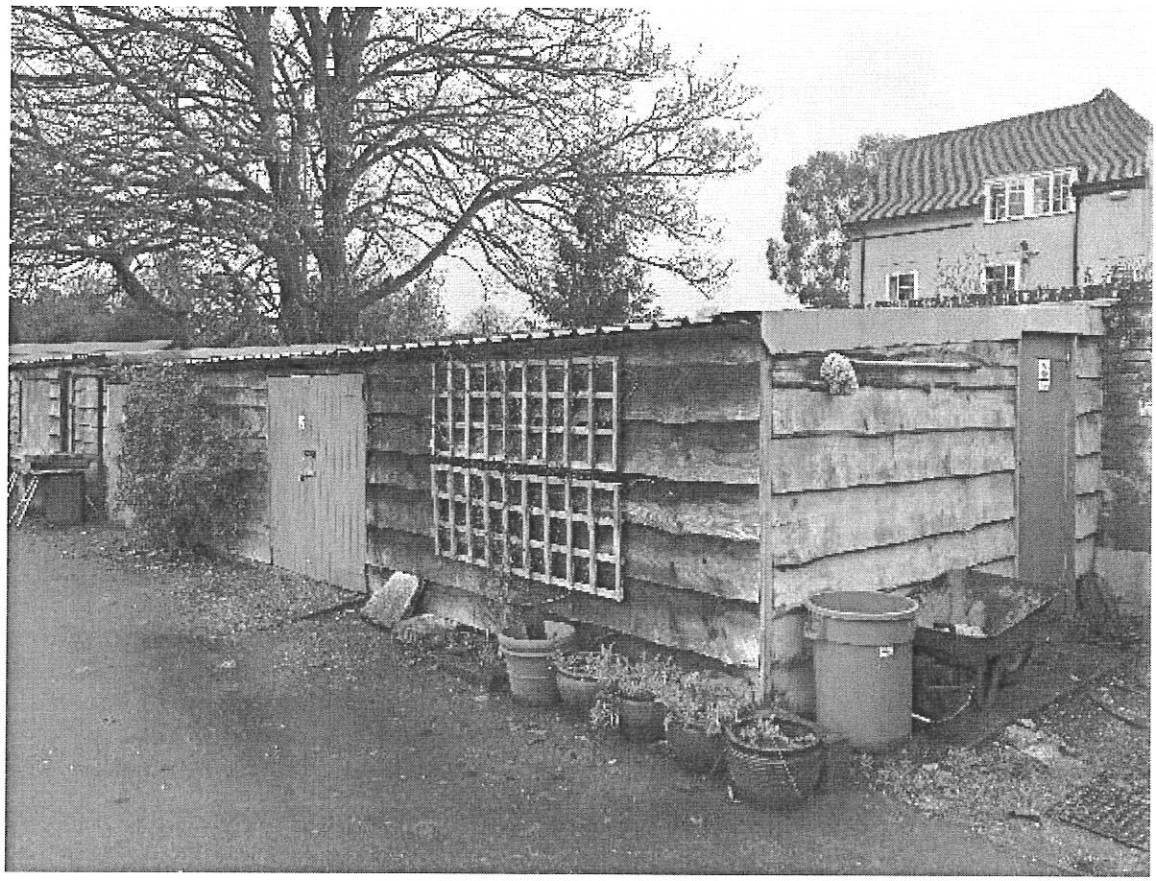
Daniel Ahern Ecology

Land and Buildings at Salisbury Cathedral School, Salisbury

Ecological Appraisal Survey Report Salisbury Cathedral School

March 2021



Document Control

Document:	Ecological Appraisal Survey Report
Project:	Salisbury Cathedral School
Client:	Salisbury Cathedral School
Job number:	4256
Date of issue:	March 2021
Prepared by:	Daniel Ahern Home Farm House Humber Lane Tidworth Email: info@danielahernecology.co.uk Telephone: 01980 842709
Project manager:	Daniel Ahern
Field team:	Daniel Ahern

Copyright: Daniel Ahern Ecology Ltd.

