

BLADE

PRELIMINARY ECOLOGICAL APPRAISAL (INCLUDING 2KM THIRD-PARTY DATA SEARCH)

LAND NORTH OF ORTON ROAD, WARTON,
TAMWORTH, NR B79 0JG

ON BEHALF OF

MICHAEL ENSOR CATON & ANDREW NORMAN
CATON C/O RICHBOROUGH

FEBRUARY 2025

V3

BIODIVERSITY
LANDSCAPE
ARBORICULTURE
DESIGN
ECOLOGY

NORTH WARWICKSHIRE BOROUGH COUNCIL
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Client	Michael Ensor Caton & Andrew Norman Caton c/o Richborough
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1.0 EXECUTIVE SUMMARY

- 1.1 A Preliminary Ecological Appraisal (including 2km data search) was undertaken of the land off Orton Road, Warton on 27 January 2025. The survey was completed by E. Seaton BSc (Hons) MCIEEM in accordance with the Preliminary Ecological Appraisal Guidelines (CIEEM, 2017 2nd Edition) and the UK Habitat Classification system (UK Habitat Classification Working Group (2023)).
- 1.2 The site is 6.37ha in area and comprises arable land, a pond associated with willow scrub and developed land. Species-rich hedgerows form the boundaries of the site
- 1.3 Planning consent is being sought from North Warwickshire Borough Council for *'outline planning for the construction of up to 110 dwellings, with access, landscaping, sustainable drainage features, and associated infrastructure. All matters are reserved except for primary vehicular access from Church Road'*
- 1.4 This report has been based on the Framework Plan (RG-M-Ai02, Revision M) produced by Stantec.

Further Survey Work Required

- 1.5 Great crested newt surveys will be required of the ponds (P1-3) identified within 250m of the application site (see Figure 2 Pond Plan) subject to suitability. The ponds may be sampled utilising the environmental DNA (eDNA) technique approved by Natural England (Biggs, 2014). Water samples must be collected by appropriately licensed personnel between 15 April and 30 June, to comply with current survey guidelines. If any ponds are confirmed to support great crested newts, a population class assessment will need to be undertaken to inform a future Natural England development licence (if required). Population class assessments involve six visits being carried out between mid-March and mid-June with at least three visits occurring between mid-April and mid-May to estimate population size.
- 1.6 Alvecote Pools (SSSI) located c.1.9km north-west supports a regionally important bird community, with over 100 species recorded annually and between 60 to 70 species breeding on-site. A breeding bird scoping survey is therefore required to assess bird activity and any initial impacts on the ornithological importance of the site, based on the methods described by Fuller (1980). Survey methods will be derived from the Common Bird Census (CBC) territory mapping method devised by the British Trust for Ornithology (BTO) (Marchant, 1983). The survey should be completed in March. NOTE: further surveys (up to a total of six) may be required to be spaced evenly during the main breeding bird season (March to early July) in line with current guidance (RSK Biocensus, 2021).
- 1.7 Following the pre-app (dated 12 March 2025); reporting badger mitigation forming part of the adjacent Bellway Cornfields residential development to the east; a badger walkover survey will be required of on-site habitats and those within 30m to assess the impacts on this species. If a potential sett is identified, further monitoring will be required to confirm sett type and activity.

- 1.8 A Biodiversity Net Gain (BNG) calculation is required to address the impact of the development on biodiversity.

Further Survey Work Required (if proposals are amended).

- 1.9 If any mature trees are to be removed or subject to post-development light spill, a ground level tree assessment (GLTA) will be required to determine the bat roosting suitability of any trees. Should suitability be confirmed, further survey work (e.g., tree climbing assessment or nocturnal survey work) will be required to confirm the presence / absence of roosting bats.
- 1.10 If light spillage on potential bat foraging routes (hedgerow boundaries) reaches more than 1lux at 2m above ground, further survey work will be required to assess bat activity throughout the season. This would comprise a night-time bat walkover (NBW) on a seasonal basis (Spring – April/May; Summer – June/July/August; Autumn – September/October) supported by automated detector surveys on a monthly basis (April – October inclusive). Should lighting impacts be unclear, an Isolux plan showing the extent of the habitat features (spread of tree / hedgerow canopy), position of any lighting columns, light spill and 1, 2 and 5lux levels at 2 metres above ground should be submitted to support the application.
- 1.11 The site should be maintained as per the conditions of this survey. If a change in management leads to a change in habitat conditions, then this survey must be updated, and additional survey work may be required. As a precaution, an update site walkover should be carried out if more than eighteen months have elapsed between the date of this survey and the start of the development.

Construction Environment Management Plan (CEMP)

- 1.12 Notwithstanding the results of the further survey work, a Construction Environment Management Plan (CEMP) should be written and agreed with the Local Planning Authority (LPA). The strategy will focus on retaining existing habitats of ecological value and minimising the impacts of construction on nearby designated sites and protected / notable species. The below may form key components of the strategy:
- Measures to minimise impacts (e.g. noise, dust etc.) to surrounding sites.
 - Risk Avoidance Method Statement (RAMS) for protected species and their habitats (subject to further survey work).
 - Removal of potential bird nesting habitat (where required to facilitate permitted development), is to be undertaken outside the bird nesting season (March – August inclusive) or otherwise under the direct supervision of a suitably qualified ecologist.
 - Pre-commencement check for badger setts to ensure full compliance with The Protection of Badgers Act, 1992.

- Retention of mature hedgerows and trees. All retained trees and hedgerows should be afforded adequate protection in line with '*BS5837: 2012 Trees in relation to design, demolition and construction*'.
- Implementation of a sensitive lighting strategy during construction to prevent illumination of wildlife habitats (hedgerows, trees). Any lighting must be low level and of the minimum wattage, as recommended by the Bat Conservation Trust (BCT) & Institute of Lighting Professionals (2023).

