committing an offence under the Habitats Regulations 2010.
- ★ Any rubble piles will be dismantled by hand and debris and brash will be stored on pallets or removed from the site to prevent amphibians from utilising these areas.

- ★ If it is suspected that a GCN has been found, work must be suspended and the advice of a suitably licensed GCN ecologist sought. Contact details are supplied in the TBT. A Natural England development licence may be required before works can continue. This may entail considerable delays and costs.
- ★ Should the project over run significantly (by more than 1-2 years) then further advice must be sought to determine whether additional surveys or licensing are required before work continues.
- ★ At no point should any worker handle a GCN or suspected GCN. Unlicensed handling is illegal and untrained handling may cause unnecessary stress and injury.

- ★ Works will be restricted to the designated development area and the impact of works on adjacent habitats avoided by the clear demarcation of the works area.
- ★ All proposed work must strictly be in accordance with all relevant Pollution Prevention Guidelines (PPG) published by the Environment Agency which may include but is not limited to PPG1 (general), PPG5 (works in, near, or liable to affect watercourses) and PPG6 (work at construction & demolition sites). Contingency plans should be drawn up to address chemical spillage, collision, etc.
- ★ Access will be via the existing driveway and over agreed routes only with no exceptions.
- ★ Trenches and other excavations should be backfilled before nightfall. If this is not possible, ramps must be left to allow all wildlife to easily exit.
- ★ Avoid burning or machine removal of any potential hibernacula (wood piles, debris etc.) without a thorough hand search for amphibians, and hedgehogs.

If a newt is found

During Construction



GCN Precautionary Method of Works

- ★ All debris, rubble etc. collected during site clearance should be placed directly into skips or removed from the site immediately to avoid it becoming used as refugia by amphibians.
- ★ All new building materials should be stored on pallets or in bags to prevent them becoming used by terrestrial newts. Keep the site tidy.
- ★ Any work that will result in temporary habitat disruption and reinstatement, such as laying services needs ecological supervision.
- ★ Impact of vehicles/machinery on the ground must be minimised by undertaking work from hardstanding or agreed areas only.

Ecological Enhancements

The National Planning Policy Framework and local development plan requires ecological enhancement of sites subject to development proposals to the extent that they provide a net biodiversity gain.

The following habitat creation and enhancement opportunities could be incorporated into the proposed development:

- ★ native ornamental planting; and
- ★ increase the amenity grassland sward with incorporation of wildflowers;

Native planting

Amenity grassland planting is proposed, where feasible, species mix such as WFG20 Eco Species Rich Lawn⁷ or, a suitable alternative could be used to increase the low botanical value of the area to a richer grassland.

Where shrub planting is proposed, planting shrubs that have nectar-rich flowers that are good for insects in spring, and berries in autumn that attract birds, e.g. *Berberis spp*, hawthorn *Crataegus monogyna* and spindle *Euonymus europaeus* are welcomed additions.

During construction and maintenance of the landscaped areas, good horticultural practice will be utilised, including the use of peat-free composts, mulches and soil conditioners. The Proposed Development will use native plants (with local provenance where practicable), and avoid the use of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Any tree guards, if required, should be biodegradable.

⁷ <https://germinalamenity.com/wfg20-eco-species-rich-lawn>



References

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 - ★ Biggs, J., Ewald, N., Valentini, A., Gaboriaud, C., Dejean, T., Griffiths, R., Foster, J., Wilkinson, J., Arnell, A., Brotherton, P., Williams, P. and Dunn, F. (2014). Using eDNA to Develop a National Citizen Science-based Monitoring Programme for the Great Crested Newt (*Triturus cristatus*). Biological Conservation. 183. 10.1016/j.biocon.2014.11.029.
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 - ★ HMSO: Countryside & Rights of Way Act (2000) <http://jncc.defra.gov.uk/page-1378>
 - ★ HMSO: Natural Environmental and Rural Communities Act (2006) <http://www.legislation.gov.uk/ukpga/2006/16/contents>
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- ★ HMSO: Wildlife and Countryside Act 1981 (as amended 01.04.1996) <http://jncc.defra.gov.uk/page-1377>
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 - ★ JNCC, 2010: Handbook for Phase 1 habitat survey – a technique for environmental audit
 - ★ Joint Nature Conservation Committee (2010) Handbook for Phase 1 Habitat Survey: A technique for Environmental Audit. JNCC, Peterborough.



