



Montpelier Estates

Skimmingdish Lane, Bicester

Ecology Report

854185

OCTOBER 2012

RSK

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1 INTRODUCTION

1.1 Purpose of this Report

This report presents the results of a Phase 1 Habitat Survey and assessment for protected vertebrates carried out on 28th August 2012 at Skimmingdish Lane, Bicester (OX26 4LA). The surveys were requested to support a planning application for a residential development on the site.

The purpose of this report is to present the results of the surveys and to advise on suitable mitigation and compensation strategies

A site location plan and plans showing the potential development area are shown in *Figures 1, 2, and 3, Section 6*.

1.2 Ecological Context

The site is bordered on to the north and east by an arable field with narrow margins, most recently planted with broad beans. To the west the site is bordered by a strip of amenity grassland (lawn) adjacent to a paved footpath and minor road. The southern-eastern boundary is a narrow strip of woodland with improved grassland on the other side. The site is on the edge of Cornbrash Formation limestone and alluvial deposits.

1.3 Structure of the Report

The remainder of this report is structured as follows:

- Section 2 describes the survey and assessment methods;
- Section 3 presents the survey results;
- Section 4 evaluates the results and provides recommendations.
- Section 5 lists the references;
- Section 6 provides the figures;
- Appendix 1 contains the Thames Valley Environmental Record Centre data search report;
- Appendix 2 contains the botanical and animal target notes;
- Appendix 3 contains the species lists; and
- Appendix 4 provides a summary of relevant protected species legislation.

2 METHODS

2.1 General

A field survey was undertaken by Gareth Blockley and Stephen Heathcote on 28th August 2012 and included an extended Phase 1 Habitat Survey and an assessment of the site's potential to support protected species. Gareth and Stephen are Members of the Institute of Ecology and Environmental Management (IEEM) and are experienced in undertaking these surveys.

2.2 Background Data Search

A data request was made to Thames Valley Environmental Record Centre for up-to-date records of designated sites and notable species within 1km of the site.

Species included in the search parameters are:

- species that are protected by international law;
- species listed in European directives and legislation;
- nationally protected species under The Wildlife & Countryside Act 1981 (as amended), Badgers Act 1992 (as amended) and Deer (Scotland) Act 1996;
- all species listed on the RSPB Birds of Conservation Concern 2002-2007 as Red or Amber;
- plant species that are Nationally Rare or Nationally Scarce; and
- species that have Action Plans under the UK Biodiversity Action Plan (UKBAP) or are Priority Species under the London Biodiversity Action Plan (LBAP).

2.3 Extended Phase 1 Habitat Survey

Habitats were assessed following the methods outlined in the Handbook for Phase 1 habitat survey: a technique for environmental audit (2010) including:

- mapping using standardised colours and codes to indicate broad habitat types on a Phase 1 Habitat Map; and
- a description of habitat features to identify specific ecological or nature conservation features on the Phase 1 Habitat Survey Map (referred to as 'Target Notes'). These are provided in Section 11.

Plant nomenclature in this report follows Stace (2010) for native and naturalised species of vascular plant. Introduced species and garden varieties were identified using the relevant texts. Plant names in the text are given with scientific names first, followed by the English name in brackets. Doubtful identifications are preceded by cf. placed before the specific epithet where the plant is very probably the species indicated, but it is impossible to distinguish it from similar members of the genus with certainty.

2.4 Habitat Assessment for Protected Species

2.4.1 General

The habitat was assessed for protected species during the Phase 1 Habitat Survey. Recognisable areas (habitat, land parcels or locations) that are suitable for protected species were identified. Obvious signs and incidental sightings of protected species would have been noted where present, although this type of survey cannot usually confirm whether species are actually present or absent.

Taking into consideration protected species records (detailed in *Section 3.1.3*), the geographical region and the habitat types at the site, protected animals that could be encountered are:

- Badger (*Meles meles*);
- bats;
- common reptiles;
- Water Vole (*Arvicola amphibius*); and
- nesting birds.

Other species such as Hedgehog could also be encountered.

2.4.2 Badger

An initial assessment was carried out to identify areas that might be used by Badgers (*Meles meles*) for commuting, foraging or sett-building within 30 m of all areas potentially affected by works (where access was possible). The area was systematically searched for signs of Badgers such as setts, foraging signs, paths (runs) and latrines.

2.4.3 Bats

Habitats were assessed for their suitability for roosting, foraging and commuting bats. This included a ground level assessment of the bat roosting potential of any trees on site.

Although foraging requirements differ between species, good bat foraging habitat generally includes sheltered areas and habitats with good numbers of insects, such as woodland, scrub, hedges, watercourses, ponds, lakes and more species-rich or rough grassland. For commuting, well-connected hedgerows, woodland edge, watercourses and other linear features are generally considered to be of high value.

2.4.4 Great Crested Newt

The suitability of aquatic and terrestrial habitat on the site and in the immediate vicinity (up to 500 m from the site, a distance that this species can travel between ponds and terrestrial habitat) was considered, along with the habitat-connectivity between suitable habitat areas. Aerial photography and Ordnance Survey maps were searched for signs of ponds or other suitable breeding habitat within 500 m of the site.

2.4.5 Nesting Birds

Habitat that might be used by nesting birds was identified. The site was searched for evidence of bird's nests, although a single visit is not sufficient to establish whether or not the site is used by nesting birds.

2.4.6 Common Reptiles

The site was assessed for reptiles, with particular attention paid to those features that provide suitable basking areas (e.g. south-facing slopes), hibernation sites (e.g. banks, walls, piles of rotting vegetation) and opportunities for foraging (rough grassland and scrub).

The site was assessed for its suitability for each of the four common reptile species. The specific habitat requirements differ between species. Common Lizards (*Zootoca vivipara*) use a variety of habitats from woodland glades to walls and pastures, although one of their favoured habitats is rough grassland. Slow-worms (*Anguis fragilis*) use similar habitats to Common Lizards, and are often found in rank grassland, gardens and derelict land. Grass Snakes (*Natrix natrix*) have broadly similar requirements to Common Lizards with a greater reliance on ponds and wetlands, where they prey on Common Frogs. Adders (*Vipera berus*) use a range of fairly open habitats with some cover, but are most often found in dry heath (Beebee & Griffiths 2000).

