

PRELIMINARY ECOLOGICAL APPRAISAL

WILT18 – STOCKHAM MARSH, WILTSHIRE

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A NEW PLAN FOR
THE PLANET

 ENVIRONMENT
BANK

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Executive Summary

This report outlines the preliminary ecological appraisal to support an application for full planning permission for the creation of 12 ponds, 2 ditches and a culvert to increase biodiversity interest within a Habitat Bank at Stockham Marsh Spirthill, near Lyneham (the Site) (EBL Reference: WILT18).

This ecological assessment was undertaken to establish a baseline for the Site, assess the potential for the presence of protected and/or notable species and determine the potential impact the proposed works on these receptors.

The whole Habitat Bank comprises 67.80 ha of predominantly arable land at Stockham Marsh bordered by hedgerows. The cade Burn runs through the centre of the Site with pockets of scrub and woodland located throughout. The creation of these waterbodies within a network of supporting semi-natural habitats will provide an off-Site solution to Biodiversity Net Gain.

The proposed works include the excavation of soil and relocation of spoil to create the waterbodies as well as installation of a small section of piping to allow continued access to a footpath.

It is considered unlikely that there will be any impact on designated sites, priority habitats and/or protected and notable species from the proposed works. However, as a precautionary measure, works will be conducted under RAMS during waterbody creation.

It is also unlikely that the works will have any impact upon protected and notable species outside of the Site. The impacts of the habitat creation will short term and a similar scale to those from the current agricultural practices.

Standing water is a priority habitat listed on the Wiltshire LBAP and once created, the new habitats have the potential to benefit priority and/or notable species including invertebrate species, Great Crested Newt *Triturus cristatus*, Skylark *Alauda arvensis*, Linnet *Linaria cannabina*, bat species and Otter *Lutra lutra*. The proposed habitats will also enhance the ecological value of the Site for several other declining bird, mammal and reptile species such as: Brown Hare *Lepus europaeus*, Grass Snake *Natrix helvetica*, Song Thrush *Turdus philomelos*, Yellowhammer *Emberiza citrinella*, Yellow wagtail *Motacilla flava* and Corn bunting *Emberiza calandra*, which is known to occur in parts of Wiltshire in relatively high densities.

1. Overview

1.1 Introduction

- 1.1.1 This Preliminary Ecological Appraisal (PEA) report has been prepared by Environment Bank Limited (EBL) to accompany an application for full planning permission for the creation of 12 Ponds (Priority habitat), two ditches and a culvert to increase biodiversity value within a Habitat Bank at Stockham Marsh, Wiltshire (EBL Reference: WILT18), hereafter referred to as the Site.
- 1.1.2 This report aims to:
- Outline the approach to data collection undertaken for the Site and surrounding landscape;
 - Provide an overview of the ecological baseline and context of the Site;
 - Identify ecological constraints associated with the project; and
 - Identify any mitigation measures likely to be required.

1.2 Accompanying Information

- 1.2.1 This Preliminary Ecological Appraisal Report forms part of a suite of documents which together provide a full breakdown of the biodiversity delivery at the Site:
- Planning statement;
 - Flood Risk Assessment;
 - Agricultural nature context; and
 - Waterbody specification.

1.3 Site Description

- 1.3.1 The Site is located at Stockham Marsh to the north of Spirthill village, approximately 2.5 km south-west of Lyneham and is centred at grid reference ST 9990 7671. The Site is 67.80 ha and predominantly comprises arable cropland and temporary grass ley, in rotation, bordered by hedgerows. A small stream, the Cade Burna, flows through the Site.
- 1.3.2 Within the wider landscape of the Site, there are pockets of woodland and hedgerows. The proposed Habitat Bank will improve connectivity to some of these features outside of Stockham Marsh and benefit species within the wider landscape.
- 1.3.3 The Site boundary is presented on Figure 1.

1.4 Proposed works

- 1.4.1 The design and work specifications for the proposed waterbodies are detailed in full within the accompanying Waterbody Specification.
- 1.4.2 The ponds (2.95 ha) and ditches (540 m) are proposed within arable fields of cereal crop and Temporary grass and clover ley, in arable rotation. The culvert will be approximately 30 m in length and will be installed to facilitate continued access to an

existing footpath, which regularly floods. Following the waterbody creation works, the fields will be enhanced to a mosaic of Other neutral grassland. Lowland meadows Mixed scrub and Other broadleaved woodland.

- 1.4.3 Waterbody creation works (hereafter referred to as 'proposed works') may entail vegetation cutting prior to the commencement of works. The waterbodies will be excavated (removing topsoil and potentially some subsoil) using machinery appropriate to the scale of works, with some manual digging in shallow areas, if required. Spoil generated will be eventually disturbed within the proposed scrub and woodland areas outside of Flood Zones 2 and 3. Where appropriate, south-facing scrub bunds may be created suitable for basking reptiles and invertebrates. It is anticipated works will take approximately two to four weeks, dependent on ground conditions.
- 1.4.4 All works will adhere to general pollution prevention principles and guidance (PPG5, Environment Agency) such as;
- plant and wheel washing is carried out in a designated area of hard standing at least 10 metres from any watercourse or surface water drain and;
 - removing silt and settled solids regularly from the area, preventing run-off into the watercourse, no negative impacts to the designated sites are anticipated.
- 1.4.5 The remaining habitats within the Site boundary will not be directly impacted by the proposed works.

2. Legislative and Policy Context

- 2.1.1 A review of planning guidelines, international commitments, legislation and planning policies relevant to the protection, conservation and enhancement of nature conservation interests was undertaken. Specific legislation and local policy taken into account as part of this appraisal is provided in Appendix A.

3. Data Collation Methods

3.1 Desktop Study

- 3.1.1 Ecological information relating to the Site was collated from the sources listed in Table 1 below. This collated data gives a useful indication of the distribution and abundance of ecological receptors at a given locale. In addition to statutory protected sites and relevant policy, consideration has also been made regarding the presence of protected or otherwise notable species in order to ensure legislative and policy compliance, as well as informing habitat creation prescriptions and management measures.

