

18th June 2025

Technical Report

Preliminary Ecological Appraisal (PEA)

Stokes Lane Solar Farm

Stokes Lane Solar Farm Limited

your project our expertise

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Introduction

1.1 Terms of Reference

Atmos Consulting Ltd ('Atmos') were commissioned by Stokes Lane Solar Farm Limited (the 'Applicant') to undertake a preliminary ecological appraisal (PEA) report to inform a planning application for a proposed solar farm north and south of Rookery Farm Lane, to the south of Monk Sherborne, north of Basingstoke; hereafter referred to as the 'Site'.

The proposed solar farm (the 'Proposed Development') comprises the installation and operation of a ground-mounted solar PV farm and associated infrastructure with a generating capacity of up to 28MW. On-site infrastructure includes solar photovoltaic (PV) panels fixed to a dual-axis solar tracking system, and associated infrastructure including access roads, substation, cabling, inverter platforms, control room; a Distribution Network Operator (DNO) station; storage containers; security fencing and CCTV; and temporary construction compound. The planning application also includes the grid connection cable route.

This report presents the methodology and findings of all surveys that were commissioned. Baseline surveys were initially completed in 2021, and updated surveys were therefore completed in 2024.

1.2 Site Location and Description

The Site (approximate central national grid reference SU 60955 55379) is located approximately 750m north west of Basingstoke and 500 m west of Sherborne St John within the county of Hampshire. It comprises approximately 75 ha of arable fields bounded by hedgerows, with a total site area of 87.5ha including the cable route. Arable land makes up the majority of the greater landscape, with a golf course directly adjacent to the south eastern Site boundary.

1.3 Objectives

The aim of this report is to provide a preliminary ecological appraisal based on the habitats and protected or otherwise notable species which occur or have the potential to occur on or near the Site and may be impacted by the proposed works. The report follows the 'Guidelines for Preliminary Ecological Appraisal' 2nd Edition (Chartered Institute for Ecology and Environmental Management, 2017).

The objectives are to:

- Identify any sites designated for nature conservation and notable habitats on, near and adjacent to the Site;
- Identify any notable and/or protected plant or animal species, which may occur on or near the Site;
- Identify the presence of any invasive plant species on or adjacent to the Site;
- To describe the baseline ecological status of the Site in respect of habitats and protected species and undertake ecological surveys including an extended UK Habitat Classification (UKHab) survey, breeding birds and eDNA for great crested newt;
- Undertake a preliminary assessment of the potential impacts on any ecological receptors of conservation value identified on, near or adjacent to the Site;
- Recommend further surveys, including mitigation, offsetting opportunities and enhancement measures as appropriate; and

- Demonstrate that the development proposals contribute an overall biodiversity net gain across the Site of at least 10%, in line with the Environment Act and local planning policy.

2. Legislative Context

2.1 Conservation of Habitats and Species Regulations 2017

The Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations') consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments, including post-Brexit. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites ('Natura 2000 Sites' termed Special Areas of Conservation SACs or Special Protection Areas (SPAs). The Regulations designate these sites as being important for either habitats or species (listed in Annexes I and II of the Habitats Directive respectively).

2.2 Wildlife and Countryside Act 1981

National legislation for the special protection of selected species is provided in the Wildlife and Countryside Act 1981 (WCA), as amended, and the Habitats Regulations.

Under Section 1(1) and 1(2) of the WCA, all British bird species, their nests and eggs (excluding some pest and game species) are protected from intentional killing, injury or damage. Under Sections 1(4) and 1(5), special penalties are applied to bird species included in Schedule 1 of the WCA and protection is extended for these species to disturbance to birds whilst building, in or near a nest and disturbance to dependant young. Schedule 5 provides special protection to selected animal species other than birds, through Section 9(4) of the WCA, against damage to "any structure or place which any [wild animal included in the schedule] uses for shelter and protection" and against disturbance whilst in such places.

Non-native invasive plants are listed in Schedule 9 of the WCA which makes it an offence to spread or enable them to be spread in the wild. The list includes species such as Japanese knotweed *Reynoutria japonica* and Himalayan balsam *Impatiens glandulifera*.

A number of animals, known as European protected species (EPS), are provided full protection through inclusion in Schedule 2 of The Habitats Regulations. The Habitats Regulations provide protection against deliberate disturbance to those animals wherever they are present and provides tests against which the permission for a development (that may have an effect on a Schedule 2 protected species) must be assessed before permission can be given.

In addition to species protection, the WCA and Habitats Regulations also set out requirements/procedures for the notification, designation and protection of a range of statutory site designations in order to preserve important nature conservation resources.

All public authorities have a requirement to pay due regard to the conservation and enhancement of habitats and species through Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). Section 41 states, "Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity". To this end, Section 41 of the NERC provides for the establishment of a list of habitat and species that are considered to be of "principal importance for the conservation of biological diversity in England".

2.3 Environment Act 2021

The Environment Act 2021 makes provision about targets, plans and policies for improving the natural environment; environmental protection; waste and resource efficiency; air quality; water and nature and biodiversity. Part 6 is the key chapter for biodiversity as detailed below:

- Schedule 14 makes provision for at least 10% biodiversity gain to be a condition of planning permission in England; and

Schedule 15 makes provision about biodiversity net gain in relation to development consent for national significant infrastructure projects (NSIPs).

2.4 Hedgerow Regulations 1997

The Hedgerows Regulations 1997 were created to protect hedgerows, in particular those in the countryside aged 30 years or older. It is a criminal offence to remove a hedgerow in contravention to the regulations. The legislation includes sub-categories detailing specific descriptions of offences, the procedure of notification to the local planning authority, circumstances that exempt the need to notify, replacement and retention notices, appeals against those notices, local planning authority records of hedgerows, injunctions, and how hedgerows may be defined to be 'important'.

2.5 Protected Species Legislation

Bats

All bat species in the England and Wales are protected through the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and by the Conservation of Habitats and Species Regulations (2017). Bats are commonly referred to as European Protected Species (EPS).

It is an offence to deliberately or recklessly:

- capture, injure or kill a bat;
- harass an individual or group of bats;
- disturb a bat while it is occupying a structure or place used for shelter or protection;
- disturb a bat while it is rearing or otherwise caring for its young;
- obstruct access to a breeding Site or resting place, or otherwise deny the animal use of the breeding Site or resting place;
- disturb a bat in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of the species to which it belongs;
- disturb a bat in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- disturb a bat while it is migrating or hibernating;

It is also an offence of strict liability to:

- Damage or destroy a breeding Site or resting place of a bat even if they are not in use at the time (i.e. a summer roost during the winter period).

Seven species of bats are also listed on Section 41 of the Natural Environment and Rural Communities Act 2006 as species of principal importance/priority species.

Great Crested Newt

Great crested newt *Triturus cristatus* are afforded full statutory protection as a European protected species listed on Schedule 2 of The Conservation (Natural Habitats, &c.) Regulations 2017 (1994, as amended), which transpose into British law the European Community's Habitats Directive (92/43/EEC).

Under the terms of Regulation 39(1), with certain exceptions, a person commits an offence if he/she:

“(a) deliberately captures, injures or kills any [a great crested newt];

(b) deliberately disturbs wild [great crested newts].

(1A) For the purposes of paragraph (1)(b), disturbance of animals includes in particular any disturbance which is likely —

(a) to impair their ability —

(i) to survive, to breed or reproduce, or rear or nurture their young;

(ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate;

(b) to affect significantly the local distribution or abundance of [great crested newts];

(c) deliberately takes or destroys the eggs of [a great crested newt];

(d) damages or destroys a breeding site or resting place of [a great crested newt].”

It is also an offence under Regulation 39 to keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild great crested newt, or any part of, or anything derived from one.

All of the above protections apply regardless of the stage of the life of the animal in question.

Protection of great crested newts' is also provided for in the Wildlife and Countryside Act 1981, as amended. The great crested newt is listed on Schedule 5 of the Act, and is afforded partial protection under the terms of section 9(4)(b) and (c) and (5). This makes it an offence if any person:

9(4) *“... intentionally or recklessly ... (b) ... disturbs any [great crested newt] while it is occupying a structure or place which it uses for shelter or protection; or (c) ... obstructs access to any structure or place which any [great crested newt] uses for shelter or protection.”*

9(5) *“... (a) sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead [great crested newt], or any part of, or anything derived from, such an animal; or (b) publishes or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things”.*

There are provisions in the above legislation for the licensing of activities to facilitate development that would otherwise constitute an offence. However, the statutory agency Natural England (NE) advises that the requirement for licensing should be carefully considered by developers, on a site/activity-specific basis, and recommends consideration of non-licensed mitigation such as reasonable avoidance measures relating to timing of works and sensitive site clearance to minimise potential for adverse impacts to this species where this can be achieved.

Great crested newt are also listed on Section 41 of the Natural Environment and Rural Communities Act 2006 as a species of principal importance/priority species.

Badgers

Badgers and their setts are protected under the Protection of Badgers Act 1992 (as amended) and by Section 11 (Schedule 6) of the Wildlife and Countryside Act 1981 (as amended). It is illegal to kill,

injure, take, possess or cruelly ill-treat a badger or attempt to do so. Badger setts are protected from interference and it is an offence to obstruct access to, or any entrance of, a badger sett. In addition, it is illegal to disturb a badger when it is occupying a sett.