2.4.7 Other Species

The site was also assessed for its potential to support other UK Biodiversity Action Plan priority species particularly Hedgehog (*Erinaceus europaeus*) for which there are records in the area.

2.5 Criteria for Assessment

The nature conservation value of habitats is assessed according to widely accepted criteria that relates to important factors such as naturalness, extent, rarity, and diversity. These and others are described in an extensive literature (Ratcliffe 1977, Usher 1986). In addition, the following criteria were used:

- relevance to International, European and wildlife law;
- relevance to the UK Government's duty to the Convention on Biological Diversity (CBD) through national and local Biodiversity Action Plans;
- semi-natural habitats, such as ancient woodland (Rackham 1986),

Significant species were defined as follows:

- species protected by International, European and wildlife law;
- IUCN Red List species;
- County Red Data Book species (Cheffings and Farrell 2005);
- Priority habitats and species listed within national and local BAPs; and
- other notable species listed as rare or scarce in literature issued by conservation organisations or learned societies (e.g. Stewart et al. 1994).

2.6 Limitations and Assumptions

The Phase 1 Habitat Survey took place in August which is a suitable time of year for this type of survey. However, many ancient woodland indicator species are spring ephemerals and would therefore be difficult to detect in August. The narrow strip of semi-natural broadleaf woodland had a ground flora of *Hedera helix* (Ivy) and *Lamium galeobdolon ssp. argenteum* (Variegated Archangel) which would generally exclude most spring ephemerals. Therefore the risk of not detecting ancient woodland indicator species, due to the survey timing, is low.

3 RESULTS

3.1 Background Data Search

A data request was made to Thames Valley Environmental Record Centre encompassing a search area 1 km around the site. The report is provided in *Appendix 1*. A summary of their results is given below.

3.1.1 Statutory sites

There were no statutory sites recorded within the search area.

3.1.2 Non-statutory sites

One non-statutory site lies just within the search area – Gavray Drive Meadows Local Wildlife Site, however this site is situated approximately 950 m south of the proposed development site.

There are two additional sites in the search area, both are ‘Proposed Local Wildlife Sites’. One, the Jarvis Lane Proposed Local Wildlife Site is approximately 600 m south-west of the proposed development site. The boundary of the other site, Bicester Airfield Proposed Local Wildlife Site, encompasses the whole of the proposed development site; see *Appendix 1* for a map showing the location of these sites.

The total area of this Proposed Local Wildlife Site is 161.5 hectares of which 1.728 hectares will be directly affected by the proposed development. The site is noted for its extensive areas of grassland with lowland calcareous grassland at the edges and for its developing species-rich open-mosaic communities on areas of hard standing.

3.1.3 Protected Species

Records of a total of 35 taxa protected by *The Wildlife and Countryside Act 1981* (as amended) were returned. These comprised:

- Badger (*Meles meles*) – 1 record
- Basil Thyme (*Clinopodium acinos*) – 2 records;
- Black-Headed Gull (*Larus ridibundus*) – 1 record;
- Broom Moth (*Melanchra pisi*) – 1 record;
- Buff Ermine (*Spilosoma luteum*) – 1 record;
- Bullfinch (*Pyrrhula pyrrhula*) – 1 record;
- Cinnabar Moth (*Tyria jacobaeae*) – 3 records;
- Common Pipistrelle (*Pipistrellus pipistrellus*) – 1 record;
- Common Kingfisher (*Alcedo atthis*) – 1 record;
- Dusky Brocade (*Apamea remissa*) – 1 record;
- Dunnock (*Prunella modularis*) – 1 record;
- European Water Vole (*Arvicola amphibius*) – 1 record;

- Ghost Moth (*Hepialus humuli*) – 1 record;
- Green Woodpecker (*Picus viridis*) – 1 record;
- Herring Gull (*Larus argentatus*) – 1 record;
- House Martin (*Delichon urbica*) – 1 record;
- Kestrel (*Falco tinnunculus*) – 1 record;
- Knot Grass (*Acronicta rumicis*) – 1 record;
- Large Nutmeg (*Apamea anceps*) – 1 record;
- Lesser Black-Backed Gull (*Larus fuscus*) – 1 record;
- Meadow Pipit (*Anthus pratensis*) – 1 record;
- Mottled Rustic (*Caradrina morpheus*) – 1 record;
- Oak Hook-tip (*Watsonalla binaria*) – 1 record;
- Red Kite (*Milvus milvus*) – 1 record;
- Song Thrush (*Turdus philomelos*) – 1 record;
- Shoulder-striped Wainscot (*Mythimna comma*) – 1 record;
- Skylark (*Alauda arvensis*) – 1 record;
- Small Heath (*Coenonympha pamphilus*) – 1 record;
- Small Square-spot (*Diarsia rubi*) – 1 record;
- Small Phoenix (*Ecliptopera silaceata*) – 1 record;
- Starling (*Sturnus vulgaris*) – 1 record;
- Stock Pigeon (*Columba oenas*) – 1 record;
- Swift (*Apus apus*) – 1 record;
- West European Hedgehog (*Erinaceus europaeus*) – 2 records; and
- White Ermine (*Spilosoma lubricipeda*) – 1 record.

3.2 Habitats

3.2.1 General

The habitats at the site comprise semi-improved neutral grassland, tall ruderals, woodland and scattered trees and scrub. All of these are common and widespread habitats in and around Oxfordshire.

All Botanical Target Notes and species lists are provided in *Appendix 2*.

3.2.2 Woodland

The south of the site includes part of a narrow strip of semi-natural broadleaf woodland (*Target Note 5*). The woodland covers an historic field boundary and to the north this develops into a dry ditch under the woodland. It is likely the woodland has arisen from an overgrown hedge or tree line, and has been supplemented by self-seeded species such as *Crataegus monogyna* (Hawthorn), *Fraxinus excelsior* (Ash), *Salix cinerea* (Grey Willow), and *Sambucus nigra* (Elder). The extent has been increased by suckering growth of *Salix cinerea* (Grey Willow). Just outside the development boundary the woodland includes mature *Fraxinus excelsior* (Ash) and *Quercus robur* (Pedunculate

Oak). No ancient woodland indicator plants were found; instead *Hedera helix* (Ivy) was dominant with patches of the non-native *Lamium galeobdolon* ssp. *argenteum* (Variegated Archangel).

