

The Wagtails, Alderbury

Ecological Constraints Survey Report 1215 Heritage Homes

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Introduction

1.1 Introduction

In May 2018 Daniel Ahern was commissioned by Harvey Euridge on behalf of the 1215 Heritage Homes to undertake an ecological constraints survey of The Wagtails in Alderbury, Wiltshire. The purpose of the survey was to provide an assessment of the current ecological conditions and to evaluate the ecological constraints to inform a planning application.

1.2 Site Location and Description

The Wagtails, hereafter referred to as 'the Site', measures approximately 1.28 Ha and is situated in Alderbury in Wiltshire (approximate OS grid reference: SU 191270, Fig 1 below).

The Site is composed of an area of cleared ground within a sider suburban & semi-rural landscape.

Figure 1. Redline outline of the survey site.



1.3 Development Proposals

The proposals include the development of a number of residential dwellings.

1.4 Survey Objectives

The objectives of the ecological assessment comprise three sections:

- Evaluate the conservation status of the Site based on a desktop review that summarises information collated on protected species records and nature conservation designations in the area.
- Undertake an assessment of habitat composition and floristic abundance of the Site, which is derived from a Phase 1 habitat survey.
- Undertake a protected species audit that evaluates the likelihood of protected, or otherwise notable, species occurring on Site.

1.5 Quality Assurance

All terrestrial surveys are led by Ecologists who are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) at the appropriate level. By joining the CIEEM staff sign up to a professional code of conduct.

Methodology

The extended Phase 1 habitat survey was undertaken with reference to the Institute of Environmental Assessment's *Guidelines for Baseline Ecological Assessment* (IEA, 1997) and the Institute of Ecology and Environmental Management's *Guidelines for Preliminary Ecological Appraisal* (IEEM, 2012) and comprised a desk study consultation exercise and walkover field survey.

2.1 Desk Study

A desk study was carried out with the aim of supplementing the field survey results by collating and reviewing existing ecological information relevant to the Site and the local area. The desk study component comprised consultation with statutory and non-statutory nature conservation organisations.

2.1.1 Statutory and Non-Statutory Designated Sites

Defra's 'Magic' interactive map was consulted in order to identify statutory sites of importance for nature conservation, e.g. Sites of Special Scientific Interest (SSSI), from within a 2km radius of the Site. Information on non-statutory sites was gained from the Wiltshire County Council website and the MAGIC website.

2.1.2 Protected Species

The publicly accessible online database the National Biodiversity Network (NBN) Gateway was searched for records of protected and notable species within 2km of the Site; the search radius was extended to 5km for bats.

2.1.3 Wiltshire Biodiversity Action Plan

The local Biodiversity Action Plan (BAP), in this case the Wiltshire BAP (revised 2008) was accessed in order to find information on the habitats and species that have been identified as requiring positive conservation action in the area.

2.2 Phase 1 Habitat Survey

A Phase 1 habitat survey of the Site was conducted on the 13th August 2018 by Daniel Ahern CEnv MCIEEM. The weather conditions were good with no cloud cover. The temperature during the survey was approximately 21°C.

During the survey, dominant plant species were recorded and habitats were classified according to their vegetation types, as identified in the *Handbook for Phase 1 Habitat Survey – A technique for environmental audit* (JNCC, 2010). Target notes (TN) were taken to denote species and habitats of conservation interest and to describe the vegetation in areas that were too small to map. Evidence of any species protected by law was recorded, where appropriate.

The results are presented in the standard Phase 1 habitat survey format with habitat descriptions and a habitat map (see Figure 2, Appendix 2). The presence (if any) of noxious and invasive species such as Japanese knotweed *Fallopia japonica* was also investigated during the field survey.

2.3 Protected Species

The Site was inspected for evidence of, and its potential to support, protected and notable species. Particular attention was given to those species listed under *The Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitat and Species Regulations 2010* (as amended). All areas of the Site were also investigated for signs of badger, in line with standard methodology (English Nature, 2002). Evidence of any current or historical presence of protected species was recorded.

Details of legislation relating to protected species considered relevant to the Site are discussed in Section 4.

2.4 Limitations

The data provided by the online resources were not exhaustive. It is possible that protected species not included in the data search occur within the vicinity of the proposed development Site.

