



WE KNOW SERVICES

Preliminary Ecological Appraisal Report

Site

Alderley – Water Lane, Tarbock Green,
Knowlsey

Client

Mr Darrin Addams

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Quality Assurance

The information which the author has prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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Summary

A Preliminary Ecological Appraisal (PEA) commissioned by Darrin Addams, was carried out for a proposed development at a property named Alderley, located on Water Lane, Tarbock Green, Knowsley. The survey was commissioned to support a planning application for the proposed demolition of an existing garage and replacement with a new garage within the existing developed footprint. Wider aspects of the works would include bringing an existing outdoor pool back into use and associated hard landscaping.

The purpose of the survey and report is to provide an ecological baseline and initial assessment of the potential impacts of the development proposals upon the nature conservation of the site and other ecological receptors (in relation to a planning application).

In view of the results of the desk and field-based assessment of the site, the site is considered to be of relatively low ecological value in the local context and loss of biodiversity as a result of the proposed development is limited and can be mitigated for and enhanced as part of the proposed development.

The main features of interest are the boundary hedgerows (priority habitat and bird nesting/foraging resource) which will be retained and can be enhanced as part of the development.

The detached garage has low potential to support bat roosts and as such will require additional survey and assessment in the form of 1 x emergence survey, in line with current professional survey guidance (Collins, 2016).

The site may support common and widespread amphibians and hedgehog, for basic which precautionary working measures are recommended in order to comply with planning policy and legislative requirements. Enhancement measures in the form of provision of nest boxes, a bat box and advice relating to use of native and wildlife friendly species for planting is provided with the aim of maintaining and enhancing the biodiversity value of the proposed development area and wider site in the long-term.

Where appropriate measures as recommended in the report are adopted, and taking into account the results of further survey for bats, the development will be able to proceed having considered and addressed the necessary legislation and both local and national policy relating to biodiversity conservation.

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1. Introduction

A Preliminary Ecological Appraisal (PEA) commissioned by Darrin Addams, was carried out for a proposed development at a property named Alderley, located on Water Lane, Tarbock Green, Knowsley. The survey was commissioned to support a planning application for the proposed demolition of an existing garage and replacement with a new garage within the existing developed footprint. Wider aspects of the works would include bringing an existing outdoor pool back into use and associated hard landscaping.

The purpose of the survey and report is to provide an ecological baseline and initial assessment of the potential impacts of the development proposals upon the nature conservation of the site and other ecological receptors (in relation to a planning application).

A previous ecological appraisal report for the site was produced in 2018 (WeKnow Services, 2018) which related to the re-development of the main residential dwelling (now complete) and demolition of the garage (which has not yet taken place). This report was referred to in the production of this report.

1.1. Site Description

The site is located in a rural setting on Water Lane, Tarbock Green (Grid Reference: SJ 46457 87551) in Knowsley. The wider property consists of a single residential property (newly renovated and extended), a detached garage (subject of this planning application), and existing disused outdoor swimming pool, and associated gardens with a shed and outhouse to the southern extent of the property curtilage. The property is bound to all aspect by hedgerows and/or fences. To the west of the site is Water Lane; the south Netherley Road; the north a neighbouring residential property; and the east an agricultural field (arable). See Appendix 1 and Figure 1 for site location in the wider context.



Figure 1. Property Boundary (Blue), Proposed Development Area (Red) and surrounding landscape character.

1.2. Proposed Development

It is understood that the proposal is for demolition of an existing garage and replacement with a new garage to the north west corner of the site and within the existing developed footprint. Works would also include bringing an existing outdoor pool back into use and associated hard landscaping. The wider site associated with the main residential dwelling would not be affected by the proposals.

2. Methodology

2.1. Personnel & Quality Assurance

Rob Nicholson BSc (Hons) MCIEEM is a Class 2 Bat licence holder (Natural England), has over 15 years' relevant experience as an ecologist and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Rob has also been 'named ecologist' on numerous European Protected Species Licences (EPSL) for bats for a range of species and roost types in both England and Wales.

All field work and assessment was undertaken in accordance with current best practice guidelines (CIEEM, 2016 & Collins, J. (Ed) 2016). The survey was undertaken on the 21st March 2023 along with the desk-based assessment.

This report has been prepared in accordance with guidance produced by the Chartered Institute of Ecology and Environmental Management (CIEEM 2017) and the British Standard 42020:2013.

2.2. Scope of the Assessment

The following ecological features / resources were considered during the assessment:

- Statutory and Non-Statutory Designated sites;
- Habitats of principal importance for conservation of biodiversity;
- Protected species;
- Species of principal importance for conservation of biodiversity;
- Other notable species.