This report is intended for the commissioning party only and should not be copied or reproduced in any way without prior written permission from Daniel Ahern Ecology Ltd.

This report has been prepared for the sole use of the client. Any third party referring to this report or relying on the information contained herein, does so entirely at their own risk.

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living creatures are capable of migration and whilst protected species may not have been located during the survey duration, their presence may be found on site at a later date.

The views and opinions contained within the document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to works.

Contents

Executive summary 4
Introduction 5
1.1 Introduction 5
1.2 Site Location and Description 5
1.1 Development Proposals 5
1.2 Survey Objectives 6
1.3 Quality Assurance 6
Methodology 6
2.1 Desk Study 6
2.2 Phase 1 Habitat Survey 7
2.3 Protected Species 7
2.4 Limitations 8
Results 9
3.1 Desk Study 9
3.2 Phase 1 Habitat Survey 9
3.3 Protected Species 10
3.4 Invasive Non-Native Species (INNS) 11
Legislation and Policy 11
3.5 Legislation 11
Discussion and Recommendations 14
3.6 Discussion 14
3.7 Recommendations 14
References 15
Appendices 15
Appendix 1 – Photographs 15
Appendix 2 - Figures 16
Appendix 3 – Species List 16

Executive summary

- In January 2021, Daniel Ahern Ecology Ltd was commissioned by Benchmark on behalf of the Salisbury Cathedral School to undertake an ecological appraisal of two discrete parcels of land at the Salisbury Cathedral School. The survey was completed on the 28th January 2021.
- No Special Areas of Conservation relevant to Annex II bat species were identified within 2km of the Site during the desk-based data search. No records for bats or great crested newts were recorded during the desk based data search.
- The habitat diversity recorded during the Site survey was low, with buildings, bare ground and amenity grassland being predominant.
- The habitats recorded on Site supported by the data returned from the desk-based assessment suggest the Site has NEGLIGIBLE to MODERATE potential to support protected species, see section 3.3.
- A single bat emergence survey of three of the four buildings recorded in Site 1 is recommended. Mitigation & habitat enhancement recommendations will be made based on the results of the activity survey.
- Its recommended that a Construction Method Statement (CMS) is prepared.
- It is recommended that a bat lighting plan should be incorporated into the scheme design. This will set out the nature, siting and orientation of lighting across the Site, see section 3.7.1

Introduction

1.1 Introduction

In January 2021, Daniel Ahern Ecology Ltd was commissioned by Benchmark on behalf of the Salisbury Cathedral School to undertake an ecological appraisal of two discrete parcels of land and buildings at the Salisbury Cathedral School. The purpose of the survey was to provide an assessment of the current ecological conditions and to evaluate the ecological constraints in order to inform development proposals.

1.2 Site Location and Description

The parcels of land, hereafter referred to as Site 1 and Site 2, measure approximately 0.17 ha and are situated in central Salisbury immediately next to the Cathedral (approximate OS grid reference: SU 144293), see Fig. 1 below.

The Site is composed of parts of a school. The landscape is predominantly urban with areas of greenspace.

Figure 1. Redline outline of the survey sites. Sites 1 & 2 indicated.



1.1 Development Proposals

The proposal is to site additional classrooms.

1.2 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.

1.3 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 MAGIC website.

2.1.2 Protected Species

Defra's 'Magic' interactive map was consulted in order to identify the location of European Protected Species Licences (EPSL) within 2km of the Site.

2.1.3 The Natural Environment in Wiltshire – Landscape Biodiversity Areas

The local Biodiversity Action Plan (BAP), in this case Wiltshire Landscape Biodiversity Areas (revised 2013) 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 28th January 2021 by Daniel Ahern CEnv MCIEEM. The weather conditions were poor with steady light rain. The temperature during the survey was approximately 8^{0}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.

The MAGIC website was consulted for records of European Protected Species Licences (EPSL) relating to protected species, specifically bats and great crested newts (gcn).