Table 1: Sources of information

Source of information	Nature of information
Magic Map	Statutory designated wildlife sites (Ramsar and National Site Network sites) within 10 km Other statutory designated wildlife sites of national to regional importance within 5 km Natural England licences within 2 km of the Site Habitats of value to biodiversity on and within 1 km of the Site
Land Manager	Site history information generated from a standard Environment Bank questionnaire issued to the Land Owner at registration and through ongoing discussion
Wiltshire and Swindon Biological Records Centre (WSBRC)	Non-statutory designated wildlife sites of local importance within 1km Ecological network maps Protected species records within 1 km Species include those listed under the following: - European Protected Species (EPS) - Habitats and species directive Annex 2/Annex 4/Annex 5 (HSD.2/4/5); - Birds Directive Annex 1 (BD1); - Wildlife and Countryside Act Schedule 1/Schedule 5/Schedule 8 (WCA.Sch1/Sch8/Sch5) - Natural Environment & Rural Communities Act 2006 - Species of Principal Importance in England (Sect.41); - The Conservation (Natural Habitats, &c.) Regulations 1994 - Schedule 2/Schedule 4 (HabsRegs.2/4); - Red and Amber Listed Birds of Conservation Concern (BoCC.Red/BoCC.Amber); - Protection of Badgers Act (1992) (PBA); - UK Biodiversity Action Plan priority species (UKBAP); - IUCN Red Data List Great Britain – Data Deficient/Lower risk near threatened/Vulnerable (RLGB.DD/Lr(NT)/VU); - Nationally Notable, Nationally Notable A and Nationally Notable B species (N/Na/Nb) - County importance: species of importance to Wiltshire
Wiltshire Core Strategy 2015-2026	Relevant policies
Wiltshire Core Strategy Consultation (2012)	Topic paper 5: Natural Environment

Source of information	Nature of information
Wiltshire Housing Site Allocations Plan (adopted 2020)	Land allocations
GIS	Ordnance & aerial survey mapping and satellite photography
Biodiversity South West	South West Nature Map
Wiltshire Biodiversity Action Plan 2008	Local Biodiversity Action Plan (LBAP) describing priority habitats and species within Wiltshire

3.2 Habitats and Flora

UK Habitat Assessment - Baseline

- 3.2.1 An initial walkover of the Site was undertaken by Environment Bank surveyors Hannah Tracey MCIEEM, Ellen McDouall and Tom Rothero MCIEEM, and the habitats present were assessed using the UK Habitat Classification System (UKHab) (UKHab Ltd, 2023), taking into account the habitat category requirements for the Metric.
- 3.2.2 A full UKHab assessment of the Site was subsequently carried out within the recommended field season by Environment Bank surveyors Hannah Tracey and Tom Rothero on the 26th July 2023.
- 3.2.3 During the initial Site walkover and UKHab survey, any invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 and protected and/or notable plant species were recorded.

3.3 Fauna

- 3.3.1 In accordance with best practice (CIEEM, 2021), during the UKHab survey, the Site was also assessed to determine the presence of, and/or the opportunities to support protected and notable species, including statutory protected species, Species of Principal Importance under Section 41 of the Natural Environment and Communities Act 2006 and priority species listed on the Local Biodiversity Action Plan.

Great Crested Newt

- 3.3.2 Any ponds present within the Site was assessed for its suitability to support Great Crested Newt using ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index (HSI) (ARGUK 2010). Great Crested Newt eDNA samples were collected by newt licenced ecologist Hannah Tracey MCIEEM (2015-8172-CLS-CLS) on the 11th May 2023 following Appendix 5: Technical advice note for Field and Laboratory Sampling of Great Crested Newt Environmental DNA.
- 3.3.3 In addition to the surveys above, the Site has been subject to regular routine visits by EBL ecologists since the initial survey in July 2023, during which time no significant

changes have been observed with regards to the habitats where the ponds are proposed and/or presence of, or suitability, protected and notable species.

3.4 Additional Surveys

Hydrology

- 3.4.1 A hydrology assessment was undertaken on 23rd May 2023 by Viridian Logic. The Viridian Logic platform model uses collated biophysical data notably; the Digital Elevation Model (Ordnance Survey), soil texture (British Geological Survey), and Peak monthly precipitation (WorldClim), to output data on slope, surface depressions, and surface flow indicator. The outcomes of the assessment were used to identify the surface water flows across the Site and to help the micro-siting of new ponds.
- 3.4.2 A Site walkover was undertaken by Jane Moon, a hydrologist from Hydro-morph Nature Based Solutions, on the 20th September 2023.

3.5 Limitations

- 3.5.1 The July survey was completed within the optimal time of year for the habitats present and therefore there are no constraints related to seasonality for habitat categorisation. Whilst efforts were made to record all species using flowering or vegetative characteristics, some earlier flowering species may have been under-estimated during the July visit. Given the selection of habitats recorded within the Site, this is not considered to have constrained the habitat classification or habitat condition assessments.
- 3.5.2 There were no limitations to the pond HSI or Great Crested Newt eDNA survey as both were carried out at the appropriate time of year, and the pond was fully accessible.

4. Data Collation Results

4.1 Desktop Study

- 4.1.1 A summary of the desktop results relevant to the Site is set out below. It should be noted that an absence of records does not confirm the absence of protected or notable species from the search area.

Designated Sites

- 4.1.2 Table 2 summarises the results of the desk study for statutory sites (Ramsar and National Site Network sites) within 10 km of the Site, other statutory designated sites of national and regional importance within 5 km, and non-statutory designated sites within 1 km.

Table 2: Summary of designated sites desk study data

Designated sites	
Statutory sites (10km):	
Ramsar	None
National Site Network sites	None
Statutory sites (5km):	
Sites of Special Scientific Interest (SSSI)	Bencroft Hill Meadows SSSI (4.3 km south west) Sutton Lane Meadows SSSI (4.3 km west) Kellaways - West Tytherton, River Avon SSSI (4.5 km south west)
National Nature Reserves (NNR)	None
Local Nature Reserves (LNR)	None
Non-statutory sites (1km):	
Local Wildlife Site (LWS)	Stockham Marsh Verge LWS (0.003 km north) Catcomb Wood LWS (0.09 km north) Wood Farm Meadows LWS (0.34 km north) Stockham Marsh LWS (0.7 km north) Haygrove Wood LWS (0.72 km east) Beacon Hill Brow Wood LWS (0.96 km north) Avon Grove Wood LWS (1 km north)

Protected and Notable Species Records

4.1.3 WSBRC provided recent records (within the last 10 years) of a number of protected and notable species within 1 km of the Site. Those identified on-Site, require consideration during works, or have the potential to benefit from Habitat Bank creation are discussed within Sections 4.2 and 4.3. The full results are provided at Appendix B.