No consultations have taken place in relation to determining the scope of the assessment.

2.3. Desk Study

To inform the survey, the desk study used available ecological information relating to ecology for the area surrounding the site. Online resources, including Multi-Agency Geographic Information Centre (MAGIC), were consulted in relation to the presence of sites and habitats of importance in the wider context.

A data request to the Local Records Centre (Merseyside Biobank) was not made due to the small scale of the proposed development. The pre-existing ecology report for the site (We Know Services, 2019) was referred to.

2.4. Field Survey

Phase 1 habitat survey

A Phase 1 Habitat Survey was conducted on 21st March 2023 based on the techniques and methodologies described in the Handbook for Phase 1 Habitat Survey (JNCC 2010) and using standard nomenclature (Stace 2019).

The habitats present were recorded on to a field map (Appendix 2) along with digital photographs (Appendix 3), providing supplementary information on, for example, species composition structure and management where relevant. This was extended to include notes on fauna and habitats which could potentially support protected species, an approach commonly referred to as an Extended Phase 1 Habitat Survey.

Preliminary Bat Roost Assessment (PRA)

The Preliminary Bat Roost assessment (PRA) involved a building inspection which was limited to the building (detached garage - only) subject of the proposals.

The building was inspected using close-focusing binoculars (Pentax Papilio 8.5 x 21) to determine possible access points such as cavities in walls and the roof structure. An internal inspection of all areas within the building was conducted where accessible. Using ladders, all accessible features were closely inspected using *Lenser H14* and *X21* cool light torches. Where possible, any cracks, crevices and likely access points or potential roost features were checked for signs of use by bats e.g., droppings, scratch marks and staining. An endoscope was used to inspect cavities that could be accessed safely via ladders.

Any trees on site and likely to be affected by proposals were assessed from ground level for their potential to support bat roosts.

2.5. Assessment and Evaluation

The importance of the habitat features on site were assessed and defined in a geographical context (see Appendix 4). The frame of reference for the habitat features in terms of their geographical importance is in line with guidance set out in CIEEM, 2017. Species are assessed, where appropriate, against best practice guidelines.

As part of the evaluation, further surveys may be recommended based on the suitability of habitats to support protected species, the habitats themselves and

potential impacts posed by the proposed development, and the legal protection afforded to both habitats and species.

2.6. Zone of Influence

The assessment conducted for this report has considered the area in which ecological features could be subject to significant effects from the proposed development. The area of the potential effects is often wider than the actual perimeter of the development site and is known as the Zone of Influence. The Zone of Influence varies for different ecological features and each designated site, habitat and species has been considered in relation to their sensitivity to the proposed development.

- Special Areas of Conservation (SAC), Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) - site level only
- Local Nature Reserves (LNR) - site level only
- Bats - 1km (10km for importance bat sites – SACs for which bats are a qualifying feature).
- Great Crested Newt (GCN) ponds - 250m
- Birds - Site level only
- Other notable species/habitats, particularly listed as UK and/or local Biodiversity Action Plan priority - site level only.

3. Constraints

The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. It should not be taken as providing a full and definitive survey of any protected species group.

Even where data for a particular species groups are provided in the desk study, a lack of records of a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may simply be under recorded.

The Phase 1 Habitat Survey does not constitute a full botanical survey or provide accurate mapping of invasive plant species and the survey was undertaken outside of the optimal period for botanical survey, with many species not evident or in flower.

Despite these limitations, it is considered that this report reflects accurately the habitats present, their biodiversity importance, and the potential for the site to support protected and notable species.

4. Baseline Ecological Conditions

4.1. Designated Sites

Statutory Designated Sites

According to the Natural England online mapping resource MAGIC, there are no statutory designated sites within 2km of the site.

Non-statutory sites

There are four non-statutory sites, Knowsley Local Wildlife Sites (LWS), within one kilometre of the site as follows:

Table 1. Non-Statutory Designated Sites within 2km of the site.

Name	Type
Tarbock Green Ditch	Knowsley Local Wildlife Sites
Brick Wall Covert	Knowsley Local Wildlife Sites
Dog Clog Brook	Knowsley Local Wildlife Sites
Ochre Brook	Knowsley Local Wildlife Sites

4.2. Habitats

The overall character of the site can be described as a detached garage and gardens associated with an existing residential property.

According to MAGIC there are no mapped UKBAP priority habitats associated with the site.

Field Survey

The habitats identified during the Extended Phase 1 Habitat Survey are listed and described below. All habitats are marked on the Phase 1 Habitat map in Appendix 2.

Note: The habitats below relate to the proposed development area and not the wider residential property footprint as these areas comprise of gardens and a lived-in property that will remain unaffected by the proposals.