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

Bats:

Any structure, building, tree etc, which may be suitable for bats to roost in was assessed following the current Bat Conservation Trust (BCT) Bat Survey Guidelines (2016).

Suitability	Roosting Habitat
NEGLIGIBLE	Negligible roosting features on site likely to be used by roosting bats
LOW	A structure with one or more potential roost sites which could be used by bats opportunistically. However these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by a large number of bats (ie unlikely to be suitable for maternity or hibernation)

	A tree with sufficient size and age to contain potential roost features (prfs) but with none seen from the ground or features seen only with very limited roosting potential.
MODERATE	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection and surrounding habitat but unlikely to support a roost of high conservation status.
HIGH	A structure or tree with one or more potential roost sites that are obviously suitable for use by large numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Great crested newts (gcn):

The Amphibian and Reptile Group (ARG) Habitat Suitability Index (HSI) was used to assess the potential for gcn to be using any still waterbodies recorded within 250m of the Sites. This produces a score between 0 and 1, see below.

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

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

Records of Special Areas of Conservation relevant to Annex II bat species within 10km of the Site are presented in Table 1 below.

Table 1: Statutory and Non-Statutory Designated Sites.

Name	Area (ha)	Designation	Description	Distance & direction from the Site
Statutory sites				
None	N/A	N/A	N/A	N/A

3.1.2 Protected Species

Records of bat EPSL within 2km of the Site are presented in Table 1 below recorded within the last 30 years.

Table 2: Bat EPSL Records within 2km of the Site

EPSL Reference	Species named	Scientific name
None	N/A	N/A

3.1.1 The Natural Environment in Wiltshire – Landscape Biodiversity Areas

The Wiltshire Biodiversity Strategy 2013 includes twenty-two Priority habitats. The only one of these habitats recorded within Site 1 and Site 2 was:

- Built environment

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 1.3.1 Parkland and Scattered Trees

On the western side of the wall in site 1 four individual, deciduous trees were recorded. Due to their immature stage all were assessed as having NEGLIGIBLE bat roost potential. Species included bird's eye cherry *Prunus padus* and sycamore *Acer pseudoplatanus.*

3.2.1.2 B 6 Poor, semi-improved grassland

The majority of Site 1, west of the wall was composed of this habitat. The predominant species recorded included false oats grass *Arrhenatherum elatius,* perennial rye grass *Lolium perenne* and annual meadow grass *Poa annua*.

3.2.1.2 J 1.2 Amenity grassland

A large part of the eastern side of Site 1 was covered by an area of well-managed, regularly mown grassland. Sub optimal habitat for all species except for breeding birds to forage.

3.2.1.3 J 3.6 Building

Four buildings were recorded along the western extent of Site 1. Two were single storey, timber clad with monopitch, corrugated metal sheet covered roofs. They were used as workshops and storage buildings. The third was a brick built, single storey workshop and toilet. It had a flat, tar paper over plywood roof. The last building was located in the wildlife garden and was a timber shed.

Buildings were recorded adjacent to all sides of Site 2. They were not assessed as the proposed works have no potential to impact them.

3.2.1.3 J 3.6 Bare ground

Areas of bare ground, tarmac paths, were recorded in Site 1 and site 2.

3.2.1.4 G 1.1 Standing water – eutrophic

Two standing waterbodies were recorded within 250m of Sites 1 & 2, waterbodies 1 & 2. Waterbody 1 was a small lake located to the southern west of the survey area, waterbody w was a small wildlife pond located at the northern end of the wildlife garden on the west of the wall in Site 1. HSI scored these at 0.71 and 0.47 respectively. These are discussed in section 3.3.5.

3.2.1.5 Target Notes

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

Table 3: Target Notes

Target note	Comments
1	Building – timber clad with LOW bat roost potential
2	Building – timber clad with LOW bat roost potential
3	Building – brick built with LOW bat roost potential
4	Building – timber shed with NEGLIGIBLE bat roost potential

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.