Local Plan and Notable Habitats

4.1.4 Table 3 provides a summary of the Site's nature conservation context.

Table 3: Summary of habitat enhancement opportunities.

Habitat enhancement opportunities	
Local ecological networks	At the time of this document being written, Wiltshire has not progressed in defining areas for Wiltshire's Nature Recovery Network. Wiltshire Core Strategy Consultation – Topic paper 5: Natural Environment (2012) identifies Biodiversity South West's 'South West Nature Map' as being an appropriate tool for identifying opportunities for habitat creation and restoration. The South West Nature Map identifies the entire Site as being within a Strategic Nature Area for woodland and neutral grassland creation and restoration.
Priority habitats	Field 2 is identified on the priority habitat inventory layer as coastal and floodplain grazing marsh.
Wiltshire LBAP habitats	The Wiltshire LBAP lists the following habitats within the LBAP. • Woodland • Wood-pasture, Parkland and Ancient Trees • Ancient and Species Rich Hedgerows • Orchards • Farmland Habitats • Calcareous Grassland • Unimproved Neutral Grassland • Rivers, Streams and Associated Habitats • Standing Open Water

4.2 Habitats and Flora

UK Habitat Assessment - Baseline

4.2.1 The results of the survey are presented on Figure 2 and photographs of the Site are shown in Appendix C. The habitats present within the Site are listed below, with subsequent descriptions of each habitat also provided:

- Lowland mixed deciduous woodland (0.39 ha)
- Bramble scrub (0.18 ha);
- Arable field margins tussocky (1.93 ha);
- Temporary grass and clover leys (36.22ha);
- Cereal crops (29.07 ha);
- Ponds (non-priority habitat) (0.01 ha)
- Species-rich native hedgerow with trees - associated with bank or ditch (0.93 km)
- Species-rich native hedgerow with trees (0.03 km)
- Species-rich native hedgerow - associated with bank or ditch (1.30 km)
- Species-rich native hedgerow (0.73 km)
- Native hedgerow with trees (0.11 km)

- Ecologically valuable line of trees (1.30 km)
- Ecologically valuable line of trees - associated with bank or ditch (0.56 km)
- Ditch (0.30 km) in Moderate condition; and
- Other rivers and streams (1.60 km)

4.2.2 The proposed works are located within fields 2, 5, 6, 7 and 8 which comprise Temporary grass and clover ley fields and the Cereal crop fields.

Temporary Grass and Clover Leys

4.2.3 Fields 2, 4, 5, 7, 8 and 9 are currently temporary grass ley dominated by rye-grasses. All fields are in a crop rotation and were cultivated in the last 2-4 years.

4.2.4 Field 2 was identified on the priority habitat inventory layer as coastal and floodplain grazing marsh. However, during the UKHab field survey, this field was identified to not fit the description for this habitat type. This is namely due to the site being using for arable crop rotation, although recently this area has been seeded with a temporary rye-grass ley, this field was due to be returned to arable next year. In addition to this, due to its topography, this field is never inundated from the adjacent watercourse.

Cereal Crops

4.2.5 Fields 1, 3, 6, 10, 11, and 12 form part of the cropping rotation. Most of the fields were planted with maize during the field survey with Fields 1 and 6 left fallow for the year. No notable arable weeds were recorded during the field survey.

Arable Field Margins Tussocky

4.2.6 Areas of tussocky arable field margins lie along the southern border of Field 2, southern corners of Fields 5 and 12, and southeastern corners of Fields 3 and 4.

4.2.7 The remaining habitats are present within the wider Site boundary and will not be impacted as part of the proposed works.

Lowland Mixed Deciduous Woodland

4.2.8 Two small copses of woodland are present along Cade Burna stream in the east of the Site. Another small copse lies on the Sites southern boundary, in the southeastern corner of field 5. Species comprised Pedunculate Oak *Quercus robur*, Field Maple *Acer campestre*, Crack-willow *Salix fragilis* with an understorey of Hawthorn *Crataegus monogyna* and Hazel *Corylus avellana*. The ground flora largely comprised Bramble *Rubus fruticosus* agg. and Common Nettle *Urtica dioica*. All three have ecological value, they are not well connected to other woodlands either on Site or within the wider landscape.

Bramble Scrub

4.2.9 Small areas of bramble scrub lie along the Cade Burna stream. Another small area of bramble scrub lies in the southwestern corner of Field 2 and is connected to woodland beyond the Site boundary.

Ponds (Non-priority Habitat)

- 4.2.10 There is a small pond present within the woodland in Field 11. The pond is artificially connected to the adjacent watercourse, shaded by trees and surrounding scrub. The pond has ecological value but does lack connectivity to other ponds.

Hedgerows and Lines of Trees

- 4.2.11 The fields are bordered by hedgerows. Many of which are species-rich comprising Ash *Fraxinus excelsior*, Hawthorn, Blackthorn, Field Maple, Crack-willow *Salix fragilis*, Elder *Sambucus nigra* and Field-rose *Rosa arvensis*. Many of the hedgerows have an associated ditch which did not fit the criteria for a standalone ditch. An ecologically valuable line of trees runs along the Cade Burna.

Other Rivers and Streams

- 4.2.12 A small stream called the Cade Burna flows through the centre of the Site. The stream is approximately 1.5 wide and varies between 30 cm to 1 m deep. The stream is bordered by mature trees with areas of dense scrub.

Ditch

- 4.2.13 A small ditch, approximately 1m deep, is present between Fields 1 and 2. The ditch is partially shaded by an existing hedgerow which runs halfway down the water features.