3.2.3 Scattered trees and scrub

The site has numerous scattered trees. Two areas are of planted tree species well-known for their ability to spread by suckering, and previous control attempts have led to these creating small areas of scrub. *Target Note 4* is an area of *Populus ×canadensis* (Hybrid Black-poplar) with two mature trees and a line of saplings spreading towards a *Crataegus monogyna* (Hawthorn) bush. *Target Note 9* is an area of *Robinia pseudoacacia* (False-acacia), with 5-7 trees of 10 years age, most likely representing re-growth following cutting of a main tree. This area also has a small number of *Crataegus monogyna* (Hawthorn) and *Sambucus nigra* (Elder) shrubs.

Other scattered trees include two *Prunus avium* (Wild Cherry), an *Acer pseudoplatanus* (Sycamore) and a *×Cupressocyparis leylandii* (Leyland Cypress). There are numerous smaller *Crataegus monogyna* (Hawthorn) and *Prunus spinosa* (Blackthorn) bushes scattered throughout the site.

3.2.4 Grassland

The main part of the site is semi-improved neutral grassland. Since the site was abandoned as allotments, the lack of cutting regime means the *Arrhenatherum elatius* (False Oat-grass) has become dominant, giving the site a rough grassland character. The sward height is between 75 cm and 1 m across the site, although the ground topography is uneven. In some areas the grassland is transitional to tall ruderal vegetation (*Target Notes 1, 3, 6, 7 and 8*), and the vegetation boundaries are difficult to define accurately. Throughout the grassland are scattered forbs of different origin. Most species are naturally occurring, common (often considered weedy) annuals and perennials with the most common on this site *Artemisia vulgaris* (Mugwort), *Heracleum sphondylium*, and *Senecio vulgaris* (Groundsel). There are a small number of plants more characteristic of calcareous grassland including *Centaurea scabiosa* (Greater Knapweed), *Galium verum* (Lady's Bedstraw), *Knautia arvensis* (Field Scabious), *Leucanthemum vulgare* (Oxeye Daisy) and *Lotus cf. corniculatus* (Greater Bird's-foot-trefoil), and these could be remnants of calcareous grassland existing before the allotments. However it is not possible to rule out that they may have been sown recently from a native wildflower seed mix. Some species are likely to have been part of the allotments and have persisted following abandonment, including cultivars of *Lathyrus odoratus* (Sweet Pea), *Lupinus cultivar* (a Lupin), *Mentha suaveolens* (Apple-mint), *Rubus idaeus* (Raspberry) and *Symphytum ×uplandicum* (Russian Comfrey).

3.2.5 Tall ruderals and bramble scrub

There are numerous patches of tall ruderals. Most patches (*Target Notes 1, 3, 6 and 8*) are a mosaic of bramble scrub dominated by *Rubus fruticosus* agg. (Bramble) and tall ruderals dominated by *Urtica dioica* (Common Nettle), with *Calystegia sepium* (Hedge Bindweed) climbing throughout and occur along boundaries in areas there were probably neglected when the site was used. *Target Note 7* is an almost pure stand of *Aster x salignus* (Michaelmas Daisy), most likely a remnant of the allotments.

3.3 Protected Species

3.3.1 Bats

The site footprint (*Animal Note 1*) has trees and patches of scrub and is suitable for foraging bats. The hedgerow on the south-eastern boundary (*Animal Note 4*) is suitable for foraging and commuting bats. The hedgerow links the site to higher quality and more extensive foraging in the surrounding agricultural land (hedgerows and small copses) and to a woodland belt around the eastern edge of Bicester. The trees do not have any features that might be used by roosting bats.

3.3.2 Badgers

No signs of Badger were recorded anywhere on the site even though most of the site and particularly the hedgerow on the south-eastern boundary (*Animal Note 4*) are ideal for foraging Badgers, and the hedgerow is ideal for sett building.

3.3.3 Otter and Water Vole

There were no signs of either Otter or Water Vole anywhere on the site, and no suitable habitat.

3.3.4 Great Crested Newt

The site has habitats suitable foraging and hibernation for Great Crested Newt (*Animal Notes 1 and 4*). However, there are no suitable water bodies within 500m, therefore the risk of this species being present on site is negligible.

3.3.5 Common Dormouse

The hedgerow along the south-eastern boundary (*Animal Note 4*) is too species-poor to provide a food-source for Dormice throughout the whole year, and as it is isolated from prime Dormouse habitat (woodland) and only linked to marginally-suitable habitat (hedgerows and small copses) in the wider area, Dormice are unlikely to be present.

3.3.6 Nesting Birds

All habitats including the open grassland, ruderal vegetation, trees, shrubs and scrub are suitable habitat for nesting birds.

3.3.7 Common Reptiles

The grassland and scrub are suitable foraging and basking sites for commoner species of reptile. Two Common Lizards (*Zootoca vivipara*) were seen confirming presence of this species.

3.3.8 BAP Species

The extensive stands of ruderal vegetation, particularly on the area of compacted gravel at the southern boundary could provide suitable habitat for UK BAP species. A Common Toad (*Bufo bufo*) was seen and there is also extensive habitat for Hedgehog.

4 EVALUATION AND CONCLUSIONS

4.1 Designated Sites

The Gavray Drive Meadows Local Wildlife Site and Jarvis Lane Proposed Local Wildlife Site will be unaffected by the proposed development. However the Bicester Airfield Proposed Local Wildlife Site will be directly affected.

Local Wildlife Sites are defined in local and structure plans under the Town and Country Planning system and are a material consideration for planning decisions. Proposed Local Wildlife Sites are also included on designated sites maps as they are areas thought to include important areas of UKBAP habitat or priority or protected species populations.