Building & Hardstanding

There is single permanent building (detached garage), which will be demolished and re-developed entirely at a different location with the development area. This building is of brick construction (rendered to the exterior) with a single pitched slate roof. The roof structure is timber and the slates are underlined with bituminous felt. The building is used for storage with strip-lighting installed to the interior and occasionally accessed. The building was assessed for the potential to support bats (Collins. J (ed) 2016) and inspected for evidence of nesting birds (see section 4.3 for details).

Amenity Grassland

There are three small areas of amenity grassland within or in close proximity to the proposed development area (east of the detached garage). Structurally the sward is short and uniform. Species present are typical of seeded lawns with comprises closely mown amenity grassland.

This habitat is characterised by dominant Perennial Rye-grass (*Lolium perenne*), abundant Red Fescue (*Festuca rubra*), occasional Selfheal (*Prunella vulgaris*), White Clover (*Trifolium repens*) and Daisy (*Bellis perennis*) and very locally frequent Springy Turf-moss (*Rhytidiadelphus squarrosus*). These areas appear intensively managed/mown, is limited in species and structural diversity and is of low ecological value.

Hedgerow (intact species-poor)

There are hedgerows to the west, east and southern boundaries of the wider site. In relation to the proposed development area, there are hedgerows to the west (adjacent to Water Lane) and the eastern boundary. These are generally species-poor hedgerows with the western hedgerow being left un-cut for some time, allowing the hedge to become taller and “leggy”. There are sections of the western boundary hedgerow where there are distinct gaps establishing and require management. The

eastern hedge appears to be better maintained and separates the site from the neighbouring arable field.

The hedgerows are dominated by Hawthorn (*Crataegus monogyna*) with occasional Garden Privet (*Ligustrum ovalifolium*) Elder (*Sambucus nigra*) and Holly (*Ilex aquifolium*). The eastern hedgerow also includes Ash (*Fraxinus excelsior*) and there is a mature Pear (*Pyrus* sp.) tree situated immediate to this (>20m east of the proposed development area).

Hedgerow flora visible at the time of survey was limited but included locally abundant Ivy (*Hedera helix*) Hedge Garlic (*Alliaria petiolata*), Cleavers (*Galium aparine*), Common Nettle (*Urtica dioica*), Broadleaved Dock (*Rumex obtusifolius*).

Trees

There are a small number of trees in close proximity to the proposed development area. These include individual Magnolia sp., Elder, Pear and Apple (*Malus* sp.) trees (four in total). The closest of these to the development is the Magnolia tree (<5m east of the detached garage), but this (and all other trees) are anticipated to be retained as part of the development.

Spoil piles

There were two spoil piles situated adjacent to the hardstanding close to the entrance to the site. These appear to be associated with the recent renovation and gardening works to the main residential property (outside of the proposed development area) and comprise of one soil mound and one mixed soil and block. There is also one loose bash pile comprised of recent cuttings from the fruit trees and one pile of sandstone blocks.

Waterbody (Covered Outdoor Swimming Pool)

There is a disused outdoor swimming pool to the north eastern corner of the site. The pool is entirely covered with a canvas with various items littered on top and algal blooms in the shallow water that has pooled on top of the canvas. The pool is of negligible ecological value.

4.3. Species

Species likely to occur in close proximity to the site according to information provided by the local records centre (Record – records within last 20 years – see Appendix 5 for full details) or with relevance to habitats present within or adjacent to the site are covered below:

Species relevant to habitats within the site, in close proximity or which could be otherwise affected by the proposals are covered below.

Bats

No records of granted European Protected Species Licences for bats were identified within 2km and there are no important bat sites (SACs) within 10km of the site according to MAGIC.

The detached garage was inspected internally and externally in relation to its potential to support bat roosts (in line with current professional survey guidelines, Collins 2016).

Details of the inspection are provided in Table 1 below.

Table.1 Building Inspection Results

Photo	Description
	The existing detached garage is of brick construction (rendered to the exterior) with a single pitched slate roof. The roof structure is timber and the slates are underlined with bituminous felt. Potential access points or roost features for bats are associated with the roof structure, with gaps between slates and a gap at the eastern apex allowing access and the felt underlining (beneath slates) providing a potential roost feature. No evidence of the presence of bats was recorded at the time of survey, but signs may not always be evident where a roost is concealed (e.g.; between slates and felt lining). Potential Roost Features: Gaps in roof slates, apex ridge tile and potential roost feature between slates and felt Evidence: None Bat Roost Assessment: <u>Low Potential</u>

There are no trees within or close to the proposed development area with the potential to support bat roosts and it is understood that no trees will be removed as part of the proposals.