Protected Plant Species

- 4.2.14 Several notable plant species within 1 km of the Site were highlighted by the data search. Of the species recorded, only Stinking Chamomile *Anthemis cotula*, Dwarf Spurge *Euphorbia exigua* and Yellow-juiced Poppy *Papaver dubium* subsp. *lecoqii* have a chance of being present on Site as these species are associated with disturbed habitats typical of arable fields.
- 4.2.15 No protected native plant species (Schedule 8 of the Wildlife and Countryside Act 1981 (WACA), as amended) were recorded within the Site boundary.

Invasive Plant Species

- 4.2.16 The desk study returned no recent records of any invasive plant species within 1 km of the Site. No invasive species were recorded during the Site surveys.

4.3 Fauna

Invertebrates

- 4.3.1 Several invertebrate records were provided by WSBRC within 1 km of the Site. The Site offers limited opportunities for invertebrates currently, being dominated by cultivated arable fields. The pond, small areas of Lowland mixed deciduous woodland, scrub and hedgerows offer some suitable habitat for aquatic and terrestrial invertebrates. However, these areas are generally small in comparison to the remainder of the Site. There are also very few microclimates present on Site. Due to the lack of habitat variation, the invertebrates present within the Site would be limited to a common assemblage.

Amphibians

- 4.3.2 One record of Great Crested Newt was returned within 1 km of the Site in 2010.
- 4.3.3 The pond within the Site provides suitable breeding habitat for amphibians. However, eDNA analysis of samples collected on the 11th May 2023 returned negative results for great crested newt. A review of aerial photography identifies a further three small waterbodies within 500 m of the Site; all situated within arable fields to the west of the Site.
- 4.3.4 Although, the semi-natural broad-leaved woodland and hedgerows on and bordering the Site provide suitable hibernation and foraging habitat. The habitats where the proposed works are located is cultivated arable and temporary grass ley fields which offer limited potential for amphibians.

Reptiles

- 4.3.5 No records of reptiles were returned within 1 km of the Site. The small areas of woodland provide suitable hibernation habitat with foraging opportunities for Grass Snake within the on-Site pond and adjacent stream (Cade Burna). However, the arable fields where the proposed works are located is sub-optimal, lacking the structural variation and key basking opportunities with high levels of disturbance and lack of cover.

Birds

- 4.3.6 Several bird records were returned by the data search within 1 km of the Site including Skylark and Linnet which are recorded from the Site itself. It is likely therefore that both species are present as breeding species on Site. As regards to the remaining records, only Kingfisher *Alcedo atthis* and Barn Owl *Tyto alba* are likely to use the Site regularly for foraging and will require consideration.
- 4.3.7 Overall, the Site offers some nesting and foraging opportunities for a range of bird species but is not considered to be of elevated value for birds in the local area.

Bats

- 4.3.8 Multiple records of bats were highlighted within 1 km of the Site. The trees within the small strips of woodland are mostly young and semi-mature but some may offer suitable roosting features for bats. The Site offers some foraging potential with commuting and foraging opportunities via the hedgerows.

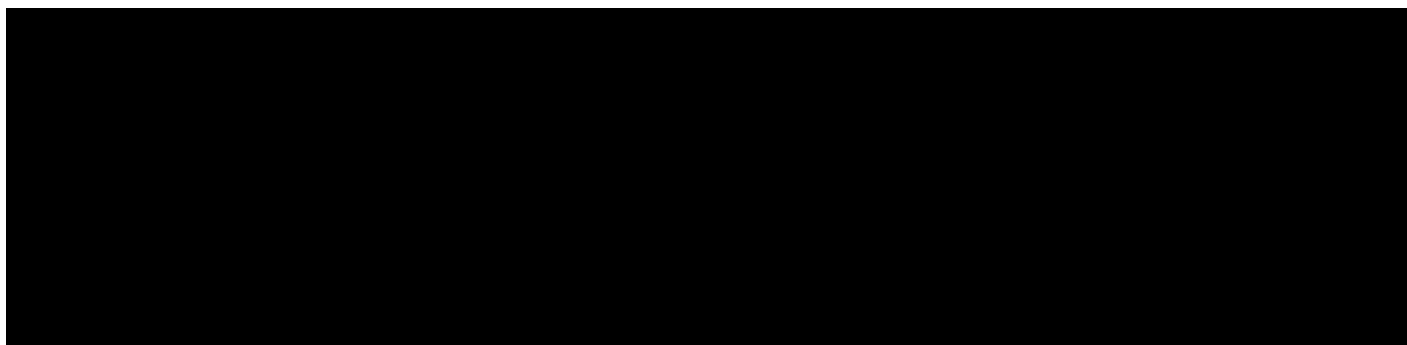
Otter and Water Vole

- 4.3.9 One record for Otter was returned within 1 km of the Site, from 2015. This record is located 924 m south-east of the Site along Cowick Brook. No records of Water Vole *Arvicola amphibius* were returned within 1 km of the Site.
- 4.3.10 No signs of Otter or Water Vole were identified during the field survey.
- 4.3.11 The Cade Burna stream, which flows through the centre of the Site, has the potential to periodically support Otter, particularly for commuting during periods of high flow.

The remaining habitats, particularly the temporary grass leys or cropland, are not suitable for supporting Water Vole or Otter.

Hazel Dormouse

- 4.3.12 No records of Hazel Dormouse *Muscardinus avellanarius* were returned within 1 km of the Site. The hedgerows within and around the Site offer some value to Hazel Dormouse for foraging and commuting. However, lack good connectivity to well established woodland. The southern woodland within the Site is prone to flooding and so would not be suitable for hibernation. All woodlands present on Site were considered too small to support hazel dormouse populations.



Other protected and Notable Species

- 4.3.15 The desk study returned 5 recent records for West European Hedgehog *Erinaceus europaeus* and 10 records for Brown Hare.
- 4.3.16 The temporary grass ley and arable margin strips within the Site offer foraging and resting opportunities for Brown Hare and the margins offer foraging habitat for Hedgehog. However, agricultural practices will be ongoing leading up to the proposed works taking place and therefore the sward is unlikely to offer much suitability for Brown Hare leverets and Hedgehogs, therefore the temporary grass leys are considered sub-optimal.