The proposed development would result in a loss of approximately 1.783 hectares or 1% of the Bicester Airport Proposed Local Wildlife Site. This loss would be permanent and irreversible. However, it should be noted that the habitats that are specifically mentioned in the citation for the site as reasons for designation (lowland calcareous grassland and species-rich open mosaic communities on areas of hard standing) are not present within the proposed development boundary.

4.2 Habitats

4.2.1 Woodland and Trees

Woodland is a UK BAP Priority Habitat, and the Oxfordshire LBAP uses the same categories as the UK BAP. However, the woodland along the south-eastern boundary of the site is dominated by *Salix cinerea* (Grey Willow) and has few mature trees, mostly beyond the site boundary. This woodland is continuous with a strip running to the north-east along the field edge, and together this may represent a linear habitat feature with importance at the local level.

The scattered trees and scrub are of low ecological value, being mostly non-native species and common scrub species.

4.2.2 Grassland and Tall Ruderals

The main part of the site is a patchwork of semi-improved neutral grassland and tall ruderals, reflecting the historic use of the site for allotments. The grassland is of recent origin, resulting from an absence of management following the abandonment of the allotments and is dominated by the coarse grass *Arrhenatherum elatius* (False Oat-grass). The site includes many common widespread species, and some non-native species. While lowland meadows are UK BAP and Oxfordshire LBAP habitat, this site does not meet the criteria for these habitats and is of low ecological and conservation value. Some calcareous species are present, and the underlying geology would indicate the potential for the site to support calcareous grassland, but there are no remnants of this habitat type left on site, probably due to the increases in soil nutrient-levels arising from cultivation. There are however a few calcicolous plants, which are

generally those calcicolous species that can tolerate higher levels of competition, indicating the underlying basic nature of the soils here.

4.3 Protected Species

4.3.1 Bats

The site is suitable for foraging bats and the hedgerow along the south-eastern boundary is suitable for foraging and commuting bats. Though bat foraging habitat is not legally protected, consideration should be given to retention of linear features that include scrub and trees.

4.3.2 Badger

Badgers are not currently using the site and so there is no requirement for mitigation.

There is habitat suitable for use by Badgers and for sett building and Badgers are a mobile species that regularly alter their territories. If development work is not started within six months of the date of this survey it would be appropriate to update the survey results to ensure that the situation has not changed.

4.3.3 Common Dormouse

The habitat on the site is marginally suitable for Common Dormouse. However, no historic records of Common Dormouse were found within the 1km search area, and the combination of lack of connectivity to prime habitat and lack of local records makes it highly unlikely that the Dormouse is using the site, and the species can be effectively ruled-out.

4.3.4 2.1.5 Great Crested Newt

The lack of waterbodies suitable for use by breeding Great Crested Newt and the lack of local/recent records makes it highly unlikely that Great Crested Newts are using the site, and the species can be effectively ruled-out.

4.3.5 Nesting Birds

Habitats on site are suitable for use by nesting birds and further mitigation is required to avoid the damage or destruction of nesting habitat or nests during the breeding bird season.

All habitats suitable for nesting birds should ideally be removed prior to the start of the bird-breeding season (March to August inclusive). If this is not possible, and vegetation has to be removed in the nesting season, then it should be inspected by an ecologist prior to removal and if there are active nests then they must be retained until all dependent young have fledged and left the nest.

4.3.6 Common Reptiles

Common Lizard was confirmed on the site, and other common reptiles species could also be present, particularly Slow worm (*Anguis fragilis*) and Grass Snake (*Natrix natrix*).

A large amount of habitat suitable for reptiles will be affected by the proposed development. To determine an appropriate mitigation strategy (and to comply with wildlife legislation), the populations of the species present would need to be determined. This would involve a standard presence/absence survey, which could be carried out between May to September and would comprise seven checks of artificial refugia (i.e. 0.5 m² squares of roofing felt) during suitable weather conditions. It is likely that the reptiles will need to be moved to another site to allow development, and it would be advisable to survey potential receptor locations at the same time.

4.3.7 BAP species

There will be a permanent loss of habitat which is likely to support a range of UKBAP species including Common Toad and Hedgehog. However, there is extensive alternative habitat available to the north and east of the proposed development site for these species and new gardens or green space would provide suitable replacement habitat also.

5 REFERENCES

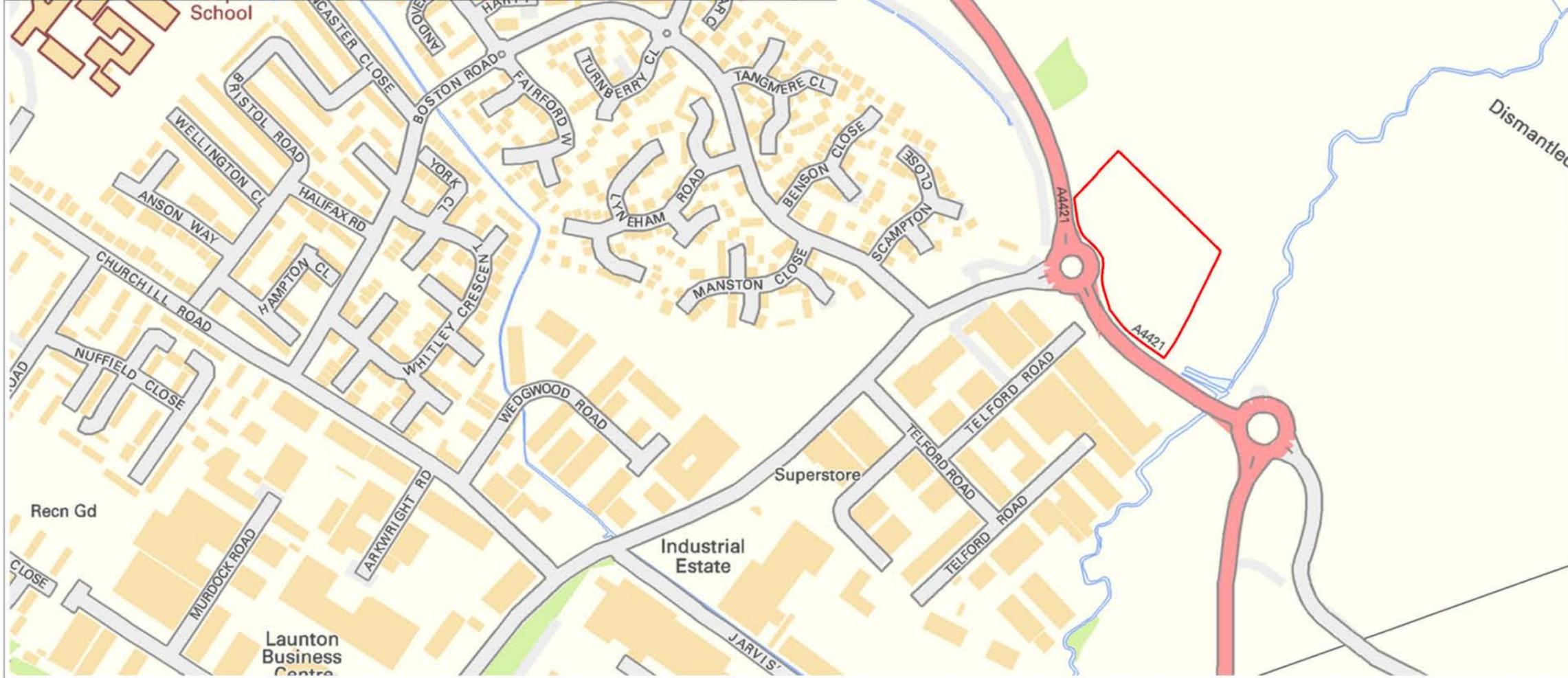
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6 FIGURES