Landscape and Ecological Management Plan (LEMP)

1.13 Notwithstanding the results of the further survey work, a Landscape and Ecological Management Plan (LEMP) should be written and agreed with the Local Planning Authority (LPA). The plan will detail how the post-developed landscape will be managed and how the scheme will identify and pursue measurable net gains for biodiversity and ensure compliance with local and national Government policies (e.g., National Planning Policy Framework). The below will form key components of the strategy:

- Implementation of a hedgehog friendly habitat connectivity strategy, connecting urban garden habitats to each other and the wider environment.
- Provision of a range of wildlife boxes and hibernacula (e.g., bat, bird, reptile) to provide further enhancement for these species.
- New planting and landscaping design to provide foraging and nesting opportunities for a range of wildlife. Use of native species of local origin with a known benefit to wildlife to be incorporated into the planting scheme.

2.0 INTRODUCTION

Background to the Development

- 2.1 BLADE Ecology Ltd. was commissioned by Michael Ensor Caton & Andrew Norman Caton c/o Richborough to undertake a Preliminary Ecological Appraisal at the land north of Orton Road, Warton (centred on Ordnance Survey grid reference SK 279 033).
- 2.2 The site is approximately 6.37ha in area and comprises arable land and a pond associated with willow scrub. Species-rich hedgerows form the boundaries of the site.
- 2.3 The application site boundary is shown in Figure 1.



Figure 1: Application Site Boundary

- 2.4 Planning consent is being sought from North Warwickshire Borough Council for *'outline planning for the construction of up to 110 dwellings, with access, landscaping, sustainable drainage features, and associated infrastructure. All matters are reserved except for primary vehicular access from Church Road'*
- 2.5 This report has been based on the Framework Plan (RG-M-Ai02, Revision M) produced by Stantec.

Survey Objectives

- 2.6 The objectives of the survey were to:
- Undertake a Preliminary Ecological Appraisal (PEA) of the site to identify any suitability for protected / notable species and identify habitats or features of nature conservation significance;

- Identify the need for any additional Phase 2 surveys that may be required to inform an Ecological Impact Assessment (EclA);
- Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy'.
- Identify opportunities for post-development biodiversity enhancement to ensure compliance with local and national Government policies (e.g. NPPF).

3.0 PLANNING POLICY AND LEGISLATION

National Planning Policy

National Planning Policy Framework (NPPF)

- 3.1 The National Planning Policy Framework (NPPF) (Department for Levelling Up, Housing & Communities, 2024) provides guidance for Local Planning Authorities (LPAs) in creating development plans and determining applications.
- 3.2 Section 8 states that Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):
- a) an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
 - b) a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
 - c) an environmental objective – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.
- 3.3 Section 151 states that once Green Belts have been defined, local planning authorities should plan positively to enhance their beneficial use, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land.
- 3.4 Section 187 states that planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with the statutory status or identified quality in the development plan);
 - b) recognising intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

3.5 Section 188 states that plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental value or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

3.6 Section 185 states that in order to protect biodiversity, plans should:

- identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of internal, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

3.7 Section 189 states that great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and National Landscapes which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.

3.8 Section 190 states that when considering applications for development within National Parks, the Broads and National Landscapes, permission should be refused for major

development⁶ other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
- b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and
- c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

3.9 Section 191 states that within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 189), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.

3.10 Section 192 states that to protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

3.11 Section 193 states that when determining planning authorities should apply the following principles:

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
 - development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.
- 3.12 Section 194 states that the following should be given the same protection as habitats sites:
- potential Special Protection Areas and possible Special Areas of Conservation;
 - listed or proposed Ramsar sites; and
 - sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.
- 3.13 Section 195 states that the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects) unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.
- 3.14 Section 33 states that local plans and spatial development strategies should be informed throughout their preparation by a sustainability appraisal that meets the relevant legal requirements. This should demonstrate how the plan has addressed relevant economic, social and environmental objectives (including opportunities for net gains). Significant adverse impacts on these objectives should be avoided and, wherever possible, alternative options which reduce or eliminate such impacts should be pursued. Where significant adverse impacts are unavoidable, suitable mitigation measures should be proposed (or, where this is not possible, compensatory measures should be considered).

Local Planning Policy

North Warwickshire Local Plan 2021

- 3.15 LP16 Natural Environment: The Borough Council recognises the importance of the natural environment to the Borough's local character, identity and distinctiveness. The quality, character, diversity and local distinctiveness of the natural environment will be protected and enhanced as appropriate relative to the nature of development proposed. This policy seeks to minimise impacts on, and provide net gains for biodiversity, where possible, relative to the ecological significance of international, nationally and locally designated sites of importance for biodiversity.

- 3.16 Understanding the Natural Environment: All development applications that affect the natural environment will be required to provide sufficient information and an assessment of those proposals on the natural asset(s) including via Appropriate Assessment under Regulation 63 of the Conservation of Habitats and Species Regulations 2017, or successor legislation, where likely significant effects individually or in combination with other schemes cannot be ruled out.
- 3.17 Conserving the Natural Environment: Sites of Special Scientific Interest (SSSI's) will be subject to a high degree of protection, in view of their national importance. Development adversely affecting a SSSI will only be permitted where the benefits of the development at these sites clearly outweigh the likely impacts on the site and any broader impacts on the national network of SSSI's.
- 3.18 Development that affects Sites of Regional and Local Importance for Nature Conservation will only be permitted where the benefits of the development outweigh the nature conservation value of the site and the contribution it makes to the Borough's ecological network.
- 3.19 Development that damages habitats and features of importance for nature conservation will only be permitted where there are no reasonable alternatives to the development taking place in that location. Where appropriate, developments will be required to help enhance these features and/or secure their beneficial management.
- 3.20 Planning permission will be refused if development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss. Given the natural heritage of the Borough, the Council expects such circumstances to be wholly exceptional and for there to be a suitable compensation strategy in place where any loss or deterioration would occur.
- 3.21 Developments should avoid significant harm to biodiversity by locating to an alternative site with less harmful impacts. If this is not possible adequately mitigate the impacts or, as a last resort compensate the loss. Where development takes place, it should help ensure there is a measurable net gain of biodiversity and geological interest. Warwickshire, Coventry and Solihull Biodiversity Impact Assessment calculator will be used to assess the changes to biodiversity resulting from the development and Biodiversity Offsetting will be used where net gain cannot be achieved within the site boundary. Offsets will be sought towards enhancements of the wider ecological network in the Borough or sub-region in line with local, regional and national priorities for nature conservation.
- 3.22 A minimum buffer zone of 15m will be required in line with Government Guidance for ancient woodland and individual ancient or veteran trees. The size and type of buffer zone should vary depending on the scale, type and impact of the development and the sensitivity of the natural asset(s) that may be affected based on proportionate evidence.