4.4 Additional Surveys

Hydrology

- 4.4.1 The results from the Viridian Logic hydrology assessment of the Site are illustrated in Figure 3. The results from the hydrology survey are reported in the accompanying report “WILT18-EXT-HFR-v01.00 - Stockham Marsh Hydrological Feasibility Report”. The results from these studies informed the location and design of the proposed waterbodies.

5. Evaluation

5.1 Designated Sites

- 5.1.1 No statutory sites of international importance were present within 10 km of the Site. However, three statutory sites of national importance (Kellaways - West Tytherton, River Avon SSSI, Bencroft Hill Meadows SSSI and Sutton Lane Meadows SSSI) were present within 5 km. The closest being Bencroft Hill Meadows SSSI and Sutton Lane Meadows SSSI, both located 4.3 km to the south west and west of the Site. There are several non-statutory designed sites within 1 km of the Site, including Stockham Marsh Verge (which almost abuts the Site boundary to the north), Wood Farm Meadows (0.34 km north), Catcomb wood (0.09 km north), Stockham Marsh (0.7 km north), Haygrove Wood (0.72 km east), Beacon Hill Brow Wood (0.96 km east) and Avon Grove Wood (1 km north-west) LWS.
- 5.1.2 Whilst the Site lies within the SSSI impact Zone for the Bencroft Hill Meadows SSSI and Sutton Lane Meadows SSSI, these sites are considered to be too far away, and too disconnected from the Site to be in any way impacted by the proposed works.
- 5.1.3 The Cade Burna stream does feed into the Kellaways - West Tytherton, River Avon SSSI approximately 5 km downstream of the Site. Standard pollution prevention measures will be implemented to safeguard the Cade Burna and the downstream SSSI.
- 5.1.4 The proposed works are small scale and will only cause a similar level of disruption as standard agricultural practices. It is therefore considered that the proposed works will have no impact upon nearby non-statutory designated sites.
- 5.1.5 There is an opportunity to support the populations of priority species associated with the local non-statutory designated sites, providing opportunities for territory expansion, through the creation of LBAP and priority habitats as well as increasing connectivity between sites.

5.2 Habitats and Flora

- 5.2.1 Only arable habitats of low and medium distinctiveness will be lost as part of the proposed works and replaced with high distinctiveness habitats.
- 5.2.2 Standing water is a priority habitat listed on the Wiltshire LBAP and as such the creation of more waterbodies with the Site will be targeted as part of the Habitat Bank design. This would help in linking the existing waterbody to other waterbodies within the wider landscape.

5.3 Fauna

Invertebrates

- 5.3.1 At present, the habitats that will be lost as part of the proposed works have minimal value for invertebrates and unlikely to result in significant impacts to the local population or notable individuals.

- 5.3.2 The proposed wetland habitats will improve the source of nectar-rich herbs and varied microclimates in order to support and increase the local invertebrate populations.

Amphibians

- 5.3.3 No evidence of Great Crested Newt was found during the field surveys and are considered unlikely to be present on-Site. However, the surrounding wooded habitats and hedgerows to the Site provide hibernation and foraging opportunities for other amphibians, while the existing pond provides potential breeding habitat.
- 5.3.4 While there will be no overall loss of breeding or terrestrial habitat for amphibians, there could be implications to the species during the creation works. As such, works will be conducted under appropriate Method Statement, for both amphibians and reptiles to ensure potential harm/injury is avoided. Methods for example will include vegetation stimming (or gazing) to 150 mm and then left for a few days in order to allow animals to vacate the fields prior to seeding and planting.
- 5.3.5 The new waterbodies proposed across the Site will provide suitable breeding and foraging habitat for amphibians, including great crested newts.

Reptiles

- 5.3.6 No records of reptiles were obtained within 1 km of the Site. The surrounding habitats to the Site afford good hibernation and foraging opportunities suitable for reptile species. It is possible that reptiles will roam from the good quality habitats along the Site peripheries, onto the arable margin areas.
- 5.3.7 As per amphibians, works will be conducted under Method Statement to ensure potential harm/injury is avoided.
- 5.3.8 Though no records of reptiles were returned in the area, the proposed ponds and ditches will also provide foraging habitat for reptiles, especially grass snake.

Birds

- 5.3.9 Records of Skylark, Linnet, Barn Owl, Kingfisher within 1 km of the Site have been returned. The Site is likely to be within the breeding territories for Skylark and Linnet.
- 5.3.10 The existing hedgerows, scrub and woodland around the Site offer suitable nesting and foraging habitat for a range of bird species. These will be retained as part of the Habitat Bank. However, works close to these features could provide disturbance to nesting birds.
- 5.3.11 The temporary grassland ley and cereal crops is considered sub-optimal for ground-nesting birds due to regular disturbance from frequent cutting and agricultural operations. However, the arable field margins offer opportunities for ground nesting birds.
- 5.3.12 Should the proposed works be undertaken within or near to suitable nesting habitat during the nesting period (1st March – 31st August), works will be conducted under appropriate Method Statement. This will include undertaking nesting bird checks by a suitably experienced ecologist no more than three days prior to the proposed works. If

an active nest is discovered, a suitable buffer will be placed around the nest until the chicks have fledged.

- 5.3.13 The overall design of the Habitat Bank will ensure that the Site is able to continue to support the populations of these species and others as well as provide more breeding and foraging opportunities than are currently present. While the waterbodies will provide additional foraging resource for many species present within the local landscape.

Bats

- 5.3.14 The proposed works do not directly affect any trees or structures suitable for supporting roosting bats, no direct impacts to bat roosts are anticipated.
- 5.3.15 To further minimise potential indirect impacts, proposed works will be restricted to daylight hours, ensuring that foraging and commuting bats are not disturbed during their active period.
- 5.3.16 The loss of the temporary grassland ley and cereal crop is considered to have a negligible impact on foraging/commuting bats, with more optimal habitats present in the wider area
- 5.3.17 The variety of wetlands proposed on Site will provide excellent foraging opportunities for a variety of bat species.

Otter and Water Vole

- 5.3.18 Neither Water Vole nor Otter are considered likely to be utilising the habitats for which the proposed works are located. As such, no impact is anticipated on these species, if present.
- 5.3.19 The Cade Burna stream will continue to provide foraging habitat for otter, whilst the ponds and ditches have the potential to provide additional foraging resource for these species.