Wild birds, their nests and eggs

All wild birds are fully protected at all times under the 1981 Act. In summary it is an offence to intentionally:

- Kill, injure or take any wild bird.

It is also an offence to:

- Take, damage or destroy the nest of any wild bird while it is being built or in use.
- Take or destroy the eggs of any wild bird.

In addition to the above, it is also an offence for species listed on Schedule 1 of the 1981 Act as amended to:

- Disturb any wild bird whilst it is building a nest or is in, on or near a nest containing eggs or young.
- Disturb dependent young of such a bird.
- Nests of certain species (osprey, golden and white tailed eagle) are also protected at all times in England, Wales and Scotland.

A total of 49 bird species are listed on Section 41 of the Natural Environment and Rural Communities Act 2006.

2.6 Planning Policy and Guidance

2.6.1 National Planning Policy

The National Planning Policy Framework (NPPF) was first published by the government on 27th March 2012. It provided new guidance for local authorities, replacing the existing planning policy guidance, including that relating to biodiversity in Planning Policy Statement 9 (PPS9): Biological and Geological Conservation. In February 2025, an updated version of the NPPF was published.

The Government Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and their impact within the Planning System, which was originally accompanied PPS9, remains valid at the time of writing. The Circular states that its purpose is to provide 'administrative guidance on the application of the law relating to planning and nature conservation as it applies in England.'

Section 15 of the NPPF specifies the requirements for conserving and enhancing the natural environment. While a key aim of the NPPF is to assist plan-makers, it also provides advice for the determination of planning applications, much of which reaffirms the protection previously afforded by PPS9 to designated sites, priority habitats and species and ancient woodland. The NPPF places a greater emphasis on ecological networks and states that the planning system should provide net gains for biodiversity, by "minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures" (Paragraph 187).

The Environment Act (2021) provides a framework for environmental protection. Measures to halt environmental decline include a requirement for all applicable planning permissions to deliver a compulsory minimum of 10% biodiversity net gain from 12th February 2024 onwards, and from 2nd April 2024 onwards for sites qualifying as 'small sites'.

2.6.2 Local Planning Policy

Basingstoke and Dean Council adopted their local plan in 2016, with the core strategy being for 2011-2029. The plan is currently being updated.

The relevant policies from this plan are included below

Policy CN6 - Infrastructure

New development will be required to provide and contribute towards the provision of additional service, facilities and infrastructure at a rate, scale and pace to meet the needs and requirements that are expected to arise from that development.

Therefore, development proposals will be permitted where it can be clearly demonstrated that infrastructure can be provided and phased to support the requirements of the proposed development.

Infrastructure provision or improvements should be provided on-site as an integral part of a development. Site specific mitigation measures will be secured by planning obligations.

Where off-site measures are proposed they should meet identified needs, and the Community Infrastructure Levy (CIL) will be the primary mechanism to secure the necessary financial or equivalent contribution from development.

New infrastructure should be provided prior to occupation of the development, or in large schemes, prior to the occupation of the phase of development for which it is needed. This will be secured by appropriate planning conditions, s.106 planning obligations including bonds and the council's procedures with respect to the use of CIL revenue.

The requirements for strategic and local infrastructure are set out in the council's Infrastructure Delivery Plan (IDP), and Supplementary Planning Documents. This will also include development briefs and masterplans associated with allocated sites.

Policy EM4 - Biodiversity, Geodiversity and Nature Conservation

Development proposals will only be permitted if significant harm to biodiversity and/ or geodiversity resulting from a development can be avoided or, if that is not possible, adequately mitigated and where it can be clearly demonstrated that:

- There will be no adverse impact on the conservation status of key species; and
- There will be no adverse impact on the integrity of designated and proposed European designated sites; and
- There will be no harm to locally designated sites including Sites of Importance for Nature Conservation (SINCs) and Local Nature Reserves (LNRs); and
- There will be no loss or deterioration of key habitats type, including irreplaceable habitats; and
- There will be no harm to the integrity of linkages between designated sites and key habitats.

The weight given to the protection of nature conservation interests will depend on the national or local significance and any designation or protection applying to the site, habitat or species concerned.

Where development proposals do not comply with the above they will only be permitted if it has been clearly demonstrated that there is an overriding public need for the proposal which outweighs the need to safeguard biodiversity and/ or geodiversity and there is no satisfactory alternative with less or no harmful impact. In such cases, as a last resort, compensatory measures will be secured to ensure no net loss of biodiversity and, where possible, provide a net gain.

Application for development must include adequate and proportionate information to enable a proper assessment of the implications for biodiversity and geodiversity.

In order to secure opportunities for biodiversity improvement, relevant development proposals will be required to include proportionate measures to contribute, where possible, to a net gain in biodiversity, through creation, restoration, enhancement and management of habitats and features including measures that help link key habitats.

Approaches to secure improvements could be achieved through:

- A focus on identification Biodiversity Opportunity Areas and Biodiversity Priority Areas as identified in the council's Green Infrastructure Strategy (and subsequent updates) where appropriate; and through
- On-site and/ or off-site provision linked to new development in accordance with the council's adopted green space standards.

3. Methodology

3.1 Desk Study

A review of online data was undertaken in April 2024 to gather details of statutory nature conservation designations within 5 km of the Site, e.g. Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Ramsar Sites, Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) and Local Nature Reserves (LNRs). A 10 km radius was used for sites designated for their international importance with birds as a qualifying feature.

Hampshire Biodiversity Information Centre (HBIC) was contacted in April 2024 to obtain the following ecological data:

- Details of non-statutory designated Sites of nature conservation importance within 2 km of the Site, e.g. areas included on the Ancient Woodland Inventory (AWI), Sites of Nature Conservation Interest (SNCIs) and Local Wildlife Sites (LWSs); and
- Details of legally protected species or otherwise notable¹ species within 2 km of the Site.

A search for relevant information was made on the following websites:

- MAGIC www.magic.gov.uk - DEFRA's interactive, web-based database for statutory designations² (Accessed: 21/05/2025); and
- NBN Atlas <https://nbnatlas.org/> - for records of protected and notable species (Accessed: 21/05/2025)

An updated data search of NBN Atlas was undertaken in March 2025 for the grid connection not previously covered by the initial data search.

Note that the use of some NBN Atlas data is limited (e.g., commercial use of data provided under a CC-BY-NC licence is not possible); therefore, we may not be able to report full details of those records in such cases.

A review of Ordnance Survey maps and aerial imagery was undertaken to identify the presence of waterbodies within the Site. Great crested newts, which are protected together with their habitats, can travel relatively large distances between breeding ponds and terrestrial habitat. Following guidance issued by Natural England (English Nature, 2001), land within 250 m of a great crested newt breeding pond should be treated as potential great crested newt terrestrial habitat and evaluated accordingly.

Information collated from great crested newt development licences and personal survey licence returns in England is also available on the Government's mapping portal 'magic'. This indicates where ponds or areas have returned positive GCN survey results or have been licensed for GCN development mitigation. The data was reviewed to a 250 m – 1 km buffer surrounding the Site, depending on habitat connectivity and potential barriers.

¹ Species listed within published red data lists or within national and local policies as being of conservation concern. These include species listed under the Hampshire Local Biodiversity Action Plan (LBAP) and Species of Principal Importance in England (NERC Act 2006).

² Using the MAGIC website (www.Magic.gov.uk) which provides authoritative geographic information about the natural environment from across government.

3.2 Extended UKHab Survey

A UK Habitat (UKHAB) Classification survey of the solar Site was undertaken on 5th of June 2024 with the cable route later surveyed on the 15th and 16th April 2025 (Figure 1). The habitat types were identified and mapped in compliance with the UKHab guidance documents and a small minimum mapping unit.

Table 1: UKHab Minimum Mapping Units.

MM Unit	MM Area	MM Length	MM Width
	Minimum Mappable area feature (m ²)	Minimum Mappable length of linear feature (m)	Minimum Mappable width of area feature and maximum width of linear feature (m)
Small	25 (5x5)	5	1
Standard	400 (20x20)	20	5
Large	2500 (50x50)	20	5

Source: UKHab guidance, 2023.

Secondary codes have been used on the UKHab Map (Figure 1) to further describe the primary habitat present. Dominant plant species were noted, as were any protected, uncommon, invasive species or species indicative of particular habitat types, but there was no attempt to compile exhaustive species lists for this element of the Site assessment. Botanical nomenclature in this report follows Stace (2019) for both scientific and English names.

The condition of the habitats present was assessed using the information collected during this survey to input into the statutory biodiversity calculator.

In addition to mapping out habitats, a series of target notes were produced to highlight features of ecological interest, or any other features that may present a potential constraint to the proposed development.

Whilst not a full protected species or botanical survey, the extended method enables a suitably experienced ecologist to undertake a baseline ecological appraisal of the Site that:

- Provides a preliminary evaluation of the nature conservation significance of the Site and assesses the potential for impacts on habitats/species likely to represent a material consideration in planning terms; and
- Determines the scope of further specialized surveys that may be required to inform an ecological assessment.