- 3.23 Where possible, a buffer zone should:
- contribute to wider ecological networks
 - be part of the green infrastructure of the area
- 3.24 Encouragement will be given to the planting of street trees, wherever possible.

Legislation

Habitats and Species of Principal Importance

- 3.25 The NERC Act, 2006 requires the Secretary of State to publish lists of habitats and species which are of principal importance for the conservation of biodiversity in England, Wales and Scotland. The lists replace the UK Biodiversity Action Plans (UK BAP) and have been drawn up in consultation with Natural England, Natural Resources Wales and Scottish Natural Heritage as required by the Act. Section 7 of the Environment (Wales) Act, 2016 has now replaced the duty in section 41 of the NERC Act in relation to Wales, with a duty on public authorities to seek to maintain and enhance biodiversity. The lists are used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of NERC Act and section 7 of the Environment (Wales) Act, 2016, to have regard to the conservation of biodiversity when carrying out their normal functions.
- 3.26 Habitats of principal importance (HPI) are included on the lists. These are all the habitats in England, Wales and Scotland that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.
- 3.27 Species of principal importance (SPI) are included on the lists. These are the species found in England, Wales and Scotland which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.

Biodiversity Action Plan (BAP) Habitats and Species

- 3.28 The UK Biodiversity Action Plan (HMSO 1995, 1998; UKBAP 2007) lists species and habitats which have undergone significant declines in recent years and for which conservation is a priority in order to preserve biodiversity in the UK. The BAPs provide a list of actions to be implemented to halt or reverse these declines. These species and habitats are identified as Habitats and Species of Principal Importance for the conservation of biological diversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act, planning policy and underpinning guidance (ODPM, 2005)

Great Crested Newt

- 3.29 The great crested newt is a 'European Protected Species' and is listed on both Annex II and IV of the EC Habitats Directive. The Directive is transposed into UK law through the Conservation of Habitats and Species Regulations 2017. They are also protected by the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of

Way Act 2000. These pieces of legislation combine to give substantial protection to great crested newts and their breeding ponds and terrestrial habitat, making it an offence to:

- Deliberately capture, injure or kill a great crested newt;
- Intentionally or recklessly disturb a great crested newt in a structure or place that they use for shelter or protection or deliberately disturb a group of a great crested newts;
- Damage or destroy a great crested newt resting place/shelter (even if they are not occupying it at the time);
- Possess or advertise/sell/exchange a great crested newt (dead or alive) or any part of a great crested newt (including eggs and all life-stages);
- Intentionally or recklessly obstruct access to a great crested newt resting place/shelter.

Common Reptiles

3.30 In Britain there are four relatively widespread native species of reptile: the adder; grass snake common lizard and slow worm. These species are protected via part of Section 9(1) of the Wildlife & Countryside Act 1981 (as amended) against:

- Intentional killing and injuring;
- Selling, offering or exposing for sale.

3.31 Two other species of reptile: the sand lizard and smooth snake are 'European Protected Species'. It is illegal to injure, kill, disturb, capture, keep or sell them, or to damage or destroy the habitats in which they live.

Nesting Birds

3.32 Wild birds within the UK are primarily protected by the Wildlife & Countryside Act (WCA) 1981 (as amended by the Countryside & Rights of Way Act 2000). The WCA is the UK's domestic legislation which incorporates the legislation outlined in the European Community Council Directive 79/409/EEC on the Conservation of Wild Birds, more commonly known as the 'Birds Directive' – the oldest EU legislation on the environment. The Birds Directive provides legal guidance for the management and conservation of wild birds within member states. This legislation states that all birds, their nests and eggs are protected by law, and it is illegal to (subject to exception) to recklessly or intentionally:

- Kill, injure or take any wild bird;
- Take, damage or destroy the nest of any wild bird while in use or being built;

- Take or destroy the egg of any wild bird.
- 3.33 A total of 193 species of bird are identified with Annex 1 of the Birds Directive. These species are:
- in danger of extinction;
 - vulnerable to specific changes in their habitat;
 - considered rare because of small populations or restricted local distribution;
 - requiring particular attention for reasons of the specific nature of habitat.
- 3.34 Habitats and important sites for species found on Annex 1 of the Birds Directive are safeguarded by the designation of Special Protected Area (SPA) status. SPAs are protected through the implementation of the Conservation of Habitats and Species Regulations 2012 (The Conservation Regulations). Ramsar sites (wetlands of international importance designated under the Ramsar convention) are also protected by the Conservation Regulations, which was amended in 2012 to enhance provision for the preservation, maintenance and enhancements of habitats for wild birds in the UK.
- 3.35 Species listed on the Schedule 1 of the Wildlife & Countryside Act (as amended), are offered greater levels of protection, whereby it is an offence to intentionally disturb adult birds engaged in nest building and during nest occupation, as well as the intentional disturbance of dependent young.
- 3.36 A further 49 species of bird are also protected by Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC S.41). These species have been identified due to their importance to nature conservation.

Bats

- 3.37 All species of bat in Britain are 'European Protected Species' and are protected under the Conservation of Habitats and Species Regulations 2017, and the Wildlife and Countryside Act 1981, as amended by the Countryside & Rights of Way Act 2000. These pieces of legislation combine to give substantial protection to bats and their habitats, making it an offence to:
- Deliberately capture, injure or kill a bat;
 - Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
 - Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
 - Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat;

- Intentionally or recklessly obstruct access to a bat roost.