Hazel Dormouse

- 5.3.20 Hazel Dormouse are considered absent from the Site at present. As the proposed works do not involve direct impacts to any woodland, scrub or hedgerows, no direct impacts to Hazel Dormouse, if present, are anticipated

Other Protected and Notable Species

- 5.3.23 As the temporary grass lay and arable field margins provide some opportunities for foraging and sheltering for Brown Hare and Hedgehogs. The same measure set out of Badger will be implemented to safeguard any Brown Hare and Hedgehogs, if present.
- 5.3.24 Once created, the proposed habitats will provide increased foraging and sheltering opportunities for the local Brown Hare and Hedgehog population.

6. Conclusions

- 6.1.1 Subject to the implementation of suitable and proportional precautionary mitigation measures set out within an appropriate Method Statement, the proposed works to create 12 new Ponds (priority habitat), two ditches and a culvert at Stockham Marsh Habitat Bank are not anticipated to significantly impact on any habitats, protected and priority species, or on designated sites.
- 6.1.2 Overall, the proposed waterbodies have been thoughtfully designed to provide a diverse array of micro-habitats for local fauna. Features including areas with gently sloping sides, vertical edges, areas of permanent water, seasonal wet mud, and basking opportunities for invertebrates will be provided. As a result, once the ponds have established, they will benefit a wide range of flora and fauna, including invertebrates, birds, amphibians and reptiles.

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Figure 1: Site Boundary



Figure 1
Site Boundary

Legend:

-  Site Boundary
-  Field Number

Stockham Marsh



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Site code WILT18		Figure ref WILT18-PEA-F01	
Date 27/06/25	Version 01	Drawn CH	Approved TS

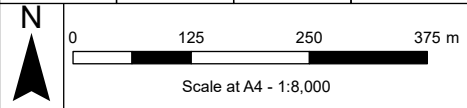


Figure 2: Baseline Habitats

Figure 2
Baseline Habitats

Legend:

-  Site Boundary
-  Cereal Crop
-  Arable Margins Sown with Tussocky Grasses
-  Temporary Grass and Clover Leys
-  Bramble Scrub
-  Lowland Mixed Deciduous Woodland
-  Pond (Non-priority Habitat)
-  Hedgerow
-  Ditch
-  Other Rivers and Streams

Stockham Marsh



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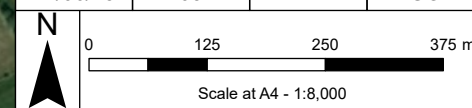


Figure 3: Hydrology Assessment

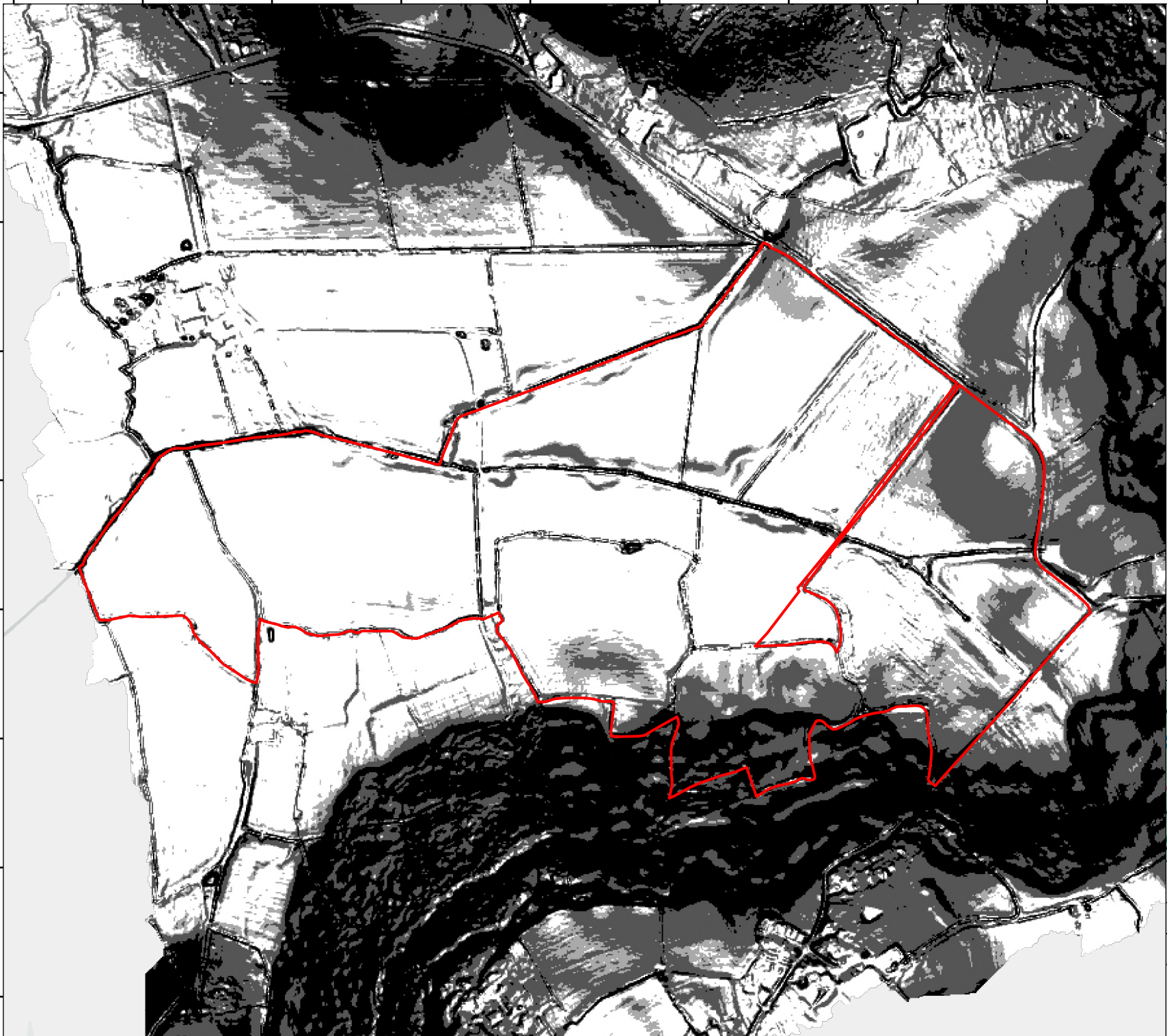


Figure 3a
Hydrology Assessment - Slope

Legend:

 Site Boundary

Slope (Degrees)

-  ≤ 4
-  4 - 5
-  5 - 10
-  > 10

Stockham Marsh



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Site code		Figure ref	
WILT18		WILT18-PEA-F03a	
Date	Version	Drawn	Approved
27/06/25	01	CH	GO

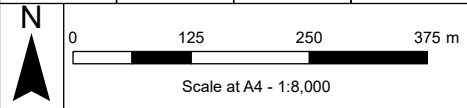


Figure 3b
Hydrology Assessment - Depressions

Legend:

 Site Boundary

Depressions (m)

 0.01

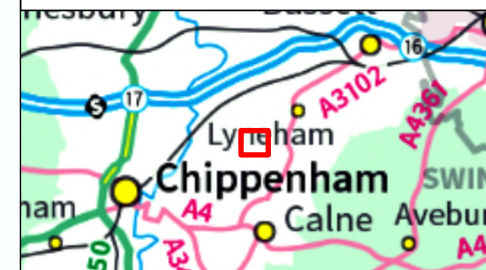
 0.1

 0.5

 1.0

 2.0

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Site code WILT18		Figure ref WILT18-PEA-F03b	
Date 27/06/25	Version 01	Drawn CH	Approved GO

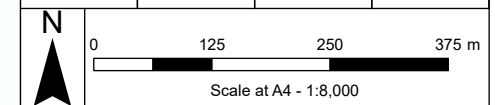


Figure 3c
Hydrology Assessment - Surface Flow

Legend:

 Site Boundary

Surface Flow Indicator

<=50

 50 - 80

 80 - 150

 150 - 300

 300 - 500

 500 - 800

 800 - 1,000

 >1,000

Stockham Marsh



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Site code WILT18		Figure ref WILT18-PEA-F03c	
Date 27/06/25	Version 01	Drawn CH	Approved GO

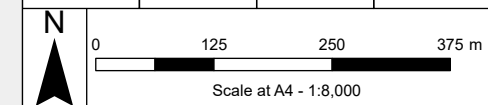


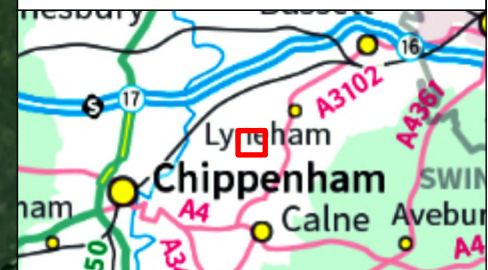
Figure 4: Proposed Habitats

Figure 4
Proposed Habitats

Legend:

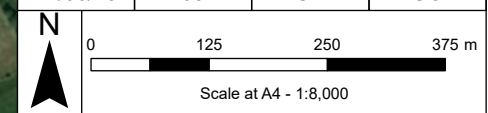
-  Site Boundary
-  Lowland Meadow
-  Other Neutral Grassland
-  Modified Grassland
-  Mixed Scrub
-  Lowland Mixed Deciduous Woodland
-  Other Broadleaved Woodland
-  Pond (Priority Habitat)
-  Pond (Non-priority Habitat)
-  Species-rich Native Hedgerow - Associated with Bank or Ditch
-  Species-rich Native Hedgerow with Trees - Associated with Bank or Ditch
-  Species-rich Native Hedgerow
-  Ecologically Valuable Line of Trees
-  Species-rich Native Hedgerow with Trees
-  Ecologically Valuable Line of Trees - Associated with Bank or Ditch
-  Native Hedgerow with Trees - Associated with Bank or Ditch
-  Culvert
-  Ditch
-  Other Rivers and Streams
-  Rural Tree

Stockham Marsh



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Site code WILT18		Figure ref WILT18-PEA-F04	
Date 27/06/25	Version 03	Drawn CH	Approved GO



Appendix A: Legislation and Policy

Legislation

- The Environment Act 2021 mandates that all planning applications will be required to demonstrate how a development will enhance biodiversity and protect habitats from November 2023. This is to be achieved through a measurable 10 % BNG for at least 30 years, in association with development through the use of the most up to date Biodiversity Metric;
- National Planning Policy Framework ('NPPF', as revised 2021) sets out how planning policies and decisions should contribute to and enhance the natural and local environment through amongst other things, ensuring BNG through development and protect ecological important sites and networks;
- The Conservation of Habitats and Species Regulations 2017 (as amended) details the regulations for the protection of European Protected Habitat and Species. Such European Protected Species (EPS) include all species of bats, Great Crested Newt, Hazel Dormouse, and European Otter amongst others;
- The Wildlife and Countryside Act ('WCA') 1981 (as amended) covers the legislation for endangered species in England and the framework for the designation of Sites of Special Scientific Interest (SSSIs);
- The Countryside and Rights of Way ('CRoW') Act 2000 reinforces the wildlife legislation listed in the WCA and places a duty of government departments to consider biodiversity, and provides governmental department powers for the protection and maintenance of SSSIs;
- The Natural Environment and Rural Communities Act ('NERC') 2006 places a duty upon local authorities to promote and enhance biodiversity in all their functions. Specifically, habitats and species of principal importance to the conservation of biodiversity in regards to the planning process;
- The Hedgerow Regulations 1997 provides protection by prohibiting the destruction or damage to important countryside hedges; and
- The Protection of Badgers Act 1992 includes the protection of badgers under the act and that it is unlawful to wilfully kill, injure, take, possess or cruelly ill-treat Badgers or attempt to do so.

Local Policy

The following local policies have been taken into account as part of this appraisal:

- Local plan: Wiltshire Core Strategy (2015 – 2026) (Wiltshire Council, 2015)
 - Core Policy 50: Biodiversity and Geodiversity - All development should seek opportunities to enhance biodiversity. Major development in particular must include measures to deliver biodiversity gains through opportunities to restore, enhance and create valuable habitats, ecological networks and ecosystem services. Such enhancement measures will contribute to the objectives and targets of the Biodiversity Action Plan (BAP) or River Basin/ Catchment Management Plan,

particularly through landscape scale projects, and be relevant to the local landscape character.