3.3 Bats

An updated daytime survey was undertaken by a suitably experienced ecologist on the 5th June 2024 following the Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition) (Collins, 2023). This updated the earlier survey on 21st June 2021. The aim of this survey is to provide a detailed inspection of a tree/structure's exterior, to identify and record features that bats could use for roosting; Potential Roost Features (PRFs) as outlined in Table 2. The trees/structures on the Site were examined using direct observation and binoculars, where necessary, to enable closer inspection of suitable features. For any trees/structures with PRFs the condition was recorded as well as the number and details of PRFs.

Table 2: PRFs commonly used by bats for roosting and shelter, and field signs that may indicate use of trees/structures by bats.

Features used as bat roosts	Signs indicating possible use by bats*
<p>Tree PRFs</p> <p>Woodpecker holes</p> <p>Rot holes</p> <p>Hazard Beams</p> <p>Other vertical or horizontal cracks and splits (such as frost cracks) in stems or branches</p> <p>Partially detached plate-like bark</p> <p>Knot holes arising from naturally shed branches, or branches previously pruned back to the branch collar</p> <p>Man-made holes (e.g. cavities that have developed from flush cuts) or cavities created by branches tearing out from parent stems</p> <p>Cankers (caused by localised bark death) in which cavities have developed</p> <p>Other hollows or cavities, including butt-rots</p> <p>Double-leaders forming compression forks with included bark and potential cavities</p> <p>Gaps between overlapping stems or branches</p> <p>Partially detached ivy with stem diameters more than 50mm</p> <p>Structure PRFs</p> <p>Any potential access point beneath; windowsills, windowpanes, walls, behind peeling paintwork or lifted rendering, hanging tiles, weatherboarding, eaves, soffit boxes, fascias, lead flashing, gaps under felt (even including those of flat roofs), under tiles/slates and in existing bat boxes.</p> <p>Any gaps in brickwork or stonework should be identified and searched because they may allow access to cavity- or rubble-filled walls.</p>	<p>Bat droppings in, around or below a PRF</p> <p>Odour emanating from a PRF</p> <p>Audible squeaking at dusk or in warm weather</p> <p>Staining below the PRF</p> <p>Tiny scratches around PRF</p> <p>Flies around entry point</p> <p>Smoothing of surfaces around cavity/ cavity entrance</p>

*Sometimes bats leave no visible sign of their presence on the outside of a building (and even when they do, wet weather can wash evidence away).

Each individual building/structure was assessed as having none, negligible, low, moderate, or high suitability for roosting bats, with any trees likely to be impacted by the proposed works assessed as containing either PRFs that likely support only individual bats (PRF-I) or multiple bats (PRF-M), according to the guidelines as summarised in Table 3 (Collins, 2023). Habitats with commuting, foraging and swarming suitability for bats were considered in conjunction with suitable roosting habitat.

Table 3: BCT Bat Roost Categories.

Potential suitability	Description of roosting habitats	Commuting and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter,	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well

Potential suitability	Description of roosting habitats	Commuting and foraging habitats
PRF-I	protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation) A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential	connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in parkland situation) or a patch of scrub.
Moderate	A structure or with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High and PRF-M	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous, high quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
Confirmed roost	A structure or tree supporting evidence of bat presence, such as droppings and feeding remains.	N/A

3.4 Badger

The Site was surveyed for badgers following the methodology outlined by Harris and Jefferies (1991). The search covered all land within the Site, and up to 30 m potential impact zone beyond the boundaries. Any suitable habitat was target noted. Evidence of badger presence includes:

- Setts (which were classified as main, annex or outlier);
- Latrines or droppings;
- Paths, push-throughs or trackways;
- Hairs;
- Footprints;
- Snuffle pits;
- Scratching posts; and
- Feeding remains.

3.5 Habitat Suitability Index (HSI) Surveys

There were no ponds located within the Site but five ponds were located within 250 m of the Site situated within Weybrook Park Golf Club.

This followed published guidance³ which assigns a value to ten suitability indices including pond size, presence of aquatic plant species, fish and waterfowl. The overall value indicates the suitability of the pond for GCN, as follows:

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

3.6 Great Crested Newt eDNA

Five ponds were identified adjacent to the solar Site boundary within the golf club. These were surveyed first on the 30th June 2021 and again on 5th June 2024. A further ten ponds were identified within the 250 m buffer zone; of these, eight were scoped out due to being separated from the grid connection route by unsuitable terrestrial habitat for GCN, such as urban residential areas.

The eDNA survey was conducted following the appropriate methodology by two ecologists experienced in this survey method. Once the water samples were collected from each of the ponds, they were stored in a refrigerator before being couriered to a laboratory where the samples were subsequently analysed.

The laboratory testing was conducted in two phases; first the sample was extracted. This involved pooling together all tubes from each pond to combine all the eDNA. The pooled sample then underwent real-time Polymerase Chain Reaction (q-PCR). This process amplified selected parts of the eDNA, allowing it to be detected and measured.

QPCR combines the PCR amplification and detection into a single step which eliminates the need to detect products using gel electrophoresis. With q-PCR, the fluorescent dyes specific to the target sequence were used to label PCR products during the thermal cycling. The accumulation of fluorescent signal during the exponential phase of the reaction was measured for fast and objective data analysis.

The primers used in this process were specific to a part of mitochondrial DNA only found in GCN ensuring no other DNA is amplified. Samples were tested in a clean laboratory and the different phases of testing were kept separate to reduce any risk of cross-contamination. Each pooled sample was replicated 12 times to ensure accurate results. If one of the 12 replicates would test positive the sample was declared positive. The sample was only declared negative if no replicates showed amplification.

3.7 Breeding Bird Surveys

A modified Common Bird Census approach (Gilbert, 1998) was used, which typically involves four visits to the site between end of April and July, each comprising a walkover by an experienced ornithologist in which all parts of the Site were walked over to a minimum distance of 50 m (where accessible). Four visits were carried out between the within April to July 2024. All birds seen or heard were recorded on Site maps using British Trust for Ornithology survey nomenclature. Table 4 below includes details for each survey visit.

³ Habitat Suitability Index, Oldham et al 2000

Table 4: Breeding Bird Survey Dates

Start date	End date	Surveyor
29/04/2024	30/04/2024	NR
21/05/2024	22/05/2024	EP
17/06/2024	18/06/2024	NR
15/07/2024	16/07/2024	NR

Once all surveys were complete, analysis of territories was undertaken. This involved an assessment of bird records across all four survey visits. Four categories were recognised:

- Confirmed territory – nest was found or adults seen carrying food (unless raptors) or nesting materials or presence of juvenile birds on the site;
- Probable territory – bird(s) were seen in the same location on more than one location, breeding behaviour was observed on at least one occasion (e.g. courtship, display or singing, pairs in suitable habitat, territorial disputes);
- Possible territory – birds observed only once in one location, but evidence of breeding was observed, or birds recorded repeatedly (i.e. across several visits) in suitable habitat although no evidence of breeding observed; and
- Non-breeding – bird was recorded with no breeding behaviour observed and on no other visit was a bird observed in the same location.

3.8 Limitations

The ecological surveys were completed in the optimum timeframes and the Site was entirely accessible. Access was not granted for the two ponds within the suitable adjacent habitats to the grid connection route. This is not considered to be a limitation as the proposed works for the grid connection are impacting sub-optimal GCN habitats and are temporary works.

4. Results

4.1 Desk Study

There is only one statutory nature conservation designation within 2 km of the Site. There were five statutory designated sites identified within 5 km of the Site during the data search. These include the national designation of Site of Special Scientific Interest (SSSI) and the local designation of Local Nature Reserve (LNR). Details of each of these sites can be found below.

Pamber Forest and Silchester Common SSSI & LNR

Located 3.8 km north of the Site, this 340 ha SSSI is designated for ancient woodland. The site consists of an extensive ancient oak wood, two heathland commons, and a series of unimproved wet meadows. The association of ancient woodland, heath and grassland supports a diverse range of plants and animals, including many nationally rare species of bird including the woodlark *Lullula arborea*, nightjar *Caprimulgus europaeus*, and Dartford warbler *Sylvia undata*.

Ron Ward's Meadow with Tadley Pastures SSSI

Located 4.5 km north of the Site, this 11.3 ha SSSI is designated for its biological interest. This meadow lies on a south-facing hillside, and comprises an unimproved, herb-rich grassland, managed traditionally as a hay meadow. There are 28 species indicative of ancient grassland present, of which a number are regionally uncommon.

Popley Ponds LNR

Located 2.8 km east of the Site, this 1.44 ha LNR is designated for its range of trees and plants and large amphibian population including great crested newts.

Cineham Woods (incl Great Sorrells, Tollhouse, Guinea & Long Copses) LNR

Located 4.2 km east of the Site, this 9.17 ha LNR is known for its semi-natural ancient woodland and its range of wildlife.

Daneshill Park Woods LNR

Located 4.7 km east of the Site, this 4.43 ha LNR is comprised of hazel coppice and an old orchard as well as areas of scrub important for wildlife.