References

- ★ Ministry of Housing, Communities and Local Government (2021). National Planning Policy Framework.
- ★ Natural England (2023) Biodiversity metric 4.0: Auditing and accounting for biodiversity – Technical Supplement.
- ★ Natural England Joint Publication (2023) Biodiversity Metric 4.0 - Auditing and accounting for biodiversity.
- ★ National Planning Policy Framework (2021). <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- ★ The Bat Conservation Trust, London. Institute of Environmental Assessment (1995) Guidelines for Baseline Ecological Assessment. First Edition. E & FN Spon, London.

Legislation

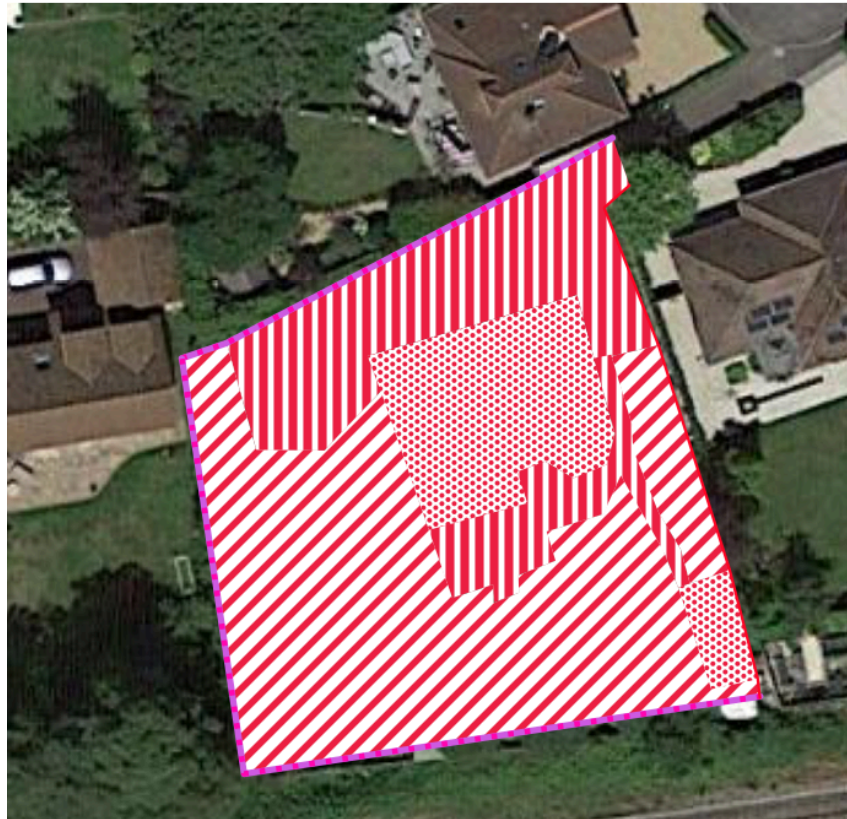
Relevant legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to throughout this report where appropriate. Their context and application is explained in the relevant sections of this report.

The relevant articles of legislation are:

- ★ The National Planning Policy Framework (NPPF, 2021);
- ★ ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2019);
- ★ Local planning policies;
- ★ The Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019;
- ★ The Wildlife and Countryside Act 1981 (as amended);
- ★ The Countryside and Rights of Way Act 2000;
- ★ The Natural Environment and Rural Communities Act 2006;
- ★ Local Biodiversity Action Plan for Wokingham.



Plan



- h2b - other hedgerow
- u1e - built linear feature
- u1 - built-up areas and gardens
- u1b - developed land, sealed surface
- u1b5 - buildings



Bat Building Assessment Results

#	Description and access points	Evidence	Grading	Photograph
1	Brick built residential dwelling with a multi pitched cement tile roof with dormer windows,	None	Negligible	