Figure 1. Site Location Plan

Figure 2. Botanical Phase 1

Figure 3. Animal Phase 1



Site Boundary

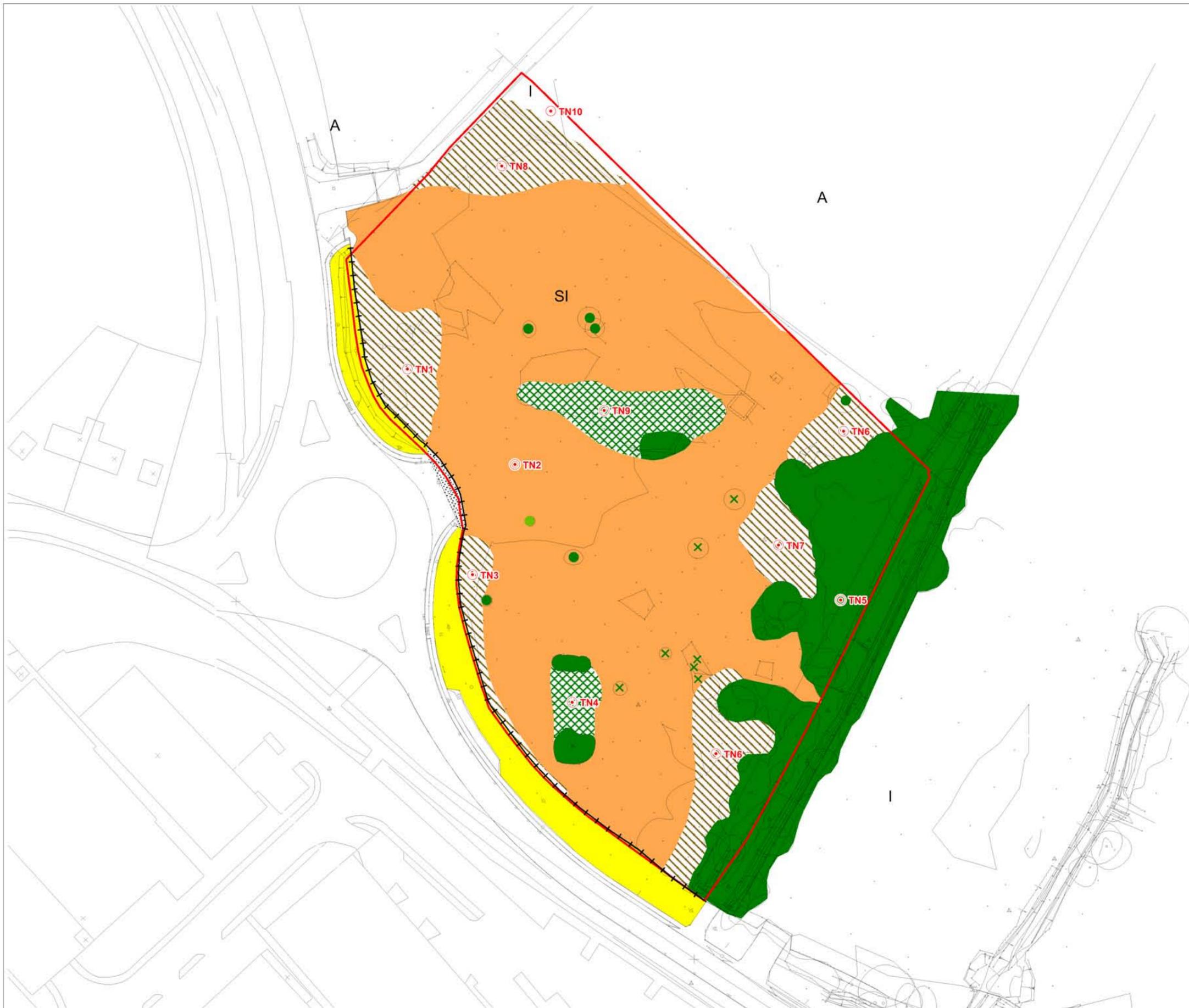
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Skimmingdish Lane

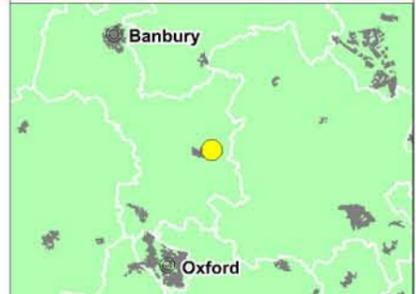
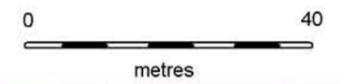
Figure 1
Site Location Plan