Non-Statutory Designated Sites

There were 29 non-statutory designated sites identified within a 2 km buffer of the Site during the data search, the closest of which is 230 m north of the Site. No non-statutory sites are located within or directly adjacent to the Site. These sites include Sites of Importance for Nature Conservation (SINC) and Road Verges of Ecological Importance (RVEI). Details of each of these sites can be found in Appendix A.

4.1.1 Species of Conservation Interest

Amphibians

One GCN record was returned from within 2 km of the Site. This record was recorded in 2013, 1.4 km away from the Site and includes 16 individual records of GCN, all from the same location.

Nine records of common toad *Bufo bufo* were returned from within 2 km of the Site. The most recent record (2023) was recorded 0.8 km from Site.

Bats

Seven bat species were returned in the data search. No bats were returned within the Site, with most records from the east and north of the Site. The data search did not provide roost information. Results are displayed in Table 5.

Table 5: Bat Records from 2 km of the Site

Species	Number of records	Dates	Closest to Site (m)
Brown Long-eared Bat <i>Plecotus auritus</i>	7	2002-2019	236 (2016)
Common pipistrelle <i>Pipistrellus pipistrellus</i>	5	2002-2015	236 (2016)
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	26	2002-2015	236 (2016)
Noctule <i>Nyctalus noctula</i>	3	2016-2020	236 (2016)
Long-eared Bat <i>Plecotus auritus</i>	3	2010-2019	1220 (2010)
<i>Myotis</i> Bat species	3	2015-2019	236 (2016)
Natterer's Bat <i>Myotis nattereri</i>	1	2016	1236 (2016)
Serotine <i>Eptesicus serotinus</i>	1	2016	756 (2016)

Badger

Four records of badger *Meles meles* were identified within 2 km of the Site and date from 1996-2019. The 1996 record is the closest to the Site, at 345 m south west of the boundary; due to the sensitive nature of the record no further information is provided for this record. However, this is considered historical. The most recent record is from approximately 1.8 km east of the Site.

Birds

The data received for bird species from HBIC are varying in resolution, with some of the Schedule 1 records only given as a 10 km grid square due to sensitivity. These were goshawk *Accipiter gentilis*, stone curlew *Burhinus oedipnemos*, little ringed plover *Chiadris dubius*, peregrine *Falco peregrinus* and European honey buzzard *Pernis apivorus*. As the 10 km grid square covers a large area in which the site is located, it is unlikely that the records originate from the Site itself, especially as the habitats utilised by these birds are not found on Site. Therefore, these have been discounted from the table below.

There are a number of bird records from within 2 km of the Site boundary, of which 31 species are protected under Schedule 1 of the Wildlife and Countryside Act 1981. Additional notable and protected bird species are listed in Appendix B.

Table 6: Schedule 1 bird species within 2 km of the Site boundary

Species	Number of records	Dates
Avocet <i>Recurvirostra avosetta</i>	5	2008-2019
Black Redstart <i>Phoenicurus ochruros</i>	2	2000
Black Tern <i>Chlidonias niger</i>	4	2002
Black-tailed Godwit <i>Limosa limosa</i>	40	2000-2019
Brambling <i>Fringilla montifringilla</i>	11	1994-2006
Cetti's Warbler <i>Cettia cetti</i>	8	2015-2018
Common Firecrest <i>Regulus ignicapilla</i>	12	2002-2019
Eurasian Hoopoe <i>Upupa epops</i>	1	2008
Fieldfare <i>Turdus pilaris</i>	39	1997-2019
Garganey <i>Spatula querquedula</i>	2	2001-2002
Green Sandpiper <i>Tringa ochropus</i>	220	2000-2019
Greenshank <i>Tringa nebularia</i>	125	2002-2018

Species		Number of records	Dates
Hobby	<i>Falco subbuteo</i>	33	2000-2018
Kingfisher	<i>Alcedo atthis</i>	56	2000-2019
Mediterranean Gull	<i>Ichthyaetus melanocephalus</i>	5	2018-2019
Merlin	<i>Falco columbarius</i>	1	2004
Red Crossbill	<i>Loxia curvirostra</i>	31	2001-2019
Red Kite	<i>Milvus milvus</i>	161	1995-2019
Redwing	<i>Turdus iliacus</i>	37	1999-2019
Ruff	<i>Calidris pugnax</i>	48	2001-2019
Barn Owl	<i>Tyto alba</i>	78	1996-2019
Marsh Harrier	<i>Circus aeruginosus</i>	3	2004-2019
Osprey	<i>Pandion haliaetus</i>	1	2015
Wood Sandpiper	<i>Tringa glareola</i>	46	2004-2019
Woodlark	<i>Lullula arborea</i>	10	2002-2009

Other data records were provided at a closer resolution, between 1 km and 100 m squares. The following have therefore been previously recorded on or adjacent to the site:

- **Golden plover** *Pluvialis apricaria* 1 record of 30 birds from 4th October 2017 from HBIC, and an older record on NBN Gateway of a flock (numbers not given) on the boundary between the Site and the golf course from December 2009. Local knowledge has indicated flocks of birds are sometimes observed on the margins between the golf course and Site as the grass is kept longer here.
- **Red kite** recorded several times but no evidence of historical or current nests in nearby trees, so likely to be records in flight.
- **Grey partridge** *Perdix perdix* a single individual record.
- **Barn owl** *Tyto alba* recorded on edge of Site in 2018, a single adult. The Site is limited in its suitability for barn owl, due to lack of suitable habitat for foraging and nesting.
- **Skylark** *Alauda arvensis* has been recorded on edges of Site into the golf course.

Dormouse

On record was returned for hazel dormouse *Muscardinus avellanarius* within 2 km of the Site, from a location approximately 940m north of the Site.

Invertebrates

There are a number of invertebrate records from within 2 km of the Site boundary, with the white-clawed crayfish *Austropotamobius pallipes* being the only invertebrate species protected under Schedule 5 of the Wildlife and Countryside Act 1981. However, these records are historical with the most recent being from 1994. The additional invertebrate species mentioned below in Table 7 are either listed in the local Biodiversity Action Plan (LBAP), are listed as Species of Principal Importance in England under the NERC Act (2006) or are on the IUCN Red List of Threatened Species.

Table 7: Invertebrates of conservation interest within 2 km of the Site boundary

Species	Number of records	Dates
Brown tree ant <i>Lasius brunneus</i>	1	2003
Common darter <i>Sympetrum striolatum</i>	6	2012
Cramp-ball fungus weevil <i>Platyrhinus resinosus</i>	1	2018
Flax flea beetle <i>Longitarsus parvulus</i>	1	1996

Species	Number of records	Dates
White-clawed crayfish <i>Austropotamobius pallipes</i>	3	1985-1994
<i>Lasiorhynchites cavifrons</i>	1	2014
<i>Lymexylon navale</i>	1	2015
<i>Platystomos albinus</i>	1	2013
<i>Psylliodes luteola</i>	1	2004
Stag Beetle <i>Lucanus cervus</i>	1	2017
<i>Stenus fornicatus</i>	1	2004
White ermine <i>Spilosoma lubricipeda</i>	9	2016
Rustic <i>Hoplodrina blanda</i>	16	2016
Knot grass <i>Acrionicta rumicis</i>	2	2016

Otter and water vole

No otter *Lutra lutra* records were returned within 2 km of the Site.

Four records of European water vole *Arvicola amphibius* were returned within 2 km of the Site. The nearest record was 1.4 km away from the Site.

Other Mammals

There are 22 records of brown hare *Lepus europaeus* within 2 km of the Site, recorded between 1995-2019. There are also 4 records of hedgehog *Erinaceus europaeus* from between 1995-2018.

There is one record of harvest mouse *Micromys minutus* from 2017, 740 m east of the Site. There are two records of polecat *Mustela putorius* from between 2019-2020 the closest of which was located 650 m east of the Site. There are also 20 records of water shrew *Neomys fodiens* from two locations 2008, the closest being 600 m north east of the Site.

Reptiles

Four records of grass snake *Natrix natrix* were returned, all recorded in 2022. The closest record is 1.1 km from the Site.

One record of slow worm *Anguis fragilis* was returned, 1.5 km from the Site.

Plants

The data search returned records of 72 species of notable and protected plants within 2km of the Site. Listed below are Species of Principal Importance found within 2 km of the Site boundary post-2000.

Table 8: Plants of conservation interest recorded within 2 km of the proposed Site

Species	
Broad-fruited Cornsalad	<i>Valerianella rimosa</i>
Cornflower	<i>Centaurea cyanus</i>
Chamomile	<i>Chamaemelum nobile</i>
Juniper	<i>Juniperus communis</i>
Musk Orchid	<i>Herminium monorchis</i>
Narrow-leaved Helleborine	<i>Cephalanthera longifolia</i>
Shepherd's-needle	<i>Scandix pecten-veneris</i>
Thorow-wax	<i>Bupleurum rotundifolium</i>
White Helleborine	<i>Cephalanthera damasonium</i>

Non-native Invasive Species

The data search returned three records of Japanese knotweed from 2015, including one record located adjacent to the north west of the Site. There were two records of Himalayan balsam *Impatiens glandulifera*, each located over 1 km away from the Site boundary. There are also two records of rhododendron *Rhododendron ponticum* from 1991 and 2017; however, these were both located over 1 km from the Site.