3.3.2 Bats

Three of the buildings recorded on Site 1 were assessed as having LOW potential for bats due to the number of prf recorded. The fourth was assessed as having NEGLIGIBLE potential for bats due to an absence of prf.

3.3.3 Breeding Birds

The Sites surveyed were sub-optimal for bird nesting and offered LOW foraging potential. Common passerine species were recorded during the survey, utilising the Sites and commuting to and from it to adjacent habitats.

3.3.4 Dormouse

The Sites have NEGLIGIBLE potential for dormouse.

3.3.5 Great Crested Newts

Two standing water bodies were recorded within 250m of the Sites, waterbody 1& waterbody 2. Waterbody 1 was the largest and located c120m to the south west of Site 1. Waterbody 2 was a small wildlife pond which was located c10m from the western edge of Site 1.

Using the ARG HSI tool, Waterbody 1 was assessed as having GOOD gcn potential and Waterbody 2 was assessed as having POOR gcn potential.

The habitats recorded throughout Sites 1 & 2 were suboptimal for gcn.

3.3.6 Otter

No habitat with significant otter potential was recorded on either Site. NEGLIGIBLE potential for otter.

3.3.7 Reptiles

The majority of habitats recorded on Site 1 & 2 were sub-optimal for members of this group. The northern section of the wildlife garden in Site 1 had some potential for this group but due to its disconnected nature was downgraded to NEGLIGIBLE potential for this group.

3.3.8 Water vole

No habitat with water vole potential was recorded on either Site 1 or 2.

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 no statutory conservation sites within 2km of the Site.

No protected species records were returned during the desk based assessment.

The habitat diversity recorded during the Site survey was low, with buildings, bare ground and amenity grassland being predominant.

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 negligible to moderate potential to support protected species, see section 3.3 above.

- A single bat emergence survey of three of the buildings recorded in Site 1 is recommended. This should take place between May and late August to provide a robust understanding of the presence/absence of bats.
- Mitigation & habitat enhancement recommendations will be made based on the results of the activity survey.
- Its recommended that a Construction Method Statement (CMS) is prepared. This should include clear exclusion methods for gcn to ensure that there is no potential for ingress to Sites 1 & 2 and any access roads.
- It is recommended that a bat lighting plan should be incorporated into the scheme design. This will set out the nature, siting and orientation of lighting across the Site.

References

ARG (2010) Great Crested Newt Habitat Suitability Index. Advice Note 5.

CIEEM (2012) *Guidelines for Preliminary Ecological Appraisal*; IEEM

Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition) Bat Conservation Trust, London

Defra – http://magic.defra.gov.uk/website/magic/ [Accessed: 21/02/21]

HMSO (1981) The Wildlife and Countryside Act (as amended); London

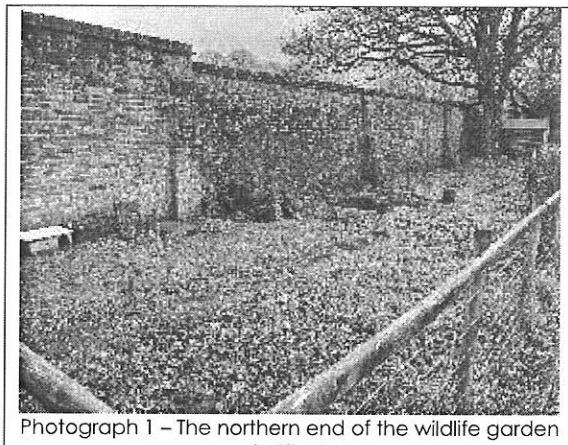
HMSO (2010) The Conservation of Habitats and Species Regulations (as amended); London

JNCC (2010) *Handbook for Phase 1 Habitat Survey – a technique for environmental audit*; JNCC, Peterborough