- Wiltshire Core Strategy Consultation – Topic paper 5: Natural Environment (2012)
- Wiltshire Biodiversity Action Plan 2008

Appendix B: Recent Desktop Study Records

Desktop study records within 1 km of the Site and within the last 10 years

Name of species	Legislation / Status	Number of records returned	Closest record to Site (m)
Flowering plants			
Green-winged orchid (<i>Anacamptis morio</i>)	RLGB.Lr(NT)	7	10
Violet helleborine (<i>Epipactis purpurata</i>)	County importance	2	670
Bird's-nest orchid (<i>Neottia nidus-avis</i>)	RLGB.Lr(NT)	1	750
Stinking Chamomile (<i>Anthemis cotula</i>)	RLGB.VU	1	877
Wild Liquorice (<i>Astragalus glycyphyllos</i>)	County importance	5	780
Strawberry Clover (<i>Trifolium fragiferum</i>)	RLGB.VU	1	670
Wood vetch (<i>Vicia sylvatica</i>)	County importance	3	600
Dwarf spurge (<i>Euphorbia exigua</i>)	RLGB.VU	1	760
Distant sedge (<i>Carex distans</i>)	County importance	2	890
Meadow brome (<i>Bromus commutatus</i>)	County importance	5	10
Yellow-juiced poppy (<i>Papaver dubium</i> subsp. <i>lecoqii</i>)	County importance	1	877
Great burnet (<i>Sanguisorba officinalis</i>)	County importance	1	10
Creeping forget-me-not (<i>Myosotis secunda</i>)	County importance	1	600
Invertebrates			
Common Darter (<i>Sympetrum striolatum</i>)	Red List GB (Data deficient)	1	360
Alder Leaf Beetle (<i>Agelastica alni</i>)	Red List GB (Data deficient)	1	360
White Admiral (<i>Limenitis camilla</i>)	Red List GB (Vulnerable), Sect.41, UKBAP	4	600
Small Heath (<i>Coenonympha pamphilus</i>)	RLGB.Lr(NT), Sect.41, UKBAP	5	600

Name of species	Legislation / Status	Number of records returned	Closest record to Site (m)
Amphibians			
Great crested newt (<i>Triturus cristatus</i>)	HabRegs.2, HSD.2, HSD.4, Sect.41, UKBAP, WCA.Sch5	1	380
Birds			
Red Kite (<i>Milvus milvus</i>)	BD1, WCA.Sch1	1	378
Woodcock (<i>Scolopax rusticola</i>)	BoCC.Red	1	600
Kingfisher (<i>Alcedo atthis</i>)	BD1, WCA.Sch1	1	965
Peregrine (<i>Falco peregrinus</i>)	BD1, WCA.Sch1	1	1000
Skylark (<i>Alauda arvensis</i>)	BoCC.Red, Sect.41	3	On-site
Linnet (<i>Linaria cannabina</i>)	BoCC.Red	3	On-Site
House Martin (<i>Delichon urbicum</i>)	BoCC.Red	3	880
Barn Owl (<i>Tyto alba</i>)	WCA.Sch1	2	209
Terrestrial mammals			
Serotine (<i>Eptesicus serotinus</i>)	County importance, HabRegs.2, HSD.4, RLGB.VU, WCA.Sch5	3	1000
Noctule bat (<i>Nyctalus noctula</i>)	County importance, HabRegs.2, HSD.4, Sect.41, UKBAP, WCA.Sch5	5	1000
Pipistrelle (<i>Pipistrellus pipistrellus</i>)	County importance, HabRegs.2, HSD.4, WCA.Sch5	21	1000
Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>)	County importance, HabRegs.2, HSD.4, Sect.41, UKBAP, WCA.Sch5	2	1000
Brown long-eared bat (<i>Plecotus auratus</i>)	County importance, HabRegs.2, HSD.4, Sect.41, UKBAP, WCA.Sch5	2	1000
Eurasian otter (<i>Lutra lutra</i>)	HabRegs.2, HSD.2, HSD.4, Sect.41, UKBAP, WCA.Sch5	1	924
Eurasian badger (<i>Meles meles</i>)	PBA	16	N/A
Polecat (<i>Mustela putorius</i>)	HabRegs.4, HSD.5, Sect.41, UKBAP	1	908

Name of species	Legislation / Status	Number of records returned	Closest record to Site (m)
West European hedgehog (<i>Erinaceus europaeus</i>)	RLGB.VU, Sect.41, UKBAP	5	1000
Brown hare (<i>Lepus europaeus</i>)	Sect.41, UKBAP	10	228
<i>Designation abbreviations – HSD.2/4/5: Habitats and species directive Annex 2/Annex 4/Annex 5; BD1: Birds Directive Annex 1; WCA.Sch1/Sch8/Sch5: Wildlife and Countryside Act Schedule 1/Schedule 5/Schedule 8; Sect.41: Natural Environment & Rural Communities Act 2006 - Species of Principal Importance in England (s41); HabsRegs.2/4: The Conservation (Natural Habitats, &c.) Regulations 1994 - Schedule 2/Schedule 4; BoCC.Red: Birds of Conservation Concern Red List; PBA: Protection of Badgers Act (1992); UKBAP: UK Biodiversity Action Plan priority species; RLGB.DD/Lr(NT)/VU: IUCN Red Data List Great Britain – Data Deficient/Lower risk near threatened/Vulnerable; County importance: species of importance to Wiltshire</i>			

Appendix C: Baseline Photographs

Photograph 1: Lowland mixed deciduous woodland



Photograph 2: Lowland mixed deciduous woodland



Photograph 3: Arable field margin tussocky



Photograph 4: Temporary grass ley



Photograph 5: Temporary grass ley



Photograph 6: Cereal crops



Photograph 7: Cereal crops



Photograph 8: Pond (priority habitat)



Photograph 9: Hedgerow



Photograph 10: Hedgerow



Photograph 11: Cade Burna



Photograph 12: Ditch