4.2 Habitats

Arable and horticulture (c1)

The Site consisted of a mixture of c1 habitats c1c7 other cereal crops and c1d8 other non-cereal crops. The field margins were approximately 1m wide with species including common nettle *Urtica dioica*, common hogweed *Heracleum sphondylium*, scattered bramble *Rubus* sp., cock's-foot *Dactylis glomerata*, smooth meadow-grass *Poa pratensis*, ground ivy *Glechoma hederacea*, cow parsley *Anthriscus sylvestris*, wood avens *Geum urbanum*, annual meadow grass *Poa annua*, cleavers *Galium aparine*, barren brome *Bromus sterilis*, creeping thistle *Cirsium arvense*, forget me not *Myosotis*, white dead nettle *Lamium album*, common stork's-bill *Erodium cicutarium* and green alkanet *Pentaglottis sempervirens*.

Other blackthorn scrub (h3a6)

A dense thicket of blackthorn scrub was present along the grid connection route dominated by blackthorn and limited amounts of scattered bramble.

Modified grassland (g4)

Grass verges with a mixed run the majority of the length of the grid connection route with species including Yorkshire fog, cock's-foot, rye grass, creeping buttercup, geranium species, vetch species, nettles, dandelion, ground ivy, lesser celandine *Ficaria verna* and meadow sweet *Filipendula ulmaria*.

Native hedgerows (h26a, h2a5.11 and h26a.11)

The fields within the Site were bounded primarily by other native hedgerows (h26a) and a limited number of species rich native hedgerows with trees (h2a5.11) and native hedgerows with trees (h26a.11). The hedgerows ranged from approximately 2-4.75 m in height and 1.5-4 m in width. The species throughout the Site consisted of hazel *Corylus avellana*, hawthorn *Crataegus monogyna*, field maple *Acer campestre*, dog rose *Rosa canina*, elder *Sambucus nigra* and blackthorn *Prunus spinosa*.

Line of trees (w1g.33)

Several lines of trees bounded the fields within the Site with the species consisting of hawthorn, hazel, field maple, elder, holly *Ilex aquifolium*, over grown dog rose, cherry *Prunus avium*, elder, beech *Fagus sylvatica*, lime *Tilia x europaea*, ash *Fraxinus excelsior* and sycamore *Acer pseudoplatanus*.

4.2.1 Off-site Habitats

Modified Grassland (g4)

The area to the south east of the Site is part of Weybrook Park Golf Club, and consists primarily of modified grassland of little diversity kept at a short sward.

Other broadleaved woodland (w1g)

There were a number of small woodland areas within the wider area of the grid connection route with the tree species consisting of yew *Taxus baccata*, holly, hazel, oak, hawthorn, ash, silver birch and willow species. The understory for the woodlands consisted of bluebell *Hyacinthoides non-scripta* and ramsons *Allium ursinum*.

Standing open water and canals, pond (non-priority) (r1.40)

Five ponds were located within the Weybrook park Golf Club see Appendix E for full pond descriptions. Ten ponds were located within 250 m of the grid connection route.

4.2.2 UKHab and Biodiversity Net Gain Survey

The habitats within the Site were assigned a condition score (where appropriate) as illustrated on Figure 1 and summarised in Table 9.

Table 9: Condition assessment of habitats within Site

Map Label	UKHab habitats type	Condition Assessment	Justification
A1	Other non-cereal crops (c1d8)	N/A	N/A
A2 & A3	Other cereal crops (c1c7)	N/A	N/A
G1	Modified grassland (g4)	Good	Passes all condition criteria
G2	Modified grassland (g4)	Poor	Fails A & B
G3	Modified grassland (g4)	Poor	Fails A & B
G4	Modified grassland (g4)	Good	Passes all condition criteria
S3	Other blackthorn scrub (h3a6)	Poor	Passes C & E.
W1	Other broadleaved woodland (w1g)	Moderate	Scores a-2, b-3, c-3, d-3, e3, f-3, g-2, h-3, i-2, j2, l-1, m-2.
Ht1 & Ht2	Species-rich native hedgerow, hedgerow with trees (h2a5.11)	Moderate	Fails B1, C2 and E1
Ht3	Other native hedgerow, hedgerow with trees (h26a.11)	Poor	Fails A1, A2, C1, D1, D2 and E1.
H1 & H3	Other native hedgerow (h26a)	Moderate	Fails B1, B2 and C2
H2	Other native hedgerow (h26a)	Moderate	Fails C1 and C2
Lt1, Lt2, Lt3, Lt4 & Lt5	Other broadleaved woodland, line of trees (w1g.33)	Moderate	Fails C & D

4.3 Protected Species

Amphibians and Reptiles

There are records of common toad, great crested newt, and common lizard *Zootoca vivipara* within 2 km of the Site. Great crested newts were recorded 1.6 km east of the Site, but connectivity to the Site is limited as the village of Sherborne St. John and the A340 are located between the location of

these records and the Site. The records of common lizard are located 1.9 km north east of the Site, but due to distance and the presence of the A340, connectivity to the Site is limited.

The Site offers no breeding opportunities for amphibians due to the lack of on-site waterbodies; however, five off-site ponds were identified and assessed.

The HSI results for the five off-site ponds all resulted in “poor” suitability scores for great crested newt. The result was heavily influenced by the presence of fish and the poor terrestrial habitat surrounding the ponds due to regular mowing as part of a golf course. The eDNA results for the off-site ponds were all negative. A further ten ponds were located within 250 m of the grid connection route of these eight were separated by unsuitable habitat such as arable or residential areas or barriers to dispersal such as watercourse or roads were present and therefor scoped out. The two suitable ponds were located to the north of the grid connection these were unable to be surveyed as access was not granted

The lack of positive GCN records and limited terrestrial habitat for other species of amphibians and reptiles (hedgerows only, Site is dominated by arable fields and bare ground) means they are unlikely to be present on Site. It is therefore considered that GCN are absent from the Site and will not be considered further in this assessment. The full results for the HSI scores for all ponds are included in Appendix C, with the eDNA results available in Appendix D.

Badgers

There were limited recent records of badger in close proximity to the Site. The Site is considered sub-optimal for badger due to a lack of suitable sett creation habitat – the Site is very flat with no banks or ditches; however, hedgerows could provide some limited sett creation opportunities. There were two partially used outlier setts located along the north western field boundary of the northern field (TN2 & TN3). The sett was classified as partially used due to presence of twigs and leaves within the entrance of both holes and both tunnels ran towards the north west away from the Site. It is considered that at the time of the survey the holes were in use by rabbits with rabbit droppings present. There were signs of badger activity within the Site, including latrines and mammal pathways; the badger field signs were all recorded in the southern fields which contained a potato crop at the time. It is therefore considered that there is a sett somewhere off Site to the south, with the clan from this sett using the Site to forage.

Bats

HBIC reported records of nine bat species within 2 km of the Site, although no records originated from within or directly adjacent to the Site.

There were no buildings located within the Site and all the trees within the hedgerows were classified as having negligible bat roost potential all at the time of survey with smooth bark and no splits or crevasses in the trunk or branches.

Some mature trees within the field boundaries appeared to exhibit bat roost potential.

Overall the Site has limited suitability for foraging bats due to its arable nature, but may be used as a commuting route due to the hedgerows which allow some connectivity to the surrounding landscape, which includes the off-site golf course ponds.

Birds

Records of birds provided by HBIC included sightings of a number of protected species within the Site such as golden plover and barn owl. However these records appear to suggest no more than occasional use and do not indicate that these species exclusively use the Site. Given the timing, the

birds involved are likely to be migratory or cold-weather migrant and the occasional/limited use of the area indicates it may be of limited value.

Skylark were heard singing across the Site during the initial survey undertaken in 2021, which prompted the scheduling of a full breeding bird survey between April and July 2024. Signage was present on rough grass verges within the golf course adjacent to the Site, indicating the habitat was managed for breeding skylark. Breeding territories were identified in all fields on Site and in much of the 500 m buffer, including the golf course; a total of 36 probable and 44 possible territories were found in the entire survey area, with **34 of all territories found within the Site itself**.

The hedgerows and trees on Site provide suitable bird nesting habitat which were well used by farmland bird species such as linnet *Linaria cannabina*, whitethroat *Sylvia communis* and yellowhammer *Emberiza citrinella* over the course of breeding bird surveys; linnet were confirmed breeding in two areas immediately adjacent to the Site and had two further probable and five possible breeding territories, whitethroat had one probable and six possible territories, and yellowhammer had two probable and four possible territories. Food carrying was observed from linnet and it is likely the crop fields support these species during the breeding season but also in the non-breeding season; a peak count of six Yellowhammers were observed feeding on stubble in the NE buffer at the onset of the season in April, before establishing territories in the centre and eastern areas of the Site.

Other species confirmed breeding during the surveys were dunnock, moorhen, mallard coot, chiffchaff, blackcap, blue tit, blackbird, robin and woodpigeon, all of which were either found on boundary features or in the buffer. A total of 44 species were recorded across the suite of surveys, most of which were breeding; however, non-breeding territories for species of conservation interest such as swift, herring gull and black-headed gull were observed on Site.