Badger

3.38 Badgers are protected in the UK under the Protection of Badgers Act (1992), making it an offence to:

- Kill, injure or take a badger;
- Intentionally or recklessly interfere with a badger sett. Sett interference includes damaging, destroying or obstructing access to a sett and disturbing badgers while they occupy a sett.

Hazel Dormouse

3.39 The hazel dormouse is a 'European Protected Species' and is fully protected under national and European legislation. It is listed on Annex IVa of the Habitats Directive and the Directive is transposed into UK law through the Conservation of Habitats and Species Regulations 2017. They are also protected by the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000. Dormice are also listed as a Species of Principal Importance under the Natural Environment and Rural Communities (NERC) Act (2006). These pieces of legislation combine to give substantial protection to dormice and their habitat, making it an offence to:

- Intentionally kill, injure or take a dormouse;
- Possess or control any live or dead specimen or anything derived from a dormouse (unless it can be shown to have been legally acquired);
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a dormouse;
- Intentionally or recklessly disturb a dormouse while it is occupying a structure or place which it uses for that purpose.

Otter

3.40 The European otter is the only native UK otter species. It is a European protected species (EPS) and is also fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to:

- Capture, kill, disturb or injure otters (on purpose or by not taking enough care);
- Damage or destroy a breeding or resting place (deliberately or by not taking enough care);
- Obstruct access to their resting or sheltering places (deliberately or by not taking enough care);

- Possess, sell, control or transport live or dead otters, or parts of otters.

Water Vole

3.41 Water voles are protected in the UK under the Conservation of Habitats and Species Regulations, 2017 and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to:

- Intentionally kill, take or injure a water vole;
- Possess or control any live or dead water vole, or any part or derivative (not including water voles bred in captivity under licence);
- Intentionally or recklessly damage, destroy or block access to a water voles place of shelter or protection (on purpose or by not taking enough care);
- Intentionally or recklessly disturb a water vole whilst it is occupying a structure or place which it uses for shelter or protection (on purpose or by not taking enough care).

4.0 METHODOLOGY

Desk Study

- 4.1 Existing ecological and nature conservation data relevant to the site was collated from various sources including the Multi Agency Geographic Information for the Countryside (MAGIC) online database (<http://magic.defra.gov.uk>).
- 4.2 A 2km third-party data search was instructed by the client as part of this commission. This was a cross boundary search undertaken by Warwickshire Biological Record Centre and Leicestershire and Rutland Environmental Records Centre in February 2025. It should be noted that the absence of biological records for an area does not imply that taxa are not present.
- 4.3 A search of European statutory designated sites such as Special Areas of Conservation (SAC) and Special Protection Areas (SPA) within 10km of the site boundary was also undertaken.

Field Survey

- 4.4 The approach to ecological appraisal was based on the guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM) in the document Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017).

UK Habitat Classification Survey

- 4.5 A field survey was undertaken on 27 January 2025. The survey was completed by E. Seaton BSc (Hons) MCIEEM, in accordance with the Preliminary Ecological Appraisal Guidelines (CIEEM, 2017 2nd Edition) and the UK Habitat Classification system (UK Hab Ltd., 2023). This involved walking over the site, mapping the main habitat types and compiling target notes to identify particular areas of interest or concern. A minimum mapping unit of 25m² and 5 linear m was used, with anything smaller than this target noted. Plant species lists were also compiled.

Protected Species Survey

- 4.6 Observations on the presence, or potential presence, of other protected species (e.g., badgers, nesting birds, great crested newts) were recorded in addition to the Habitat Survey. This information should not be relied on as a comprehensive assessment of the presence or otherwise of all protected species on the site. There are a wide range of protected species, many of them can occur on one site and most require specialist expertise to locate them and / or seasonal-critical survey techniques to confirm their presence, and this is outside of the scope of the present report. Where suitability has been identified, further Phase 2 surveys have been recommended.

Habitat Suitability Index

- 4.7 The pond(s) was/were assessed utilising the great crested newt Habitat Suitability Index (HSI) (Oldham et. Al., 2000). The HSI score is used to define the suitability of the pond on a categorical scale, calculated by assigning a quantitative figure to each of ten

variables (e.g., pond area, water quality etc.) and then taking the tenth root to produce a score between 0 and 1.

Table 3: HSI Scores.

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

Limitations

- 4.8

The Preliminary Ecological Appraisal was undertaken in February 2024. This is not within the optimal survey period for most habitats and species in England (JNCC, 2010). Many plant species and faunal field signs become less evident during the winter period. However, a Preliminary Ecological Appraisal can be carried out at any time of year subject to appropriate weather conditions (CIEEM, 2017).
- 4.9

It should be noted that any survey based on a single site visit will miss a significant proportion of the species present on or using the site. As such this report includes an assessment of only the likely presence of notable species.

5.0 UK HABITAT CLASSIFICATION SURVEY

- 5.1 The results of the Habitat Classification Survey are presented below. A Habitat Map can be seen in Appendix A. Photographs that display some of the habitats can be seen in Appendix B.

Arable

- 5.2 The land is utilised for arable purposes. Crop production dominates the site excluding for a small area comprising a pond and willow scrub (see below)

Pond

- 5.3 A pond is situated at the north-east of the site. It is overshadowed by goat willow *Salix caprea* scrub with minimal aquatic vegetation present. Common nettle *Urtica dioica* dominates the banks.

Willow Scrub

- 5.4 A parcel of willow *Salix caprea* scrub surrounds and overshadows the pond. It reaches c. 4m in height with no other scrub species being recorded.

Hedgerows and Margins

- 5.5 Four hedgerows are present within the application site. A description of the hedgerows including associated margins (if present) is provided in Table 4.