Whilst potential for roosting bats is currently considered to be low (associated with the detached garage proposed for demolition), the site is considered overall suitable for supporting foraging bats from dusk through until dawn, with habitats present likely to support suitable prey species (flies and moths).

Amphibians & Reptiles

According to MAGIC website, there are no records of granted European Protected Species Licences for Great Crested Newt (*Triturus cristatus*) or Class Licence survey returns within 500m of the site. According to OS Maps there are no ponds with connectivity to the site within 250m. There are two ponds with terrestrial connectivity to the site within 500m. These are located 370m north-east and 435m east of the site respectively and are located within woodland copses located within arable fields (unfavourable habitat for amphibians, including Great Crested Newt). There are other waterbodies in the wider context, however these are disconnected from the site by roads or watercourses.

Reptiles have limited distribution in the Merseyside area largely associated with the Sefton Coast (remote from this site). Habitat in the vicinity of the site comprises largely of arable fields, an unfavourable habitat for reptiles.

The habitat within the proposed development area is of limited value to amphibians and reptiles but the hedgerows and wider garden areas provide potentially suitable terrestrial habitat for more common and widespread amphibian species such as Common Frog (*Rana temporaria*).

Birds

Habitats within the wider site, including hedgerows and trees, have high potential to support a variety of nesting birds during the breeding season (March – August inclusive). The proposed development area is a relatively small area within the curtilage of a residential property and is therefore unsuitable for supporting ground nesting birds. The detached garage has no large openings, so is not suitable for supporting Barn Owl (*Tyto alba*), which may be present in the wider area given the habitat and landscape present.

In view of the above, there is considered to be potential for nesting birds to utilise trees, hedgerows and potentially the detached for nesting during the breeding season (March – August inclusive).

Badger

Badgers (*Meles meles*) are generally not considered to occur in this area, with only a few records of Badger occurring at all within the Merseyside area (largely on the outskirts toward West and Southern Lancashire and into Cheshire). Habitat within the proposed development area is of negligible interest for Badger, being primarily bare ground, hardstanding and a building. The hedgerows are also not wide or dense enough to provide cover. No evidence to suggest the presence of Badger was identified during the survey (or in the preceding survey in 2019 (WeKnow Services)). In view of the above the site is considered to be of no value for Badgers.

Invertebrates

The proposed development area comprises largely of bare ground, hardstanding and a building (detached garage), which are each likely to be of negligible value for invertebrate species. Habitats within the wider site, including hedgerows and trees, have potential to support a variety of invertebrate species, though it is unlikely these would be in any way affected by the proposals.

Other Notable Species

It is considered likely that Hedgehog (*Erinaceus europaeus*) may frequent the site due to the presence of hedgerows (absence of fences) and scrub/leaf litter from trees/habitat piles, etc, all of which provide cover and foraging habitat for the species.

Invasive Non-native Species (INNS)

No non-native invasive plant species were evident within or close to the proposed development area at the time of survey. Given the location and habitat present (bare ground, hardstanding and building adjacent to a residential property and gardens) and the absence of any evidence of INNS within the site at the time of survey, the presence of such species within the site can be reasonably discounted.

Notable Flora

No rare or particularly notable plant species were recorded during the field survey, or are considered likely to occur, though it is possible that bluebell could occur in association with the bases of hedgerows (not visible at the time of survey).

5. PLANNING POLICY AND LEGISLATION

5.1. National Planning Policy

The National Planning Policy Framework (NPPF) July 2021, is an update to the previous version issued in February 2019, and is a policy framework document which provide a range of important principles. Paragraph 174 of the NPPF states that decisions should contribute to and enhance the natural local environment 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 175 goes on to state:

'... 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.'

With respect to protection of habitats and biodiversity, paragraph 179 states development 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 biodiversity⁶¹; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation⁶²; 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.

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles (paragraph 180):

'Development proposals where the primary objective is to conserve or enhance biodiversity should be supported.'

'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.'

5.2. Local Planning Policy

Table 2 details the policies within Knowsley Local Plan Core Strategy (Adopted January 2016) which are relevant to the ecological features present on site.