Raptors: buzzard, kestrel and red kite were active over the entire site and adjacent areas. Of these, buzzard had a possible breeding territory and red kite had a probable territory due to the sighting of an immature bird in July in the southern field. A peak count of five birds was observed in a field being ploughed adjacent to the Site in June. Red Kite were active over the Site on every survey and prominent vocal activity was heard on three out of four surveys adjacent to the site to the east and northeast.

Invertebrates

The habitats on the Site are common and widespread and unlikely to support a wide range of invertebrate species of importance. HBIC returned numerous records for notable invertebrate species within 2 km of the Site and it is considered that the hedgerows and field margins would be more suitable to support these species instead of the lower value arable fields.

Otter and Water vole

No otter records were returned by HBIC, but water vole were recorded approximately 600 m north east of the Site. Ecological connectivity to the Site is limited due to the presence of roads and residential housing. Due to the lack of ditches and watercourses, the Site is limited in its potential for these species and will not be considered further in this assessment.

Other Mammals

The desk study returned results for brown hare, hedgehog, dormouse, harvest mouse, polecat and water shrew within 2 km. Of these, brown hare is most likely to be present on the Site itself, which offers some suitable breeding habitat and feeding resources. The habitats on Site are less suitable

for hedgehog due to the lack of cover and shelter, as well as the fields potentially being lower in invertebrate diversity on which they feed.

Overall the Site is considered sub-optimal for dormouse due to its arable nature and the lack of sustainable and connected woodland habitat to the reported population. Whilst some of the hedgerows on Site included important shrubs such as hazel, these are in isolation and not sufficient to support a dormouse population.

There is one record of harvest mouse from 2017 that comes from 740 m east of the Site. This species is known to occupy arable habitats, but can be impacted by more intensive farming regimes. It is possible that the Site does offer suitable habitat for this species, potentially in the field margins.

There are two records of polecat from between 2019-2020 the closest of which was located 650 m east of the Site, but the arable nature of the Site limits its suitability for this species.

There are also records of water shrew from 2008, the closest being 600 m north east of the Site, but the Site does not contain suitable aquatic habitat for this species.

Plants

The data search returned records of 72 species of notable and protected plants within 2 km of the Site. Due to the intensive nature of the Site, it is considered unlikely that the Site is host to a wider range of notable species supported by permanent grassland habitats. Arable land can support a range of notable annual species including species that are listed as a Species of Principal Importance in England under the NERC Act (2006) such as perfoliate pennycress *Thlaspi perfoliatum*, greater yellow-rattle *Rhinanthus angustifolius* and a number of BAP species such as Purple ramping-fumitory *Fumaria purpurea* and shepherd's needle *Scandix pecten-veneris*; however, only common and widespread plant species were identified during the survey.

Non-Native Invasive Species

The data search returned three records of Japanese knotweed from 2015, including one record located adjacent to the north west of the Site. However, no non-native invasive species were identified on-site during the survey.

5. Evaluation and Potential Impacts

5.1 The Scheme

The proposals for the Site involve the construction of a solar farm and associated infrastructure. The Applicant provided the layout of the Proposed Development (ES Figure 1.2: 110-014A-250605 - Site Layout for Planning). The Proposed Development sets out:

- the solar panel array will be placed within the open fields;
- existing field entrance will be utilised, where possible; and
- hedgerow and trees will be retained, where possible.

5.2 Statutory Designated Sites

No statutory designated sites lie within or directly adjacent to the Site.

There are several SSSIs within 5 km of the Site; however, the Site is not located within any SSSI Impact Risk Zone (IRZ) that requires Natural England consultation for this type of development.

Due to distance and lack of ecological connectivity, effects from the proposed development on statutory designated sites are unlikely.

5.3 Non-Statutory Designated Sites

The nearest non-statutory designated site to the Site boundary is Monk Sherborne Wood SINC, a 59 ha area of ancient and ancient replanted woodland located approximately 230 m north of the Site.

Effects from the proposed development are considered unlikely, given the lack of impact pathways due to the distance from the Site, which provides a buffer from potential impacts.

5.4 Habitats

The habitats on the Site are generally of limited ecological value and are typically widespread in the wider area. Hedgerows are considered a Habitat of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Hedgerows should be retained and incorporated into the design, or replaced to ensure there is no net loss of the boundary feature. If any hedgerow is to be lost, these should be replaced with more valuable native species-rich intact hedgerows, which may be shorter in total length than existing species-poor hedgerows, to still retain ecological value. It should be ensured that ecological connectivity across the Site via these linear features is retained.

Any master plan should seek to retain or enhance existing habitats, if possible. If any such habitats are to be lost to the future development of the Site, it is important that they are replaced with similar habitat so that there is no net loss of habitat across the Site and it is possible to deliver a minimum of 10% BNG.

5.5 Protected and Priority Species

Amphibians and Reptiles

The common toad is listed as a priority species under the NERC Act 2006. The Site is sub-optimal, with the intensively farmed arable fields providing little cover at ground level, and there being numerous areas of bare ground. There are no recent records of amphibians close to the Site, and

due to the lack of breeding habitat within the Site and the limited extent of suitable terrestrial habitat it is considered unlikely that amphibian species will be impacted by development proposals.

All native reptile species are afforded partial protection under the Wildlife and Countryside Act 1981 (as amended). The Site is limited in its suitability for reptiles, due to the disturbance caused by arable farming, lack of connecting vegetation cover and limited hibernation habitat. The hedgerows and adjacent field margins are potentially more suitable for reptiles, but are fairly isolated in the landscape. On the basis that these habitats are not likely to be affected by the proposed development, no impacts on reptiles are anticipated.

The following mitigation measures should be implemented:

- All works near the ponds such as installing the grid connection within the Site should be undertaken under Reasonable Avoidance Measures (RAMs).
- A toolbox talk should also be given to Site personnel prior to works commencing.
- A pre-commencement fingertip search should be undertaken prior to any vegetation clearance or destruction of suitable terrestrial habitat.
- Vegetation clearance should be cleared to no lower than 150 mm above ground level to leave the ground undisturbed.
- Any debris moved from the ground should be checked by a suitably qualified Ecologist prior to its removal and must be carefully lifted and not dragged along the ground to prevent harm to any amphibians that may be sheltering beneath.
- Work must cease if a large number of reptiles or amphibians (5+) are identified, and further advice should be sought from an Ecologist.

A number of enhancements are being put in place as a result of the Proposed Development which will increase the terrestrial habitat within the Site and therefore increase the dispersal of amphibians and reptiles within the Site and the wider area. Grassland is proposed to be planted under the solar panel array, a species rich grassland around the edge of the Site, patches of scrub planting, new hedgerow planting, infilling of current hedgerows and trees belt planting are proposed to be planted throughout the Site. These habitats offer more suitable terrestrial habitat for commuting, foraging and for both amphibians and reptiles than the current arable habitat dominating the Site. The hibernation potential for amphibians and reptiles will also increase through the creation of four herptile hibernacula within the Site.

Badgers

Badgers and their setts are protected in England and Wales under the Protection of Badgers Act 1992.

There were limited recent records of badger in close proximity to the Site, two outlier setts used by rabbits at the time of the surveys are located along the north western field margin of the northern field there was also evidence of badger moving through the Site found with a latrine at the south of the Site and along areas of the grid connection. Badgers are a widespread and mobile species it is likely that if badgers are present in the wider area, and may range onto the Site and create new setts within the Site. A pre-commencement check of the two outlier setts is recommended to ensure they are not in use by badgers prior to the start of any works. A 30 m buffer zone will be maintained around the badger setts during the construction period to avoid impacting badger activity.

With badgers located within the wider areas as a good practice measure, any excavations should be covered overnight, or a mammal ladder placed inside to prevent any ranging mammals (such as badger) from becoming trapped. Badgers are passing through the Site therefore any security fencing

will require badger gates to be installed so that badger dispersal is maintained within the Site and the wider area.

Badgers are highly mobile creatures and can establish setts overnight. It is therefore recommended that a pre-commencement badger check be undertaken prior to any works.

A number of enhancements are being put in place as a result of the Proposed Development. The planting of grassland throughout the Site will result in an increase in foraging and commuting habitat for badger. A number of new hedgerows and line of trees are proposed to be planted within the Site this will increase the suitable habitat for both badger sett creation and commuting.

Bats

All native bat species and their roosts are protected as UK and European protected species, and are listed as priority species under the Hampshire LBAP. Nine such species being identified by records within 2 km of the Site.

Hedgerows on Site may provide some foraging opportunities for bats and likely provide commuting pathways across the landscape. Large scale heavy construction is not a feature of solar farms, however, it is recommended that if any nocturnal lighting is to be used in the development then it does not directly illuminate any of these habitat features and that any lighting scheme is designed to minimise impacts on commuting or foraging bats, such as the use of lighting cowls to limit upwards and horizontal light spill.

The Proposed Development avoids hedgerows and trees, and existing access points are used wherever possible. Using existing access points will avoid any loss or fragmentation of potential flightline habitat, and thus the need for bat surveys. The current hedgerows on Site are being improved through infilling and new hedgerows and line of trees are proposed to be planted which will result in an increase of commuting habitat for bats within the Site and wider area.