According to the Institute for Environmental Assessment (IEA, 1995), Phase 1 surveys can be undertaken all year round. Whilst certain protected species surveys need to be undertaken during particular months of seasons, it is possible, through a Phase 1 habitat survey, to identify any habitats on Site where protected species may potentially be present.

In the event that suitable habitats are identified, it may be necessary to undertake further seasonal surveys to fully investigate the potential for protected species. In the event that no suitable habitats or features are identified, a Phase 1 habitat survey is sufficient to determine the potential impacts associated with a proposed development.

Results

3.1 Desk Study

3.1.1 Statutory and Non-Statutory Designated Sites

Two statutory designated sites were identified during the desk-based search, the results are set out in Table 1 below.

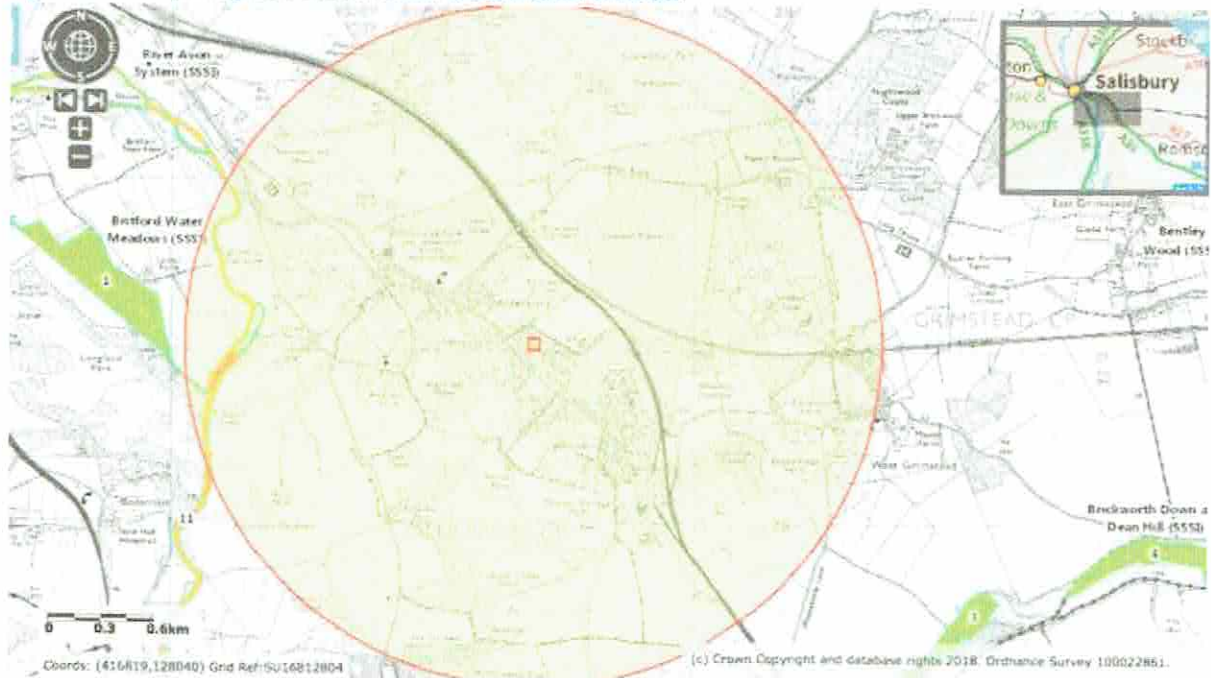
Table 1: Statutory and Non-Statutory Designated Sites.

Name	Area (ha)	Designation	Description	Distance & direction from the Site
Statutory sites				
River Avon	467.58	SAC, SSSI	River system	1546m to the west
Britford Water Meadows	18.4	SSSI	Water meadows	1920m to the west

Key

SAC – Special Area of Protection, SSSI – Site of Special Scientific Interest

Figure 2: Statutory Designated Sites in relation to a 2km buffer of the site.



3.1.2 Protected Species

Records of protected species within 5km of the Site are presented in Table 2 below recorded within the last 30 years.