Table 2: Summary of relevant local planning policy

Policy	Description
Policy CS8	Maintenance and Enhancement of Knowsley's Existing Green Infrastructure:
Green Infrastructure	1) Knowsley's existing Green Infrastructure and its beneficial functions will be protected, managed and/or enhanced, primarily to: a) Ensure more attractive and cleaner residential neighbourhoods; b) Sustain and promote biodiversity (including designated sites, priority habitats and protected and endangered species) in accordance with importance and contribution to ecological networks; c) Preserve the character and function of historic environments and valued landscapes; d) Mitigate the effects of climate change and flood risk; e) Mitigate air, water and noise pollution; f) Provide local opportunities for sport, recreation and allotments; and g) Provide sustainable transport linkages between residential neighbourhoods and easy access to employment and services. 2) To achieve the above, planning powers and other interventions will be used to: a) Protect and enhance strategically important areas of greenspace; b) Ensure an appropriate quantity and improved quality of locally important

open spaces, including outdoor sports provision (and ancillary facilities of appropriate scale);

c) Promote effective movement of wildlife through a network of strategic green

links, by protecting, maintaining and improving existing and new open spaces, water courses (including water quality) and biodiversity assets;

d) Protect, enhance and/or introduce biodiversity into existing areas of Green

Infrastructure, through integration into the design of new development and public realm projects;

e) Improve accessibility for communities to greenspace offering leisure and

recreation opportunities;

f) Protect and where possible improve green paths and cycleways linking residential areas, existing strategic areas of greenspace, employment locations, local community services and leisure facilities;

g) Work in partnership with other districts and relevant bodies at a landscape

scale to minimise the impact of development upon Knowsley's existing biodiversity and geological assets, and sustain the protection afforded to internationally important sites, including supporting habitat, for biodiversity outside of the borough; and

h) Deliver new integrated and functional Green Infrastructure that helps to mitigate and adapt to climate change, such as sustainable drainage systems, carbon capture and storage, soft landscaping and green roofs.

Strategic Green Links

4) Knowsley's strategically important green links are:

- a) Alt Corridor (Huyton) – stretching from Huyton Village through South Alt Park, Alt Park, Alt Meadows and into Stockbridge Village;
- b) Valley Corridor (Kirkby) – stretching through Valley Meadow, St. Chad's Park, Millbrook Park, Millennium Green and Mill Dam;
- c) Whiston to Cronton Corridor – stretching through Cronton, Stadt Moers Park and Whiston Greenway;
- d) Halewood Triangle – Halewood Park linkage with the Trans-Pennine Trail and to the national cycle network;
- e) M57 Green Belt Corridor; and
- f) Knowsley Hall Estate – including Knowsley Safari Park and Local Wildlife Sites.

Approach to Green Infrastructure and New Development 6) New development must

be served by Green Infrastructure to meet the needs of residents and the local environment, in a manner which will:

- a) Contribute to the creation of a high-quality residential environment;
- b) Provide access to high quality open space for leisure and recreational purposes;
- c) Seek to protect, maintain and where possible enhance biodiversity within and around new developments according to their designation and significance to provide space for nature; and
- d) Provide adequate mitigation and/or, as a last resort, compensation for Green Infrastructure or biodiversity loss, in

	circumstances where harm resulting from the development is otherwise unavoidable.
Policy CS2 Development Principles	Principle 4: Recognise environmental limits, protect and enhance environmental assets, enhance local character and promote quality of place by: (h) Maintaining or enhancing the quantity and quality of biodiversity and habitats, including potential impacts on nationally and internationally important sites for biodiversity;

5.3. Relevant Legislation

National Legislation

The Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981 (as amended) consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain.

Natural Environment & Rural Communities Act 2006

Section 40 of the NERC Act 2006 places a duty upon all local authorities in England to promote and enhance biodiversity in all of their functions. Section 41 lists habitats and species of principal importance to the conservation of biodiversity. Fifty-six habitats and 943 species of Principal Importance for Conservation are included on the Section 41 list and draws upon the UK BAP List of Priority Species and Habitats.

The Conservation of Habitats and Species (Amendment) Regulations 2017

The Conservation of Habitats and Species Regulations 2017 transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law and transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations provide for the designation and protection of 'European sites' (Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)), the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European sites.

The Environment Act 2021

The Environment Bill has now been entered into legislation becoming The Environment Act 2021, and provides a tool to implement changes in England across environmental sectors including air quality, biodiversity, water, and waste reduction and resource efficiency. The Act includes a target to halt the decline of nature by 2030, and mandates [Biodiversity Net Gain](#) for developments. The Act is described as:

“A Bill to make provision about targets, plans and policies for improving the natural environment; for statements and reports about environmental protection; for the Office for Environmental Protection; about waste and resource efficiency; about air quality; for the recall of products that fail to meet environmental standards; about water; about nature and biodiversity; for conservation covenants; about the regulation of chemicals; and for connected purposes”.

Species Legislation

Bats

In England, all British bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended).