Other enhancements within the Site for bats include the creation of wildflower rich grassland mix species within the Site will enhance the habitat for bat foraging by enhancing the habitat for invertebrates resulting in an increased food source. Bat roosting habitat will also be increased within the Site with six bat boxes proposed to be installed.

Birds

The habitats on Site provide nesting space for a range of bird species during the breeding season. The hedgerows and trees on Site support a range of nesting farmland birds including linnet, white throat and yellowhammer and other confirmed breeding species utilizing the boundary features or within the buffer include species such as dunnoek, moorhen, chiffchaff and black cap.

The arable habitat within the Site supported a total of 34 breeding skylark territories. The construction phase has the potential to temporarily disturb breeding ground nesting birds if present, and may cause them to abandon their nest. However, it is possible that the current baseline agricultural practices could also have this effect if they were timed in the breeding season. It is likely that the cessation of agricultural practices post-development and appropriate habitat management will improve the suitability of the Site for nesting birds.

Whilst barn owls were not recorded in the surveys, records were returned from the record search from HBIC. The field margins and rougher areas on the golf course could provide suitable foraging habitat, and this will be retained.

It is therefore important that any vegetation clearance works, or any other works that could potentially disturb nesting birds, avoids the bird breeding season (typically March to August inclusive). If this is

not possible, then a nesting bird check should be carried out prior to the work commencing within an area. If an active nest is found then a suitable buffer will be set up around it and works in that buffer area would have to be delayed until the young have fledged and are no longer dependent on the nest. Ideally, the Site should be designed in a way that retains nesting bird habitat, such as hedgerows and trees.

It is not considered there will be impacts to passerine birds or non-ground nesting birds as the hedgerows and boundary features will be retained, with only the arable fields being lost to the development. There will be an increase in nesting opportunities within the Site with the planting of new hedgerows, gapping of existing hedgerows, line of tree planting, native woodland planting and the installation of six bird boxes throughout the Site.

A skylark mitigation plot is proposed to be provided as part of the development to offer mitigation for the loss of confirmed skylark breeding territory. This should be managed as per the GOV UK guidance⁴. It is also recommended that the hedgerows are enhanced through the planting of trees which will provide additional nesting bird habitats.

Invertebrates

The dominant arable habitats on the Site are common and widespread and unlikely to support a wide range of invertebrate species of importance. HBIC returned numerous records of notable invertebrate species within 2 km of the Site.

Hedgerow habitats are likely to be of comparatively greater value than the arable habitats, although this will depend on crop type and farming regime. The arable habitats are to be lost as part of the proposed development, and with the move away from more intensive farming techniques it is unlikely that there will be long-term negative impacts on invertebrate species.

The planting of wildflower rich grassland mix around the field margins and grassland under the solar panel array will further enhance the Site for these species groups.

Other Mammals

Free movement to/from the Site for protected mammal species should be maintained via the inclusion of small gaps at the base of any surrounding security fencing.

The Proposed Development will provide more opportunities for other mammals within the Site through the planting of wildflower grassland around the field margins and grassland under the solar panel array. The enhancement of the current hedgerows through in filling and creation of new hedgerows will increase suitable habitats for harvest mouse.

Non-Native Invasive Species

The data search returned three records of Japanese knotweed from 2015, including one record located adjacent to the north west of the Site, however, no non-native invasive species were identified on-site during the survey. If this species is found to have encroached onto the Site then appropriate biosecurity measures should be put in place to prevent its spread.

⁴ <https://www.gov.uk/countryside-stewardship-grants/skylark-plots-ab4>

6. Conclusions

A preliminary ecological appraisal report was undertaken to help inform the potential impacts of the proposed works at the Proposed Development.

The available information confirms that no statutory or non-statutory nature conservation designations are present within or adjacent to the Site, and none of the designations within the surrounding area are likely to be adversely affected by development at the Site.

A number of potential ecological constraints have been identified including:

- On site habitats;
- Amphibians and reptiles;
- Birds;
- Bats;
- Badgers and other mammals; and
- Invertebrates

The habitats on the Site are generally of limited ecological value and are typically widespread in the wider area, whilst more ecologically value habitats including hedgerows and trees will be retained. Any habitat losses are being offset through habitat creation and habitat enhancement, as detailed within the BNG report.

The habitats within the site support several protected species. Accordingly, a number of mitigation measures have been proposed to minimise the risk of harm to protected species, with compensatory and enhancement measures proposed, where appropriate, in order to maintain the conservation status of local populations.

Due to the limited impact of the Proposed Development and the mitigation measures set out in this Chapter, the Proposed Development complies with both national and local planning policy, as set out in Section 2.

In conclusion, the Proposed Development has sought to minimise impacts and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the Proposed Development will result in significant harm to biodiversity.

7. References

Basingstoke and Deane Borough Council (2011). Local Plan (adopted 2016).

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

Collins J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

English Nature (2001). Great Crested Newt Mitigation Guidelines. English Nature.

Gilbert G, Gibbons D and Evans J (1998). Bird Monitoring Methods. RSPB

Harris S, Cresswell P and Jefferies D (1989) Surveying Badgers, Mammal Society.

UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)

8. Figures

Figure 1: Baseline UKHab Results

Figure 2: eDNA and HSI Results

Figure 3: Breeding Bird Survey Results 2024 - Overview

Figure 4: breeding Bird Survey Results 2024 - Skylarks

Appendices



Appendix A. Non Statutory Sites

Table 10: Details of Road Verges of Ecological Importance (RVEIs) within the search area

RVEI Reference	RVEI Name	NGR	Description	Interest Features	Management required	Length (m)
RV048	A340 Aldermaston Road	SU 6136 5804	Both sides of Aldermaston road west of Holly bush Copse and Newlands Copse	Chalk Flora <i>Cichorium intybus</i> (Chicory), <i>Epipactis</i> sp, 5 indicator species	Late September cut	515
RV049	A340 West End, Sherborne St John	SU 6190 5639	Both sides of West End, north of Sherborne St John village	Lowland Meadow/Marsh Flora <i>Lathyrus nissolia</i> (Grass vetchling)	Late September cut	248
RV115	A339 Ringway North, Basingstoke SINC	SU 6201 5331	Southern verge of Newbury Road roundabout, south of North Hampshire Hospital	Lowland Meadow/Marsh Flora Hungarian brome, chalky elements to the flora	April and Late September cut	84

Table 11: Details of Sites of Importance for Nature Conservation (SINCs) within the search area

Map Label	SINC Ref	SINC Name	Central Grid Ref.	SINC Criteria	Species supported that meet Section 6 of SINC Selection Criteria	Area (ha)
1	BD0450	Lower Farm Wood	SU59005680	1B		1.83
2	BD0456	Wootton Copse	SU59405270	1A		11.18
3	BD0458	Hutchins Copse	SU59505650	1A		3.28
4	BD0459	Gully, Withers, Six Acre Copses & Outlier	SU59505740	1A/1Cii		10.52
5	BD0464	Buttermead Copse	SU59705640	1A/6A	Hazel dormouse	2.27
6	BD0465	Privett, Privett Green & Highpath Copses	SU59805670	1A/6A	Hazel dormouse	7.34
7	BD0466	Charter Alley Copse	SU59805740	1A/1Cii		2.50
8	BD0471	Crooked Row Copse	SU59905640	1A		1.11
9	BD0821	Green Lane South of Worting Wood	SU59925248	1A		0.37
10	BD0472	Worting Wood	SU60005290	1A/6A	Hazel dormouse	10.46
11	BD0477	Drunken Pightle Copse Complex	SU60205660	1A		6.76
12	BD0482	Kiln Green Wood	SU60435627	1A		0.66
13	BD0486	Grove Croft Copse	SU60705750	1A/6A	Greater chickweed	14.12
14	BD0490	Copyhold	SU61105670	1A/1Cii		1.46
15	BD0493	Monk Sherborne Wood	SU61505680	1A/1B		59.00
16	BD0496	A339 Trumpet Junction	SU61805340	6A	White helleborine	4.23
17	BD0497	Bottom Copse, Sherborne St. John	SU61805740	1A/1Cii		2.60
18	BD0498	Newlands, Holly Bush & Pamberend Gully Copses	SU61805820	1A/1B/1Ci i		22.02
19	BD0811	Park Prewett School	SU61975423	6A	White helleborine	0.58
20	BD0501	A339 Ringway North, Basingstoke	SU62005330	2D		0.06
21	BD0504	Cranes Copse North	SU62105740	1A/1Cii		14.76
22	BD0506	Sherborne St John Meadows	SU62255550	5B		0.45

Map Label	SINC Ref	SINC Name	Central Grid Ref.	SINC Criteria	Species supported that meet Section 6 of SINC Selection Criteria	Area (ha)
23	BD0508	Cranes Copse South	SU62305720	1A/1Cii		5.56
24	BD0510	Edgerton's Wood	SU62405630	1A		2.93
25	BD0526	Morgaston Wood	SU63005700	1A/1B/6A	Silver-washed fritillary, drab looper, Welsh poppy.	63.03
26	BD0772	Basing Forest 14, Kiln Farm Spreads	SU63285535	1B		0.74
27	BD0540	Basing Forest Spier's Copse	SU63455555	1A/1B		22.95