SCALE: 1:5,000 @ A3

REV 00



- Site Boundary
- Broad-leaved woodland
- Continuous scrub
- Broad-leaved tree
- Coniferous tree
- Scattered scrub
- SI Semi-improved neutral grassland
- I Improved grassland
- Tall ruderal
- A Arable
- Amenity grassland
- Bare ground
- Target note



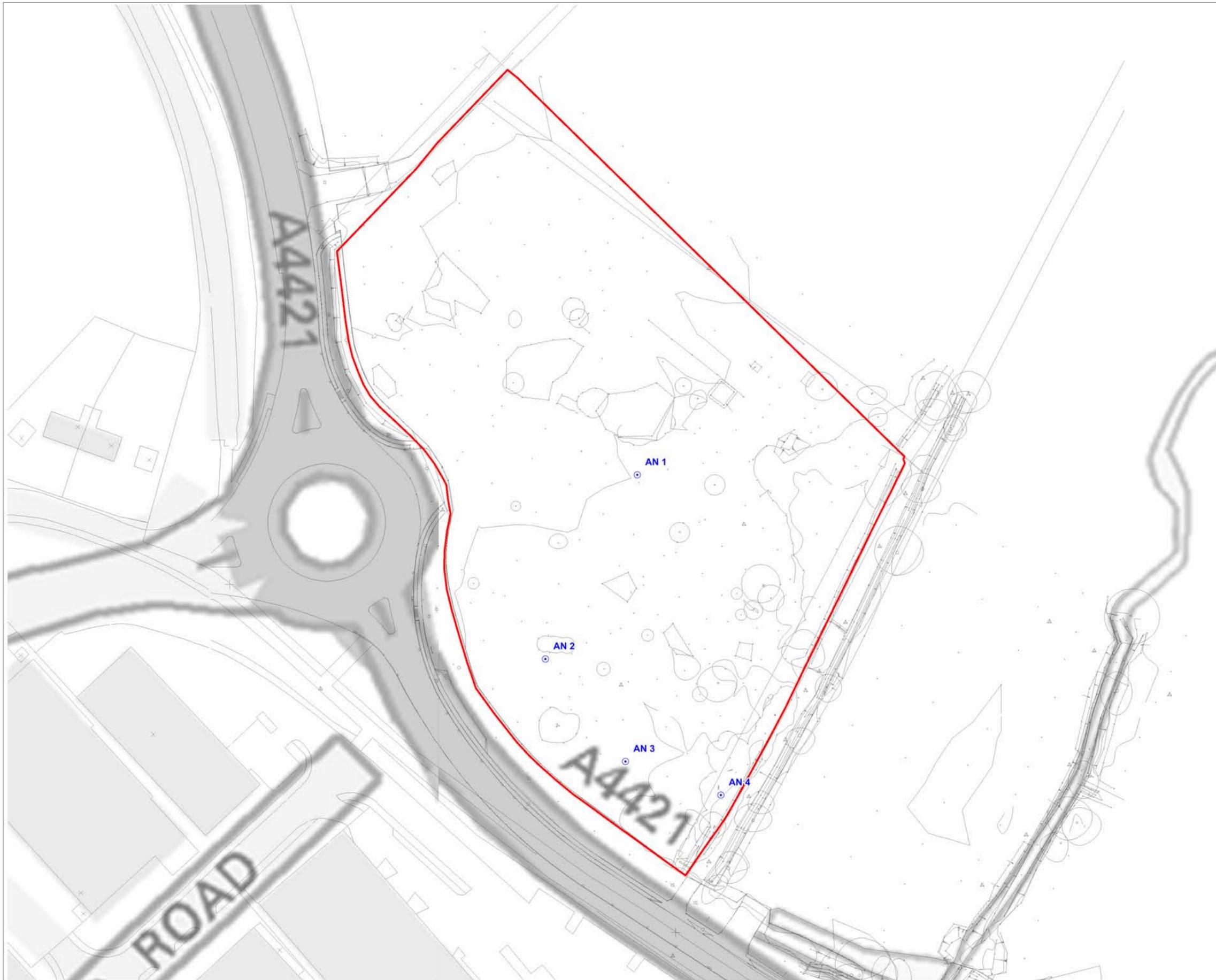
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Skimmingdish Lane

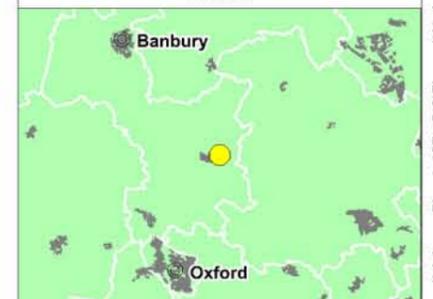
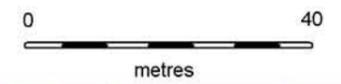


Figure 2
Phase 1 Habitat Survey

SCALE: 1:1,000 @ A3 REV 00



- Site Boundary
- ⊙ Animal Target Note



Rev	Date	Description	Drn	Chk	App
00	29.08.12	Animal P1	SP	RG	GB

Skimmingdish Lane



Figure 3
Animal Phase 1

APPENDIX 1 – DATA SEARCH REPORT

Victoria Gilbey

From: Ruth Gregory
Sent: 02 October 2012 10:54
To: Victoria Gilbey
Subject: FW: Data Search Skimmingdish Lane
Follow Up Flag: Follow up
Flag Status: Red
Attachments: O98.12 Skimmingdish Lane Bicester Search Results.zip

From: Hawker, Graham - E&E Infrastructure Planning [mailto:Graham.Hawker@Oxfordshire.gov.uk]
Sent: 02 October 2012 10:47
To: Ruth Gregory
Subject: Data Search Skimmingdish Lane

Dear Ruth

Please find attached the results of this search. These are:

- A list of protected and notable species records along with a status key.
- A map of designated sites.
- Descriptions/ citations for the designated sites. Jarvis Lane is an old wooded track. Bicester Airfield was surveyed this year and the species records have been included in the list of protected and notables. However the southern area where your site is located was not surveyed due to problems with access. The western boundary which crosses Skimmingdish Lane might be an error.
- A designated site guidance sheet.

An invoice for this search will be sent separately.