These pieces of legislation combine to give substantial protection to bats and their roost sites, making it an offence to:

Deliberately or intentionally kill, injure or take a bat;

Damage, destroy or intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not);

Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

Birds

Breeding wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). Under the Wildlife and Countryside Act, a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds however are not included in this definition (except for limited parts of the Act). They are covered by the Game Acts, which fully protect them

during the close season. All birds, their nests and eggs are protected and it is thus an offence, with certain exceptions to:

- *intentionally kill, injure or take any wild bird;*
- *intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;*
- *intentionally take or destroy the egg of any wild bird;*
- *have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954;*
- *have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954;*
- *use traps or similar items to kill, injure or take wild birds; and*
- *have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations.*

Additionally, for some species listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) it is an offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young.

Other Mammals

All mammals in the UK are protected under the Wild Mammals (Protection) Act 1996. An Act providing protection for wild mammals against certain acts of deliberate harm. "Wild mammal" means any mammal which is not a "protected animal" within the meaning of the Animal Welfare Act 2006 (Schedule 3, Section 13 of the 2006 Act). The following offences are specified in relation to any wild mammal: to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate. The offences require proof of intent to inflict unnecessary suffering.

6. Ecological Evaluation, Recommendations for Mitigation and Further Survey

6.1. Designated Sites

Due to the scale of the proposed development (small scale residential development within the existing site boundary) and distance from any statutory or non-statutory designated sites, no impacts upon such sites are anticipated because of the proposed development.

6.2. Habitats

The building on site is relatively small but possesses access points and potential roost features for bats. There is also potential for birds to utilise the buildings for nesting during the breeding season (March-August inclusive), though no nests were evident at the time of survey (early in the breeding season).

The hedgerows forming the site boundaries are generally species-poor but do contain native species. In general, hedges provide habitat for nesting birds, flight commuting lines for bats and cover for small mammals and invertebrates and they are considered priority habitat. It is understood that all hedgerows present will be retained, enhanced through planting of native species such as Holly, Hawthorn and Blackthorn (*Prunus spinosa*) and managed appropriately in the long-term as part of the proposed development.

The remainder of the proposed development area (hardstanding, bare ground, covered swimming pool) is of negligible ecological value, and the existing residential property and wider garden areas will remain unaffected.

6.3. Species and Species Groups

Results of the desk study and field survey are used to determine protected species that may be of relevance to the site and the proposed development. Those that are not considered relevant to the site following the above assessment are not discussed specifically any further.

Bats

The site is likely to provide foraging habitat for bats with artificial lighting in the vicinity of the site likely to be low (therefore not deterring bats from the area).

The existing detached garage will be demolished and a new garage built several metres to the north west of the existing location. The existing building has been assessed as being of "low potential" for supporting bat roosts (Collins 2016) due to access points associated with the exterior of the roof and the roof being underlined with bituminous felt (providing a favoured roost feature for crevice dwelling bats such as Common Pipistrelle).

As such a single nocturnal emergence survey is recommended to rule out the presence of a bat roost in relation to the building.

No trees were identified with potential for supporting bat roosts and no trees are proposed for removal as part of the development, therefore no further assessment in relation to bat roosts in trees is required.

It should be noted that any proposed lighting scheme associated with the development should ensure that habitats such as hedgerows are not directly illuminated at night. Low-level lighting or similar solutions can be used to prevent artificial light levels from deterring bats from the site (please see *'Bats and artificial lighting guidance note (2018)* for further information).

Amphibians

In view of the distance of the site from the nearest ponds, their location within worked arable fields (unfavourable habitat for Great Crested Newt) and paucity of habitat of value for Great Crested Newt within the site, it is considered highly unlikely that this species would occur within the site. In the highly unlikely event at any stage a Great Crested Newt is suspected to be present, then works should cease and an ecologist be contacted. Given the above and the small-scale nature of the development, no further recommendations are made with respect to Great Crested Newt.

Should any common and widespread amphibian species (e.g.; Common Frog) be found during the works, these should be removed and carefully placed out of harms way in the hedgerows.

Birds

The site contains habitat that supports nesting birds (hedgerows and trees). The detached garage also has potential to support nesting birds (though no evidence of this was present at the time of survey). It is understood that the hedgerow habitats will

be retained as part of the development and managed appropriately in the long term to ensure nesting habitat is retained for the breeding season, but also that an important winter foraging resource is retained in the form of berry-bearing hedgerows.

Birds nest in the breeding season between March and August. It is therefore recommended that any required vegetation removal works and initial disturbing works to the detached garage are scheduled for outside of the breeding period (ideally September–February inclusive) to avoid any potential conflicts with nesting birds and contravention of the Wildlife and Countryside Act 1981.