Table 2: Protected Species Records within 5km of the Site

Common name	Scientific name	Number of records	Proximity to the centre point of the Site (m)	Status / protection
Amphibians and reptiles				
Great crested newt	<i>Triturus cristatus</i>	7	Within 5km of Site	W&CA 1981, UKBAP
Common lizard	<i>Zootoca vivipara</i>	2	Within 5km of Site	W&CA 1981, UKBAP
Adder	<i>Vipera berus</i>	1	Within 5km of Site	W&CA 1981, UKBAP
Grass snake	<i>Natrix natrix</i>	2	Within 5km of Site	W&CA 1981, UKBAP
Sand lizard	<i>Lacerta agilis</i>	1	Within 5km of Site	W&CA 1981, UKBAP
Slow worm	<i>Anguis fragilis</i>	1	Within 5km of Site	W&CA 1981, UKBAP
Smooth snake	<i>Coronella austriaca</i>	2	Within 5km of Site	W&CA 1981, UKBAP
Terrestrial mammals				
Badger	<i>Meles meles</i>	5	Within 5km of Site	PBA
Dormouse	<i>Muscardinus avellanarius</i>	13	Within 5km of Site	W&CA 1981, BAP
Barbastelle	<i>Barbastella barbastellus</i>	1	Within 5km of Site	W&CA 1981, Hab Regs
Brandt's bat	<i>Myotis brandtii</i>	6	Within 5km of Site	W&CA 1981, Hab Regs
Common pipistrelle bat	<i>Pipistrellus pipistrellus</i>	4	Within 5km of Site	W&CA 1981, Hab Regs
Daubenton's bat	<i>Myotis daubentonii</i>	5	Within 5km of Site	W&CA 1981, Hab Regs
Dormouse	<i>Muscardinus avellanarius</i>	220	Within 5km of Site	W&CA 1981, Hab Regs

Common name	Scientific name	Number of records	Proximity to the centre point of the Site (m)	Status / protection
Greater Horseshoe bat	<i>Rhinolophus ferrumequinum</i>	4	Within 5km of Site	W&CA 1981, Hab Regs
Lesser Horseshoe bat	<i>Rhinolophus hipposiderus</i>	2	Within 5km of Site	W&CA 1981, Hab Regs
Natterer's bat	<i>Myotis nattereri</i>	1	Within 5km of Site	W&CA 1981, Hab Regs
Noctule	<i>Nyctalus noctula</i>	2	Within 5km of Site	W&CA 1981, Hab Regs
Otter	<i>Lutra lutra</i>	5	Within 5km of Site	W&CA 1981, Hab Regs
Soprano pipistrelle bat	<i>Pipistrellus pygmaeus</i>	3	Within 5km of Site	W&CA 1981, Hab Regs

Key

W&CA 1981 = The Wildlife and Countryside Act 1981 (as amended)

Hab Regs = Conservation of Species & Habitat Regulations 1994 (as amended)

PBA = Protection of Badgers Act 1992

3.1.3 Wiltshire Biodiversity Action Plan

The Wiltshire BAP (Revised 2008) includes twelve Habitat Action Plans (HAPs) and one Species Action Plan (SAP) for bats.

The SAP for bats has some relevance for this site.

3.2 Phase 1 Habitat Survey

3.2.1 Habitats on Site

Descriptions of the habitats recorded on Site are provided below. A Phase 1 habitat map is included as Figure 2, Appendix 2. Target notes (TN) are outlined below in Table 3 and mapped on Figure 2. Photographs are provided at the end of the document in Appendix 1 and a plant species list provided in Appendix 3.

3.2.1.1 A 4 Recently felled woodland

Recently felled mixed woodland was recorded across the site.

3.2.1.2 B 6 Poor semi-improved grassland

Small patches of poor, semi-improved grassland were recorded occasionally within the site

3.2.1.3 J 2 Boundaries

The boundary of the site was partially defined by close board fencing.

3.2.1.4 J 3.6 Buildings

There was a single newly erected shed on Site.

3.2.1.5 J 4 Bare ground

The habitat recorded throughout the site was bare ground, mainly compacted earth with occasional patches of hardcore.

3.2.1.6 Target Notes

Target notes made during the survey are detailed in Table 3 below.