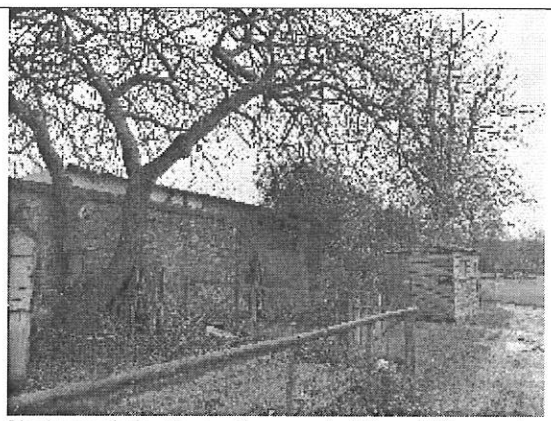
Rose, F. (1981) *The Wild Flower Key*; Frederick Warne

Appendices

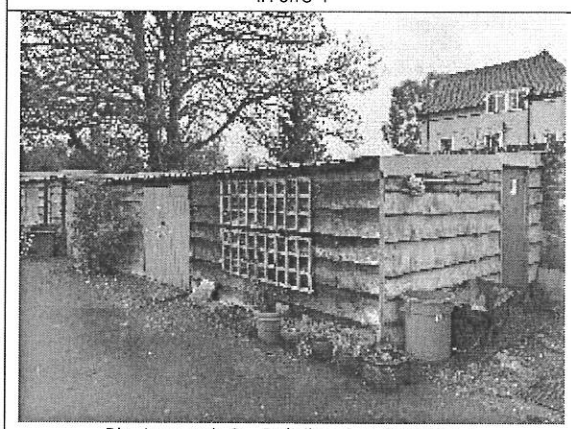
Appendix 1 – Photographs



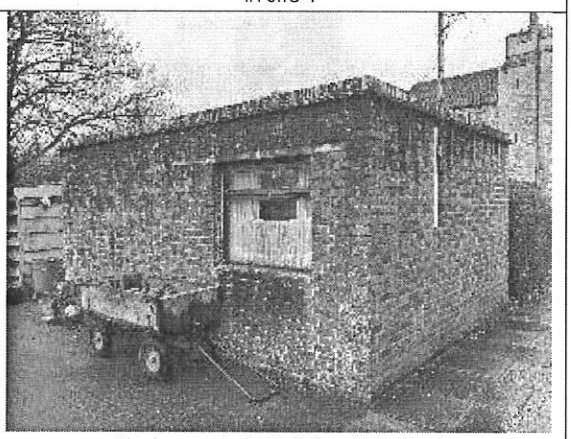
Photograph 1 – The northern end of the wildlife garden in Site 1



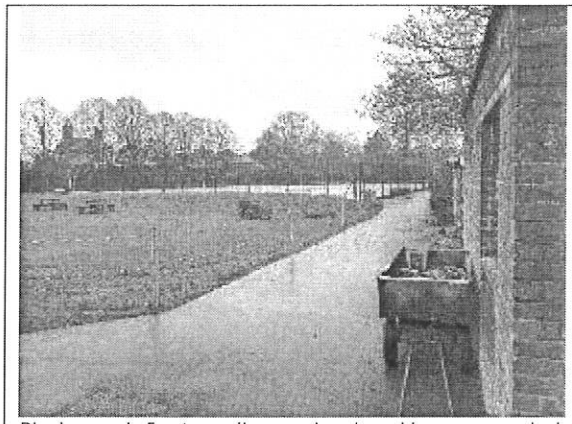
Photograph 2 – The southern end of the wildlife garden in Site 1



Photograph 3 – Building 1 & 2 at Site 1



Photograph 4 – Building 3 at site 1



Photograph 5 – Amenity grassland and bare ground at Site 1



Photograph 6 – Amenity grassland at Site 2. The buildings are outside of the Site boundary

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
False oats grass	*Arrhenatherum elatius*
Annual meadow grass	*Poa annua*
Silverweed	*Argentina anserina*
Ribwort plantain	*Plantago lanceolata*
Creeping buttercup	*Ranunculus repens*
Dandelion	*Taraxacum officinale*
Ivy	*Hedera helix*
Perennial rye grass	*Lolium perenne*