Table 4: hedgerow description and species composition

Hedgerow Reference	Description
Hedgerow 1 (H1)	Hedgerow 1 runs along the southern section of the eastern boundary of the site. It is a new species-rich hedgerow comprising whip planting including hawthorn <i>Crataegus monogyna</i>, dogrose <i>Rosa canina</i>, dogwood <i>Cornus sanguinea</i>, blackthorn <i>Prunus spinosa</i>, and hazel <i>Corylus avellana</i>. It is recently established, reaching c.0.5m in height. Some existing bramble <i>Rubus fruticosus</i> and rowan <i>Sorbus aucuparia</i> are also present along this boundary. A c.1m vegetated margin is associated with this hedgerow, comprising cock's-foot <i>Dactylis glomerata</i>, red fescue <i>Festuca rubra</i>, cow parsley <i>Anthriscus sylvestris</i>, common nettle <i>Urtica dioica</i>, and dandelion <i>Taraxacum</i> spp,
Hedgerow 2 (H2)	Hedgerow 2 runs along the northern section of the eastern boundary. It is a species-rich hedgerow with trees reaching c.5m in height. Species recorded include hawthorn <i>Crataegus monogyna</i>, yew <i>Taxus baccata</i>, bramble <i>Rubus fruticosus</i>, dogrose <i>Rosa canina</i>, holly <i>Ilex aquifolium</i>, sycamore <i>Acer pseudoplatanus</i>, pedunculate oak <i>Quercus robur</i> (tree), and common beech <i>Fagus sylvatica</i>.
Hedgerow 3 (H3)	Hedgerow 3 runs along the north-western boundary. It is a species-rich hedgerow with trees comprising pedunculate oak <i>Quercus robur</i>, bramble <i>Rubus fruticosus</i>, holly <i>Ilex aquifolium</i>, dogrose <i>Rosa canina</i>, elder

	<i>Sambucus nigra</i> , and hawthorn <i>Crataegus monogyna</i> . A number of standing dead and fallen elm <i>Ulmus spp.</i> trees are also present. The hedgerow reaches approximately 5m in height.
Hedgerow 4 (H4)	Hedgerow 4 runs along the southern boundary and is a species-rich hedgerow with trees. It comprises elm <i>Ulmus spp.</i> , elder <i>Sambucus nigra</i> , hawthorn <i>Crataegus monogyna</i> , pedunculate oak <i>Quercus robur</i> , holly <i>Ilex aquifolium</i> , blackthorn <i>Prunus spinosa</i> , and aspen <i>Populus tremula</i> .

6.0 RESULTS

Designated Sites

Statutory Designated Sites

6.1 Eight statutory sites are present within 10km of the application site. These sites are listed below:

- Birches Barns Meadow (SSSI) located c.940m south.
- Alvecote Pools (SSSI) located c.1.9km north-west.
- Sheepy Fields (SSSI) located c.4.9km west.
- Kingsbury Wood (SSSI) located c.6.7km south-west
- Bentley Park Wood (SSSI) located c.6.9km south
- River Mease (SAC) located c.7.6km north.
- Hoar Park Wood (SSSI) located c. 10km south.
- Middleton Pool (SSSI) located c.10km south-west.

Non-Statutory Designated Sites

6.2 Twenty-two non-statutory sites were returned by the third-party data search within 2km of the application site. These sites are listed below:

- Dog Kennel Wood (Ecosite) located 1.6km South-east
- Woodside Farm Coppice (Ecosite) located 1.6km North-West
- High Royals Plantation (Ecosite) located 1.6km South
- The Rundberry & Roundberry Quarry (Ecosite) located 0.5km North-west
- The Bushes, Donative Farm SINC (Ecosite) located 0.8km North-west
- Hedgerow (Ecosite) located 1.7km South-east
- Polesworth Churchyard (Ecosite) located 1.5km South-west
- Lime Kiln Bridge Meadows (Ecosite) located 1.3km South-west

- Alvecote Pools Nature Reserve (Ecosite) located 1.4km North-west
- Polesworth Abbey Green Park (Ecosite) located 1.1km South-west
- Polesworth Abbey (Ecosite) located 1.2km South-west
- River Anker (Potential Site) located 0.9km South-west
- Alvecote Pools SSSI (Potential Site) located 1.6km North-west
- Lime Kiln Bridge Meadows (Potential Site) located 1.3km South-west
- Pooley Country Park Meadows (Potential Site) located 1.4km West
- Fields adjoining River Anker near Kisses' Barn (Potential Site) located 0.9km South
- Grendon House Farm Hedgerow (Potential Site) located 1.7km South-east
- Coventry Canal (Potential Site) located 1km South-west
- Pooley Country Park (LWS) located 1.5km West
- The Bushes, Donative Farm (LWS) located 0.8km North-west
- Polesworth Abbey Green Park (LWS) located 1.6km South-west
- Polesworth Abbey Marsh (LWS) located 1.1km South-west

Protected and Notable Species

Higher and Lower Plants

- 6.3 No protected and / or locally notable plant species have been recorded within the application site.

Invertebrates

- 6.4 A number of standing dead and fallen elm trees were recorded within Hedgerow 3 (H3) that may offer value for saproxylic invertebrates.
- 6.5 No triggers were identified to suggest that the habitats on-site support an interesting or notable assemblage of invertebrates.

- 6.6 Fifteen records of notable invertebrates have been recorded within 2km including cinnabar Moth, dingy skipper, dusky thorn, lesser yellow underwing, small heath, small square-spot, white-letter hairstreak and *Trechus quadristriatus*.

The closest record is for a small heath butterfly located 73 meters of the application site.

Great Crested Newts

- 6.7 A single pond (P1) is present on-site that may offer suitable breeding opportunity for great crested newts. A Habitat Suitability Index (HSI) Assessment (ARG, 2010) of the waterbody confirmed it to hold 'average' suitability to support great crested newts based on a score of 0.64.
- 6.8 Six further ponds (P2-P7) have been identified (via aerial and OS mapping) within 500m of the application site. Two of these ponds (P2 & P3) fall within 250m of the application site.



Figure 2: Ponds within 500m of the application site

- 6.9 No records of great crested newts have been returned on-site. The nearest record is located 1.5km south-west, in Polesworth Churchyard.