Table 3: Target Notes

Target note	Comments
1	Building – Shed – a timber shed. No bat potential
2	Recently felled woodland – several piles of felled timber were recorded. They appeared recently established and were composed of the trunks of mature trees. As such they offered no reptile potential as reptile hibernacula.
3	Tall ruderals – stand of common nettle <i>Urtica dioica</i> around a thin area of wood chip
4	Poor, semi-improved grassland – recorded in small fragmented patches
5	Bare ground – hard standing, compacted earth

3.3 Protected Species

The Site was considered to have limited potential to support protected species; these are described below. A summary of relevant legislation is included in Section 4.

3.3.1 Badgers

There was no evidence of badgers recorded during the Site visit. Badgers have been recorded within 5km of the Site.

3.3.1 Bats

The only building on site was assessed as having no bat potential. Trees and gardens adjacent to the site may have potential for bats to forage and roost.

3.3.2 Breeding Birds

The only building on site was assessed as having no bird nesting potential. The almost total absence of vegetation on site suggests it is sub-optimal for birds. Trees and gardens adjacent to the site may have potential for birds to forage and nest.

3.3.3 Dormice

No habitat with significant dormouse potential was recorded on site. Significant numbers of dormice have been recorded within 5km of the Site.

3.3.4 Great Crested Newts

No standing water bodies were recorded on Site or within 500m of it. The predominant habitats on Site, bare ground, is sub-optimal habitat for this species. Low numbers of GCN have been recorded within 5km of the Site.

3.3.5 Reptiles

The predominant habitats on Site, bare ground is sub-optimal for this group of species. The occasional areas of poor, semi-improved grassland and tall herb were fragmented.

Slow worms, common lizard, grass snake and adder have been recorded within 5km of the Site.

3.4 Invasive Non-Native Species (INNS)

No invasive non-native species were recorded during the survey.

Legislation and Policy

3.5 Legislation

3.5.1 Bats

All species of bat found in the UK are listed under Schedule 5 of *The Wildlife and Countryside Act 1981* (as amended) and are afforded protection under Section 9(1), Section 9(4)(b&c) and Section 9(5) of the Act. Under this legislation, a person is guilty of an offence if he intentionally or recklessly:

- Kills or injures any bat;
- Disturbs any bat while it is occupying a structure or place which it uses for shelter or protection; or
- Obstructs access to any structure or place which any bat uses for shelter or protection.

Bats are afforded additional protection through their inclusion on Schedule 2 of *The Conservation of Species and Habitats Regulations 2010* (as amended). Under Part 3 of this legislation, a person is guilty of an offence if he:

- Deliberately captures, injures or kills a bat;
- Deliberately disturbs a bat; or
- Damages or destroys a bat breeding site or resting place.

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, breed or reproduce, rear or nurture their young, migrate or hibernate. It also includes any disturbance likely to affect significantly the local distribution or abundance of the species. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to bats, such as flight corridors and foraging areas

3.5.2 Badgers

Badgers *Meles meles* are protected under *The Protection of Badgers Act 1992*. Under this legislation a person is guilty of an offence if they kill injure or take a badger or interfere with a badger sett. Interference to a badger sett includes:

- Damage to a badger sett or any part of it;
- The destruction of a badger sett;
- Obstruction of the access to, or any entrance of, a badger sett;
- Disturbance to a badger whilst occupying a sett.

The term 'badger sett' is usually defined as the system of tunnels and chambers in which badgers live, including their entrances and immediate surrounds. The 1992 Act specifically defines a sett as "*any structure or place that displays signs indicating current use by a badger*". Natural England takes this to mean seasonally used setts and consequently any sett that has been occupied at any point during the previous twelve months.

3.5.3 Breeding Birds

Wild birds, their nests and eggs, are afforded protection under Section 1(1) of *The Wildlife and Countryside Act 1981* (as amended). Under this legislation, a person is guilty of an offence if he intentionally:

- Kills, injures or takes any wild bird;
- Takes, damages or destroys the nest of a wild bird included in Schedule ZA1;
- Takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- Takes or destroys an egg of any wild bird.

3.5.4 Dormice

Dormice are given full protection under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. Protection to the species is also afforded by Schedule 2 of the Conservation (Natural Habitats &c) Regulations, 1994, making the hazel dormouse a European Protected Species. These two pieces of legislation operate in parallel, although there are some small differences in scope and wording. Under the provisions of Section 9 of the Wildlife & Countryside Act, it is an offence to:

- Intentionally kill, injure or take a dormouse;
- Possess or control and 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.