Where this is not possible, a check for nesting birds should be undertaken prior to site clearance (though there is a risk that if a nest is present, this could lead to delays in works in the areas occupied by nesting birds).

Other Species

With respect to Hedgehog, clearance of ground cover and brash should take care to avoid harm to Hedgehogs if present (with litters of young born in early to late summer and hedgehogs hibernating through December / early January until late March – weather dependant).

Where present, they should be left undisturbed and allowed to disperse of their own accord. Brash piles should be created in retained areas of the site to provide habitat, especially for during the winter months.

Biodiversity Enhancement Recommendations

The boundary hedgerow to the western aspect of the site should be strengthened by planting of appropriate native species in area where gaps occur. Species could include Holly, Hawthorn, Blackthorn or Hazel (*Corylus avellana*).

In the long-term, appropriate management of the hedgerow should be employed, ensuring an appropriate cutting regime which ensure autumn/winter fruits are retained as a foraging resource for wildlife and cutting during the nesting bird season is avoided. Mid to late-February is a suitable time for hedgerow management which will avoid conflict with nesting birds and bi-annual cutting may be suitable as some species only flower on second year growth, so annual cutting reduces the flowering and subsequent berry crop.

Any new planting of shrubs/flowers associated with hedgerows or around the new garage should incorporate native and 'wildlife-friendly plants' to benefit invertebrates, especially bees. These could include species such as Foxglove (*Digitalis purpurea*), Honeysuckle (*Lonicera periclymenum*), English Bluebell (*Hyacinthoides non-scripta*) – avoiding Spanish or hybrid variants, and Comfrey (*Symphytum officinale*).

Due to the likely presence of foraging bats in the general area, it is recommended that 1 x bat box (Chillon Woodstone Bat boxes or similar) is erected in retained mature trees (e.g; Pear tree within the eastern site boundary) to provide new roost opportunities for bats in the long term and in doing so, potentially enhance the biodiversity of the site.

Bird boxes (x 2 general nest boxes) should be erected in retained mature trees within the wider site to provide enhanced nesting habitat for birds within the site. A Hedgehog box (x 1) would also be beneficial in suitable areas of the site (adjacent to/within hedgerow to the eastern site boundary).

7. Conclusions

In view of the results of the desk and field-based assessment of the site, the site is considered to be of relatively low ecological value in the local context and loss of biodiversity as a result of the proposed development is limited and can be mitigated for and enhanced as part of the proposed development.

The main features of interest are the boundary hedgerows (priority habitat and bird nesting/foraging resource) which will be retained and can be enhanced as part of the development. The detached garage has low potential to support bat roosts and as such will require additional survey and assessment.

The site may support common and widespread amphibians and hedgehog, for basic which precautionary working measures are recommended in order to comply with planning policy and legislative requirements. Enhancement measures in the form of provision of nest boxes, a bat box and advice relating to use of native and wildlife friendly species for planting is provided with the aim of maintaining and enhancing the biodiversity value of the proposed development area and wider site in the long-term.

Where appropriate measures as recommended in the report are adopted, the development will be able to proceed having considered and addressed the necessary legislation and both local and national policy relating to biodiversity conservation.

8. References

- BS 42020:2013 Biodiversity - Code of Practice for Planning and Development.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. Technical Guidance Series. www.cieem.net.
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- Collins, J (Ed). (2016). Bat Surveys for Professional Ecologists - Good Practice Guidelines, 3rd edition. Bat Conservation Trust.
- JNCC (2010). Handbook for Phase 1 Habitat Survey. A technique for environmental audit.
- Joint Nature Conservation Committee, Peterborough.
- <https://localplanmaps.knowsley.gov.uk/documents/knowsley-local-plan-adopted-core-strategy.pdf>
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature
- Multi-Agency Geographic Information Centre: <http://magic.defra.gov.uk/>
- Stace. C. A. (2019). New British Flora of the British Isles. 4th Edition. Cambridge University Press.
- We Know Services (2019) Ecology Survey and Assessment, Alderley, Water Lane, Tarbock Green, Knowsley.

Appendix I: Site Location Plan



Image courtesy of Ordnance Survey accessed via Bing Maps ©Microsoft 2022

Appendix 2: Phase I Habitat Plan

SEE NEXT PAGE

Phase 1 Habitat Plan

Alderley, Tarbock Green

April 2023

Client: Mr Darrin Addams

Key:

-  Hardstanding /Bare ground
-  Amenity Grassland
-  Native Hedgerow (species poor)
-  Existing Buildings
-  Broadleaved Tree
-  Coniferous Tree
-  Main proposed development area



Appendix 3: Site Photos



Detached Garage (proposed for demolition) and surrounding bare ground / hardstanding.