Reptiles

- 6.10 The site is arable and does not offer the structural heterogeneity to support a significant population of reptiles. The hedgerow margins may offer some very limited suitability for reptile species such as slow worm, common lizard and grass snake.
- 6.11 Three grass snake records have been returned within 2km of the application site. The nearest record has been returned 270m south-west.

Birds

- 6.12 Seven species of birds were seen and / or heard incidentally during the survey including two species (woodpigeon and starling) of conservation concern (Stanbury et al., 2021).

Table 5: bird species recorded at the land off Orton Road, Warton

Bird Species	Conservation Concern (Stanbury et al., 2021)
Woodpigeon <i>Columba palumbus</i>	Amber
Blue tit <i>Cyanistes caeruleus</i>	Green
European robin <i>Erithacus rubecula</i>	Green
Great tit <i>Parus major</i>	Green
Magpie <i>Pica pica</i>	Green
Starling <i>Sturnus vulgaris</i>	Red
Blackbird <i>Turdus merula</i>	Green

- 6.13 The extensive boundary hedgerows and trees on site offer a suitable nesting and foraging resource for birds. The species-rich hedgerows with fruiting species such as hawthorn and blackthorn offer over-winter foraging opportunities for frugivorous birds, such as redwings and fieldfare (Henderson, Vickery and Carter, 2004).
- 6.14 Alvecote Pools (SSSI) is located c. 1.9km north-west and partly designated due to its ornithological importance supporting a complex of open water, reedbeds, marsh, wet woodland and grassland. The site supports a variety of breeding, overwintering and migratory bird species including bittern *Botaurus stellaris* (a rare winter visitor), kingfisher *Alcedo atthis*, various wildfowl & waders such as teal, widgeon and snipe and passerines in the reedbeds including reed and sedge warblers.
- 6.15 Twelve records of notable bird species have been returned within 2km by the third-party data search including red kite, grey partridge, European green woodpecker, Eurasian wren, blackbird, song thrush and a lapwing. The nearest record is for a red kite located 277m north-east.

Bats

- 6.16 There are no buildings within the application site to support roosting bats. The arable nature of the site provides very limited value for bat species; however, the hedgerows and trees are likely to be of value for commuting and foraging bat species. Mature trees may also provide suitable roosting opportunities for bat species.
- 6.17 3 records of bats have been returned within 2km from the following species: Pipistrelle, Common Pipistrelle and Soprano Pipistrelle.

Badger

- 6.18 No signs of badger (e.g. setts, prints, snuffle holes) were recorded within the application site.
- 6.19 The flat, arable nature of the site is sub-optimal for sett building with sloped terrain providing good drainage, structural stability and natural cover typically being favoured (Neal & Cheesman, 1996).
- 6.20 No records of badgers have returned within 2km of the application site.

Hazel Dormouse

- 6.21 The species-rich and mature boundary hedgerows provide broadly suitable habitat for hazel dormice. However, as the hedgerows are fragmented by surrounding roads and development, they are highly unlikely to be able to support a viable population of this protected species.
- 6.22 Hazel dormice are an arboreal species and rely on continuous canopy cover to move safely between habitats with research suggesting at least 10-20 hectares of suitable habitat (e.g. interconnected hedgerows and woodland) is needed to support a small but sustainable dormouse population (Bright & Morris, 1990).
- 6.23 No records of hazel dormice have returned within 2km of the application site.

Riparian Mammals

- 6.24 There is no suitable habitat for riparian mammals e.g. otter, water vole within the application site.
- 6.25 Ponds can provide suitable habitat for water voles under certain conditions. However, the waterbody on-site is isolated from a network of watercourses allowing adequate dispersal and protection from predation required to provide suitable habitat (Miller & Hobson, 2001).
- 6.26 No records of water vole have returned within 2km of the application site. Four records of otter have returned within 2km of application site. The closest record has been returned from 1.4km north-west.

S.41 Mammals

- 6.27 The following notable mammals listed under Section 41 of the Natural Environment and Rural Communities Act 2006 have been returned from within 2km of the application site: West European hedgehog, harvest mouse, brown hare & polecat. The closest record is for a brown hare located 189 meters south.

7.0 CONCLUSION AND RECOMMENDATIONS

- 7.1 The following have been identified which may represent constraints or opportunities within future development of the site. Recommended measures for the avoidance of impacts on identified features of nature conservation interest and opportunities by which development of the site can maintain and enhance the current value of the site have been outlined.

Designated Sites

Statutory Designated Sites

- 7.2 The Natural England SSSI Impact Risk Zones used to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites was consulted via the government's multi-agency website MAGIC (www.magic.gov.uk). The sites falls within the risk zones of Birches Barn Meadow SSSI and Alvecote Pools SSSI with the following categories flagged:
- Residential: Residential development of 100 units or more.
 - Discharge: Any discharge of water or liquid waste of more than 5m³/day that is discharged to ground (i.e. to seep away) or to surface water, such as a beck or stream.
- 7.3 As the proposals are for 110 residential units, it is anticipated that Natural England will need to be consulted for advice on the nature of potential impacts and how these might be avoided or mitigated.
- 7.4 Birches Barn Meadow has been designated as a Site of Special Scientific Interest (SSSI) due to its status as unimproved neutral grassland, a habitat that has become increasingly rare, with over 95% lost in the past century. The following pressures have been identified:
- Agricultural intensification, including the use of fertilizers and herbicides, altering soil composition and reduce plant diversity.
 - Changes in hydrology, such as drainage schemes and water management alterations, disrupting the natural moisture balance essential for maintaining the meadow's habitat.
 - Nutrient enrichment from agricultural runoff leading to the dominance of aggressive plant species, outcompeting the diverse flora characteristic of unimproved grasslands.
 - Loss of traditional management practices such as grazing or hay cutting may result in scrub encroachment, gradually transforming the open meadow into woodland and reducing its biodiversity.
- 7.5 Alvecote Pools has been designated as a Site of Special Scientific Interest (SSSI) due to its significance as one of the most extensive and diverse wetland areas in Warwickshire.