Graham Hawker
Biodiversity Data Services Officer
graham.hawker@oxfordshire.gov.uk
Thames Valley Environmental Record Centre
c/o Oxfordshire County Council
Signal Court
Old Station Way
Eynsham
Oxon OX29 4TL

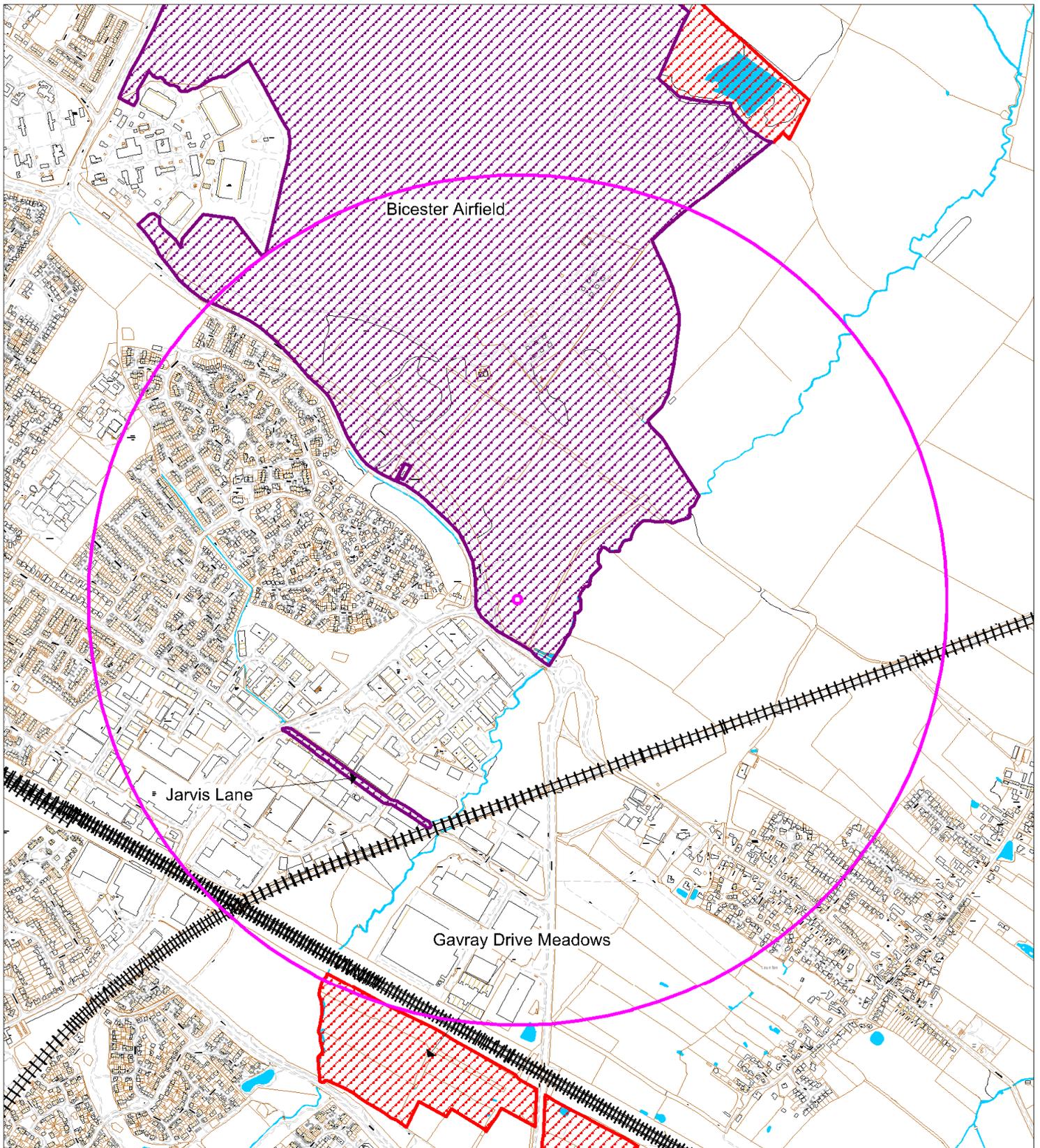
Direct Tel: 01865 815431
TVERC Tel: 01865 815451
Fax: 01865 713939

www.tverc.org

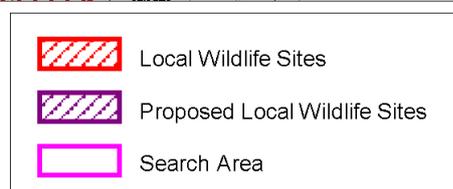
TVERC is a 'not for profit' operation run by a partnership of organisations that collect or need to use information about the natural environment. It is one in a national network of Local Environmental Records Centres.

The Records Centre collects, collates and makes available information to help people make sound decisions about our natural environment in Oxfordshire and Berkshire. The information is also widely used for education and research purposes.

Skimmingdish Lane, Bicester. Designated Sites



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Scale 1:12500

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Oxfordshire Wildlife Site Citation

SITE NAME: Gavray Drive Meadows

SITE CODE: 52W01

AREA: 15.6 ha

GRID REF: SP595226

DISTRICT: Cherwell

EN NATURAL AREA: Thames and Avon Vales

SITE DESCRIPTION:

These meadows form a mosaic of small damp fields with ponds, divided by thick hedges with old trees. Most of the fields are probably former hay meadows over medieval ridge and furrow field patterns, and have a sward mostly dominated by tufted hair-grass with some meadow foxtail and meadow barley. However, fields 5 and 6 appear to be old pasture, with ragged robin, dropwort, devil's-bit scabious and common spotted orchid. Fields 7, 11 and 12 contain devil's-bit scabious and betony. Great burnet is frequent in fields 7 and 11, and scattered in fields 12, 14 and 16. Sneezewort and pepper saxifrage were only found in field 11. Common marsh bedstraw, bugle, greater bird's-foot trefoil, common knapweed and short-fruited willowherb are occasional throughout the fields. There is a very good range of rushes and sedges across the site, with nine species of sedge: glaucous, common, carnation, brown, hairy, false fox, spiked, slender tufted and oval. Grasses include yellow oat-grass, sweet vernal grass, tall fescue, meadow fescue and red fescue. In the drier areas, slightly acid conditions are indicated by frequent tormentil, lesser stitchwort and sweet vernal grass, especially in fields 5, 6, 14 and 15.