Western hedgerow (with gaps evident).



Canvas covered outdoor swimming pool.



Magnolia tree to east of detached garage



Pile of sandstone blocks



Amenity grassland, Apple tree and brash pile to east of detached garage.

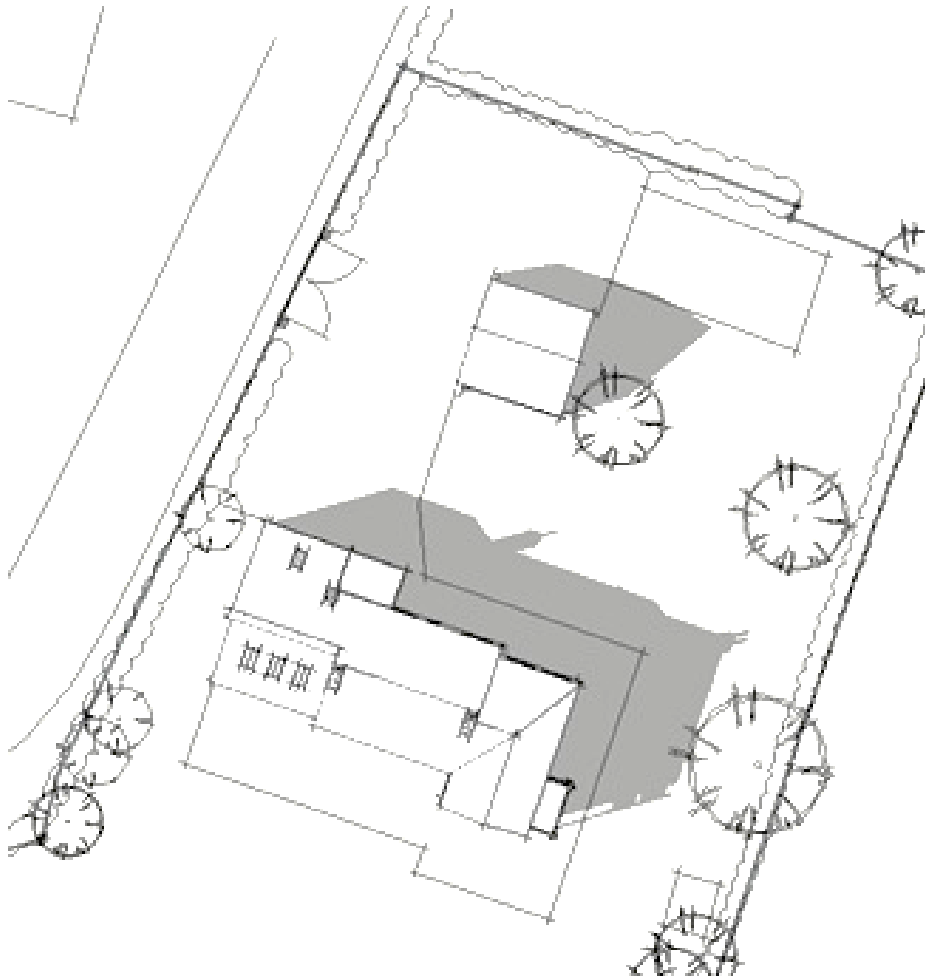
Appendix 4: Frame of Reference for Geographical Value

International and European value	Ramsar Sites, Special Protection Areas, Biosphere Reserves, Special Areas of Conservation. Sites supporting populations of internationally important species. Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP. A regularly occurring, nationally significant population/number of any internationally important species.
National value	SSSIs or non-designated Sites meeting SSSI selection criteria, NNRs, Marine Nature Reserves, NCR Grade 1 Sites. Sites containing viable areas of key habitats identified in the UK Biodiversity Action Plan. Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP). A regularly occurring, regionally or county significant population/number of any nationally important species.
Regional value	Sites containing viable areas of threatened habitats listed in a Regional BAP (or some Natural Areas), comfortably exceeding SINC criteria, but not exceeding SSSI criteria. Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation; A regularly occurring, locally significant number of a regionally important species.
County / Metropolitan	Sites meeting the criteria for county or metropolitan designation (SINC, CWS, etc.). Ancient semi-natural woodland, LNRs or viable areas of key habitat types listed in county BAPs/Natural Areas. Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan “red data book” or BAP on account of its regional rarity or localisation; A regularly occurring, locally significant number of a County/Metropolitan important species.
Local	Undesignated Sites or features considered to appreciably enrich the habitat resource in the District or Borough or within a zone of influence.

	A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation; A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.
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Appendix 5: Proposed Development Plan

Existing



Proposed