The site encompasses a series of shallow pools, fens, reedbeds, and woodlands that have developed because of mining subsidence from historical colliery operations. This diverse range of habitats supports a regionally important bird community, with over 100 species recorded annually and between 60 to 70 species breeding on-site. The following pressures have been identified:

- Water pollution from nearby agricultural runoff and urban development, which can degrade water quality and harm aquatic habitats.
- Increased human disturbance, habitat fragmentation, and potential pollution

Non-statutory Designated Sites

- 7.6 Due to the nearest non-statutory site being located 0.5km North-west as well as the size of the application site , it can be classified as having no impact.

Protected and Notable Species

Great Crested Newts

- 7.7 It is unknown whether the on-site pond or those within 500m of the application site support great crested newts. Therefore, surveys will be required of all ponds within 250m (P1-P3) subject to suitability to confirm presence / absence of newts.
- 7.8 The ponds may be sampled utilising the environmental DNA (eDNA) technique approved by Natural England (Biggs, 2014). Water samples must be collected by appropriately licensed personnel between 15 April and 30 June, to comply with current survey guidelines. If any ponds within 250m of the application site are confirmed to support great crested newts, a population class assessment will need to be undertaken to inform a future Natural England development licence (if required). Population class assessments involve six visits being carried out between mid-March and mid-June with at least three visits occurring between mid-April and mid-May to estimate population size.
- 7.9 In line with current guidance (Grundy, 2025), as all the following four conditions have not been met, it is not proportionate to survey up to 500m:
- 1) Maps, aerial photos, walk-over surveys or other data indicate that the target waterbodies are deemed to have the potential to support a large GCN population (peak count/s >100 adult GCN). *There is no information to support that the surrounding waterbodies comprise large populations of newts.*
 - 2) A Site footprint contains particularly favourable GCN terrestrial habitat, especially if it constitutes the majority of such habitats available locally. *The site is arable; a low value newt terrestrial habitat.*
 - 3) The development would have a substantial negative effect on that GCN terrestrial habitat. *Minimal high value newt habitat would be impacted.*

- 4) There are no physical barriers to GCN dispersal.

Birds

- 7.10 An underlying presumption of updated guidance guidelines (see RSK Biocensus, 2021) is that bird surveys (breeding/non-breeding) should always be scoped in unless robust justification can be provided as to why they are not required. However, the '*scoping process should be proportionate to the scale and nature of the proposed development*'.
- 7.11 The habitats on-site to be impacted (arable) are not unique or scarce in the context of the surrounding landscape. Furthermore, it is anticipated that scheme with large biodiversity areas and retention of hedgerows holds the opportunity to provide a benefit for bird species at Site level post-development.
- 7.12 However, as Alvecote Pools (SSSI) located c.1.9km north-west supports a regionally important bird community, with over 100 species recorded annually and between 60 to 70 species breeding on-site, it is recommended that an initial scoping survey for birds is undertaken to determine the ornithological importance of the application site, whether additional survey work is required, assess anticipated impacts and direct appropriate mitigation (e.g. through future landscaping).

Bats

- 7.13 It is understood that all mature hedgerows and trees are to be retained and protected as part of the proposals. Should any mature trees be impacted (removal due to health and safety reasons, change of layout, post-development light spill etc.); tree inspections for bats will be required to identify any potential suitable roosting features (PRFs) and presence / absence of bats.
- 7.14 The Framework Plan indicates that large biodiversity buffers will be afforded around all boundary hedgerows. Maintaining these as dark corridors, incorporating 'bat friendly' planting and providing bat boxes would provide a benefit for bat species at Site level. As no loss or impact upon commuting / foraging routes is anticipated, further surveys to assess bat activity have not been recommended.
- 7.15 However, should the proposals change that light spillage on potential bat foraging routes reaches more than 1lux at 2m above ground, further survey work will be required to assess bat activity throughout the season.
- 7.16 Should lighting impacts be unknown, an Isolux plan showing the extent of the habitat features (spread of tree / hedgerow canopy), position of any lighting columns, light spill and 1, 2 and 5lux levels at 2 metres above ground should be submitted to support the application.

8.0 REFERENCES

- ARG UK (2010). ARG Advice Note 5: Great Crested Newt Habitat Suitability Index. <https://www.arguk.org/info-advice/advice-notes/9-great-crested-newt-habitat-suitability-index-arg-advice-note-5/file> [Accessed February 2025]
- Bat Conservation Trust & Institute of Lighting Professionals (2023). *Bats and artificial lighting at night- Guidance Note GN08/23*. Institute of Lighting Professionals, Warwickshire, UK.
- Biggs, J., Ewald, N., Valentini, A., Gaboriaud, C., Griffiths, R.A., Foster, J., Wilkinson, J., Arnett, A., Williams, P. and Dunn, F. (2014). *Analytical and methodological development for improved surveillance of the Great Crested Newt*. Defra Project WC1067. Freshwater Habitats Trust: Oxford, UK.
- Braaker, S., Moretti, M., Boesch, R., Ghazoul, J., Obrist, M. and Bontadina, F. (2014). *Assessing habitat connectivity for ground-dwelling animals in an urban environment*. Ecological Applications. 24. 1583-1595. 10.1890/13-1088.1.
- Bright, P.W. & Morris, P.A. (1990). Habitat requirements of dormice (*Muscardinus avellanarius*) in England and Wales. *Biological Conservation*, 54(4), 307–326. [https://doi.org/10.1016/0006-3207\(90\)90152-6](https://doi.org/10.1016/0006-3207(90)90152-6)
- Bright, P., Morris, P. and Mitchell-Jones, T. (2006). *The Dormouse Conservation Handbook (2nd Edition)*. English Nature (now Natural England), Peterborough, UK.
- CIEEM (2017a). *Guidelines for Ecological Report Writing*. Chartered Institute of Ecology and Environment, Winchester, UK.
- CIEEM (2017b). *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environment, Winchester, UK.
- CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environment, Winchester, UK.
- Collins, J. (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*. The Bat Conservation Trust, London Committee, Peterborough, UK.
- Cresswell, W. and Whitworth, R. (2004). *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus*. Research Report R576, English Nature, Peterborough, UK.
- Dean et al (2016). *The Water Vole Mitigation Handbook*. Mammal Society, Bristol, UK.
- English Nature (2001). *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough, UK.