Appendix B. Existing Bird Records

Table 12: Bird records within 2 km of the Site

Scientific name	Common name
<i>Recurvirostra avosetta</i>	Avocet
<i>Branta leucopsis</i>	Barnacle Goose
<i>Phoenicurus ochruros</i>	Black Redstart
<i>Chlidonias niger</i>	Black Tern
<i>Chroicocephalus ridibundus</i>	Black-headed Gull
<i>Limosa limosa</i>	Black-tailed Godwit
<i>Fringilla montifringilla</i>	Brambling
<i>Cettia cetti</i>	Cetti's Warbler
<i>Regulus ignicapilla</i>	Common Firecrest
<i>Mergus merganser</i>	Common Merganser
<i>Emberiza schoeniclus</i>	Common Reed Bunting
<i>Charadrius hiaticula</i>	Common Ringed Plover
<i>Sterna hirundo</i>	Common Tern
<i>Emberiza calandra</i>	Corn Bunting
<i>Cuculus canorus</i>	Cuckoo
<i>Numenius arquata</i>	Curlew
<i>Upupa epops</i>	Eurasian Hoopoe
<i>Alauda arvensis</i>	Eurasian Skylark
<i>Burhinus oedicephalus</i>	Eurasian Stone-curlew
<i>Larus argentatus</i>	European Herring Gull
<i>Pernis apivorus</i>	European Honey Buzzard
<i>Turdus pilaris</i>	Fieldfare
<i>Spatula querquedula</i>	Garganey
<i>Pluvialis apricaria</i>	Golden Plover
<i>Accipiter gentilis</i>	Goshawk
<i>Larus marinus</i>	Great Black-backed Gull
<i>Podiceps cristatus</i>	Great Crested Grebe
<i>Tringa ochropus</i>	Green Sandpiper
<i>Tringa nebularia</i>	Greenshank
<i>Ardea cinerea</i>	Grey Heron
<i>Perdix perdix</i>	Grey Partridge
<i>Motacilla cinerea</i>	Grey Wagtail
<i>Coccothraustes coccothraustes</i>	Hawfinch
<i>Falco subbuteo</i>	Hobby
<i>Passer domesticus</i>	House Sparrow
<i>Alcedo atthis</i>	Kingfisher
<i>Vanellus vanellus</i>	Lapwing
<i>Larus fuscus</i>	Lesser Black-backed Gull
<i>Acanthis cabaret</i>	Lesser Redpoll
<i>Dryobates minor</i>	Lesser Spotted Woodpecker
<i>Linaria cannabina</i>	Linnet
<i>Egretta garzetta</i>	Little Egret
<i>Charadrius dubius</i>	Little Ringed Plover
<i>Asio otus</i>	Long-eared Owl

Scientific name	Common name
<i>Poecile palustris</i>	Marsh Tit
<i>Ichthyaetus melanocephalus</i>	Mediterranean Gull
<i>Falco columbarius</i>	Merlin
<i>Turdus viscivorus</i>	Mistle Thrush
<i>Luscinia megarhynchos</i>	Nightingale
<i>Caprimulgus europaeus</i>	Nightjar
<i>Falco peregrinus</i>	Peregrine
<i>Aythya ferina</i>	Pochard
<i>Coturnix coturnix</i>	Quail
<i>Loxia curvirostra</i>	Red Crossbill
<i>Milvus milvus</i>	Red Kite
<i>Phoenicurus phoenicurus</i>	Redstart
<i>Turdus iliacus</i>	Redwing
<i>Turdus torquatus</i>	Ring Ouzel
<i>Tadorna ferruginea</i>	Ruddy Shelduck
<i>Calidris pugnax</i>	Ruff
<i>Riparia riparia</i>	Sand Martin
<i>Tadorna tadorna</i>	Shelduck
<i>Asio flammeus</i>	Short-eared Owl
<i>Spatula clypeata</i>	Shoveler
<i>Spinus spinus</i>	Siskin
<i>Mergellus albellus</i>	Smew
<i>Gallinago gallinago</i>	Snipe
<i>Plectrophenax nivalis</i>	Snow Bunting
<i>Turdus philomelos</i>	Song Thrush
<i>Muscicapa striata</i>	Spotted Flycatcher
<i>Sturnus vulgaris</i>	Starling
<i>Anthus trivialis</i>	Tree Pipit
<i>Streptopelia turtur</i>	Turtle Dove
<i>Rallus aquaticus</i>	Water Rail
<i>Tyto alba</i>	Western Barn Owl
<i>Circus aeruginosus</i>	Western Marsh Harrier
<i>Pandion haliaetus</i>	Western Osprey
<i>Motacilla flava</i>	Western Yellow Wagtail
<i>Oenanthe oenanthe</i>	Wheatear
<i>Saxicola rubetra</i>	Whinchat
<i>Poecile montanus</i>	Willow Tit
<i>Tringa glareola</i>	Wood Sandpiper
<i>Phylloscopus sibilatrix</i>	Wood Warbler
<i>Scolopax rusticola</i>	Woodcock
<i>Spinus spinus</i>	Woodlark
<i>Mergellus albellus</i>	Yellowhammer

Appendix C. HSI 2024 Results

Table 13: HSI Results

Pond	HSI score	Rating
P1	0.79	Good
P2	0.53	Below Average
P3	0.88	Excellent
P4	0.50	Below Average
P5	0.79	Good

Appendix D. eDNA Results

Folio No: 1809-2024
Purchase Order: 7315
Contact: Atmos Consulting Ltd
Issue Date: 17.06.2024



GCN eDNA Analysis

Summary

When great crested newts (GCN), *Triturus cristatus*, inhabit a pond, they continuously release small amounts of their DNA into the environment. By collecting and analyzing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

Results

Lab ID	Site Name	OS Reference	Degradation Check	Inhibition Check	Result	Positive Replicates
GCN 0856	Monk Sherbourn - P4		Pass	Pass	Negative	0/12
GCN 0871	Monk Sherbourn - P2		Pass	Pass	Negative	0/12
GCN 0859	Monk Sherbourn - P1		Pass	Pass	Negative	0/12
GCN 0832	Monk Sherbourn - P5		Pass	Pass	Negative	0/12
GCN 0441	Monk Sherbourn - P3		Pass	Pass	Negative	0/12

Matters affecting result: none





Reported by: Lauryn Jewkes





Approved by: Christopher Troth

Appendix E. Target Notes and Site Photos

Table 14: Target Notes and Site Photos

Target Note	Site Photo
Example of cereal crop planted within the Site.	
Example of non-cereal crop planted within the Site.	
Example of hedgerows bounding the fields throughout the Site.	

Target Note	Site Photo
Example of hedgerows running along the grid connection.	
Example of the woodland within the area of the grid connection.	
Outlier badger sett within the Site used by rabbits at the time of the survey (TN2).	
Outlier badger sett within the Site used by rabbits at the time of the survey (TN3).	

Target Note	Site Photo
<p>Pond 1 located off Site in Weybrook Park Golf Club. A medium sized pond with aquatic vegetation consisting of water lily <i>Nymphaeaceae sp</i> marginal vegetation consisting of bullrush <i>Typha latifolia</i>, yellow flag iris <i>Iris pseudacorus</i>. The vegetation western side of the pond had a short sward and the vegetation to the east was a long unmanaged areas with species consisting of Yorkshire fog <i>Holcus lanatus</i>, meadow grass, ragwort <i>Jacobaea vulgaris</i>, scattered bramble, thistle, nettles and white clove <i>Trifolium repens</i>.</p>	
<p>Pond 2 located off Site in Weybrook Park Golf Club. A medium sized pond which was downstream to Pond 1 with aquatic vegetation consisting of water lily and marginal vegetation consisted of yellow flag iris and bullrush. The banks were vertical and approximately 30 cm deep with 25% of the pond adjacent to long rough grassland consisting of Yorkshire fog, meadow foxtail <i>Alopecurus pratensis</i>, bristly oxtounge <i>Helminthotheca echioides</i>, common bent <i>Agrostis capillaris</i>, thistle and common sedge <i>Carex nigra</i>.</p>	
<p>Pond 3 located off Site in Weybrook Park Golf Club. A smaller sized pond with half of the pond adjacent to the golf green and the other half adjacent to rough grassland and hedge. The aquatic vegetation consisted of water lily and the marginal vegetation bullrush, yellow flag iris, water mint <i>Mentha aquatica</i>, pendula sedge and common sedge <i>Carex pendula</i>.</p>	
<p>Pond 4 located off Site in Weybrook Park Golf Club. A large sized elongated pond with no aquatic vegetation present and marginal vegetation in limited areas consisting of yellow flag iris, bullrush and water mint. Approximately 60% of the pond is adjacent to the golf green and the remaining area adjacent to an unmanaged area dominated by bramble.</p>	

Target Note	Site Photo
<p>Pond 5 located off Site in Weybrook Park Golf Club. A large pond with a number of moorhens, Canada geese and swans. There was no aquatic vegetation present and marginal vegetation consisted of bullrush, common sedge, Yorkshire fog and water mint. The bank was shallow with a very cropped vegetative sward.</p>	