Schedule 2 of the Conservation (Natural Habitats &c) Regulations, 1994 make it an offence to:

- Deliberately capture or kill a dormouse;
- Deliberately disturb a dormouse;

- Damage or destroy a breeding site or resting place of a dormouse;
- Keep transport, sell or exchange, or offer for sale or exchange a live or dead dormouse or any part of a dormouse.

The dormouse is a Priority Species under the UK Biodiversity Action Plan (UK BAP), and has been adopted as a Species of Principal Importance in England under section 41 of the NERC Act 2006 (section 42 in Wales).

3.5.5 Great Crested Newts

Great crested newts (GCN) *Triturus cristatus* are listed under Schedule 5 of *The Wildlife and Countryside Act 1981* (as amended) and are afforded protection under Section 9(1), Section 9(4)(b&c) and Section 9(5) of the Act. Under this legislation, a person is guilty of an offence if he intentionally or recklessly:

- Kills or injures a GCN;
- Disturbs any GCN while it is occupying a structure or place which it uses for shelter or protection; or
- Obstructs access to any structure or place which any GCN uses for shelter or protection.

GCN are afforded additional protection through their inclusion on Schedule 2 of *The Conservation of Species and Habitats Regulations 2010* (as amended). Under Part 3 of this legislation, a person is guilty of an offence if he:

- Deliberately captures, injures or kills a GCN;
- Deliberately disturbs a GCN;
- Deliberately takes or destroys the eggs of a GCN; or
- Damages or destroys a GCN breeding site or resting place.

This legislation covers all life stages and includes both aquatic and terrestrial habitats.

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, breed or reproduce, rear or nurture their young, migrate or hibernate. It also includes any disturbance likely to affect significantly the local distribution or abundance of the species.

3.5.6 Reptiles

The four more widespread reptile species (adder *Vipera berus*, common lizard *Zootoca vivipara*, grass snake *Natrix natrix*, slow worm *Anguis fragilis*) are listed under Schedule 5 of *The Wildlife and Countryside Act 1981* (as amended) and are afforded protection under Section 9(5) of the Act. Under this legislation, a person is guilty of an offence if he:

- Intentionally or recklessly kills or injures any reptile.

Discussion and Recommendations

3.6 Discussion

3.6.1 Overview

The desk-based assessment recorded two statutory conservation sites within 2km of the Site.

Because of their spatial relationship with the proposed development and its nature, it is not believed that there will be a discernible impact by the proposed works provided construction best practice guidelines for pollution prevention control are adhered to.

3.7 Recommendations

3.7.1 Protected Species

The habitats recorded on Site supported by the data returned from the desk-based assessment suggest the Site has very little potential to support any protected species, see section 3.3 above. Those species which may potentially be impacted by the proposed development are discussed below.

- Bats

Following the assessment of the buildings as having no bat roost potential no further surveys are recommended.

- Breeding birds

Due to the absence of any vegetation on site and the sub-optimal characterisation, further survey work is not considered necessary.

- Dormice

The absence of suitable habitat on site results in the site being sub-optimal for dormice, no further survey work is recommended.

- Reptiles

No signs of any reptile species were recorded during the survey. The site is characterised as being sub-optimal for this group due to the fragmented nature of any areas of vegetation and the high levels of disturbance from machinery. No further survey work is recommended.

3.7.2 Habitat enhancement

To encourage bat and bird species to use the proposed development, raised tiles should be installed in the roof and bird boxes throughout the site.

The siting and type of lighting installed as part of the proposed development should minimise any potential to deter bats from taking up use of the suggested habitat enhancements above.

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Appendices

Appendix 1 – Photographs



Photograph 1 – The eastern aspect of the site



Photograph 2 – The southern aspect of the site

Appendix 2 - Figures

Figure 2 – Phase 1 Habitat Map

See separate document

Appendix 3 – Species List

The following species were recorded during the survey;

Common name	Latin name
Annual meadow grass	<i>Poa annua</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Nettle	<i>Urtica dioica</i>
False oats grass	<i>Arrenatherum elatius</i>
Cocks spur	<i>Dactylis glomerata</i>
Common dandelion	<i>Taraxacum officinale</i>
Bracken	<i>Pteridium aquilinum</i>