English Nature (2005). *Organising surveys to determine site quality for invertebrates: a framework guide for ecologists*. English Nature, Peterborough, UK.

Froglife (1999). *Reptile survey. An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth, Suffolk, UK.

Fuller, R.J (1980). *A method for assessing the ornithological interest of sites for conservation*. Biological Conservation 17: 229-239.

Fure, A (2012). *Bats and Lighting – six years on*. The London Naturalist No. 85.

Gent, T. and Gibson, S. (eds) (1998). *Herpetofauna Workers' Manual*. Joint Nature Conservation, UK.

Harris, S., Cresswell, P. and Jefferies, D. (1991). *Surveying Badgers*. The Mammal Society, Bristol, UK.

Institution of Lighting Professionals (2020). *Guidance Notes for the Reduction of Obtrusive Lighting. GN01:20 [online]*. Institution of Lighting Professionals. Available at <https://www.theilp.org.uk/documents/obtrusive-light/> [Accessed February 2025]

Langton, T., Beckett, C. and Foster, J. (2001). *Great Crested Newt Conservation Handbook*. Froglife, Halesworth, Suffolk, UK.

MAGIC (2021). *Interactive Map*. Available from: <https://magic.defra.gov.uk/> [Accessed February 2025]

Marchant, J.H. (1983). *BTO Common Birds Census instructions*. BTO, Tring, UK.

Mathews, F., Kubasiewicz, L. M., Gurnell, J., Harrower, C. A., McDonald, R. A. and Shore, R. F. (2018). *A Review of the Population and Conservation Status of British Mammals*. Natural England Joint Publication JP025. Available at <http://publications.naturalengland.org.uk/publication/5636785878597632> [Accessed February 2025]

Miller, J. & Hobson, K.A. (2001). *Habitat use and population dynamics of the water vole (Arvicola amphibius) in southern England: implications for conservation*. Journal of Zoology, 253(1), 59-70.

Neal, E. & Cheeseman, C. (1996). *Badgers*. Poyser Natural History, London.

RSK Biocensus (2021). *Bird Survey Guidelines for assessing ecological impacts*. <https://birdsurveyguidelines.org> [Accessed February 2025]

Stace, C. (1997). *New Flora of the British Isles (Second edition)*. Cambridge University Press, Cambridge, UK.

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021). *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. British Birds 114: 723-747. Available online at <https://britishbirds.co.uk/content/status-our-bird-populations> [Accessed February 2025]

UK Habitat Ltd. (2023). *UK Habitat Classification Version 2.0*. <https://ukhab.org> [Accessed February 2025]

APPENDIX A

Plans

UK Habitat Classification Survey Plan



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Key

- Red Line Boundary
- Arable
- Developed land; sealed surface
- Pond
- Willow scrub
- Species-rich native hedgerow
- Species-rich native hedgerow with trees



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Land north of Orton Road, Warton

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UK Hab / BNG Baseline Plan

DRAWING STATUS
Planning

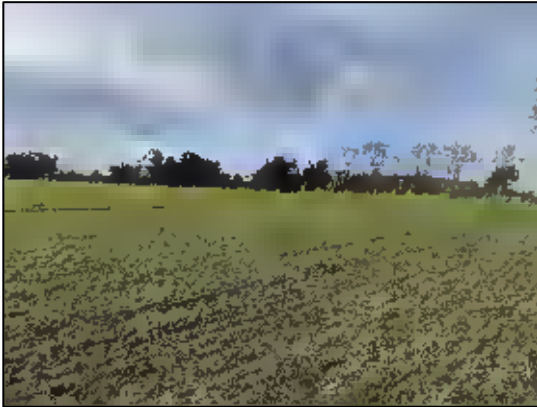
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SCALE @ A4 1:3,500	DATE MAR 2025
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APPENDIX B

Photographs



Photograph 1: view across the site.



Photograph 2: view along Hedgerow 3.



Photograph 3: view along the eastern boundary.



Photograph 4: view across the site.



Photograph 5: pond and willow scrub.



Photograph 6: view across the site.

APPENDIX C

Qualifications and Experience

BLADE Ecology Ltd is Registered Practice of the Chartered Institute of Ecology and Environmental Management (CIEEM). A comprehensive range of ecological services are offered including Preliminary Ecological Appraisal (PEA), Ecological Impact Assessment (EclA), Habitat Regulations Assessment (HRA), Biodiversity Impact Assessment (BIA) and European Protected Species (EPS) Surveys / Licensing.

The practice works closely work closely with clients to achieve their aspirations alongside securing the best outcomes for the environment. With wildlife legislation and policy as its basis; commercial awareness, pragmatism and defensible advice is combined to form BLADE Ecology's approach.

As well as offering a wide range of ecological services, BLADE Ecology offers an in-house collaborative approach in conjunction with BLADE Landscape Architects and BLADE Trees.

Emma Seaton BSc (Hons) MCIEEM

Emma holds a BSc (Hons) degree in Biology from the University of Sheffield and has since gained a postgraduate certificate in Ecological Consultancy. Her ecological experience includes Preliminary Ecological Appraisals, Ecological Impact Assessments (EclA), surveying for notable / European Protected Species, mitigation / licensing advice and providing Continued Professional Development (CPD) sessions for developers on Biodiversity Net Gain. She has held Natural England survey licences for bats (Class 2), great crested newts and white-clawed crayfish since 2015. She is also a Registered Consultant under the Bat Mitigation Class Licence (BMCL) licence and Earned Recognition Consultant under the Natural England bat pilot project. Emma is a Full member of the Chartered Institute of Ecology and Environmental Management.

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