Most of the ponds in the western half of the site are shaded and/or only damp in summer. They have a species-poor vegetation of compact rush, plicate sweet-grass and tufted water-forget-me-not. CPM surveyed the ponds on the west side of the north-south road and reported great crested newt (a priority Biodiversity Action Plan species) in 3 ponds and a channel. Smooth newts were found in all ponds and the channel, and one palmate newt was recorded in field 9. The large water-filled pond in field 14 (on the eastern side of the road) contains greater reedmace, gypsywort, marsh foxtail, tufted water-forget-me-not, sharp-flowered rush and soft rush. The brook running along the western margin of the County Wildlife Site contains reed canary-grass, redshank, water chickweed and greater water plantain.

The hedges across the entire site are mostly tall and thick, and contain hawthorn with bramble, blackthorn and elder, as well as occasional crack willow, field maple, oak, ash, crab apple, English elm, dogwood, holly, wayfaring tree, guelder rose, buckthorn, hop and honeysuckle. They are probably post-medieval, as they dissect the ridge and furrow pattern that runs through most of the fields. The hedge that separates fields 5 and 6 from fields 7 and 12 is a double hedge, with black bryony, mature oak, ash and crack willow, including one large collapsed crack willow pollard. The hedge that runs along the eastern edge of fields 11 and 12 is also double. These double hedge lines include Midland hawthorn, wood meadow-grass, great hairy brome and three-nerved sandwort; all four are ancient woodland indicator species (characteristic of woodlands more than 400 years old). The gappy hedge line between fields 11 and 12 contains five large mature oaks. The hedges around fields 8 and 9 contain abundant English elm suckers, as well as hawthorn and bramble. The bullace plum (*Prunus domestica* ssp. *insititia*), a rare and declining species in the county, is found in the hedge between fields 8 and 9.

Numerous birds are using the proposed County Wildlife Site, including reed bunting (which was seen flying across the road between fields 14 and 4), willow warbler, garden warbler, blackcap, whitethroat, lesser whitethroat, chiffchaff, bullfinch, linnet, song thrush, yellowhammer, sedge warbler, hobby and kestrel. Common pipistrelle, noctule, *Myotis* sp. and, possibly, serotine bats were recorded foraging over the site (CPM). Butterflies include large skipper, ringlet, common blue, small heath and marbled white. Twenty-six species of ground beetles were found in fields 5, 6, 11 and 12, including the nationally scarce *Bembidion gilvipes*.

UK PRIORITY BAP HABITATS: lowland meadows

UK PRIORITY BAP SPECIES: Reed bunting (3 or 4 singing males), song thrush (2 or 3 singing males), bullfinch, linnet; great crested newt.

RED DATA BOOK SPECIES:

NATIONALLY SCARCE SPECIES: *Bembidion gilvipes* a ground beetle

BIRDS OF CONSERVATION CONCERN:

Red list: Bullfinch, reed bunting, song thrush, yellowhammer, linnet.

Amber list: Dunnock, willow warbler.

TYPICAL SPECIES of LOWLAND MEADOW: Great burnet, greater bird's-foot trefoil, betony, cuckooflower, devil's-bit scabious, sneezewort, pepper saxifrage, brown sedge, carnation sedge, common sedge and meadow barley.

Oxfordshire Proposed Local Wildlife Site Description

Site Name: Bicester Airfield

Site Code: 52X10

Grid Reference: SP599240

Area (ha): 161.5

Local Authority: Cherwell

Site Description

Bicester airfield has extensive areas of grassland with extensive areas of lowland calcareous grassland at the edges along with developing species rich open mosaic communities on areas of hardstanding. The central areas appear to be short mown grassland. There are also areas with scrub habitat.

Legally Protected & Notable/Rare Species Records

Skimmingdish Lane 1km Search Area

Common Name	Scientific Name	Abundance/ Stage/Record Type	Date	Grid Ref	Master Site	Subsite/Locality	UK Legislation	European Legislation	UK Red List	UK BAP Status 2007	NERC Act 2006	2009 BOCC Status
Small Heath	Coenonympha pamphilus	2 to 9	1997	SP603228	Launton Churchyard					Priority Sp.	Section 41 Sp.	
Ghost Moth	Hepialus humuli		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Oak Hook-tip	Watsonalla binaria		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Small Phoenix	Ecliptopera silaceata		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
White Ermine	Spilosoma lubricipeda		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Buff Ermine	Spilosoma luteum		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Cinnabar	Tyria jacobaeae		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Cinnabar	Tyria jacobaeae	4	19/07/2012	SP59822379	Bicester Airfield	Vegetation on broken up hardstanding				Priority Sp.	Section 41 Sp.	
Cinnabar	Tyria jacobaeae		03/08/2012	SP60162405	Bicester Airfield	Bomb stores - grassland and scattered scrub				Priority Sp.	Section 41 Sp.	
Small Square-spot	Diarsia rubi		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Broom Moth	Melanchra pisi		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Shoulder-striped Wainscot	Mythimna comma		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Knot Grass	Acronicta rumicis		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Dusky Brocade	Apamea remissa		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Large Nutmeg	Apamea anceps		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Mottled Rustic	Caradrina morpheus		06/06/2004	SP600240	Bicester Airfield	explosives dump area				Priority Sp.	Section 41 Sp.	
Common Kingfisher	Alcedo atthis		14/08/2003	SP60202345	Bicester Airfield	area 17 Stream	Sch. 1 (W&C Act 1981)	Birds Dir (An 1)				Amber List
Starling	Sturnus vulgaris	1	19/07/2012	SP601235	Bicester Airfield					Priority Sp. (Research only)	Section 41 Sp.	Red List
Kestrel	Falco tinnunculus	1	19/07/2012	SP601235	Bicester Airfield							Amber List
House Martin	Delichon urbica	1	19/07/2012	SP601235	Bicester Airfield							Amber List
Lesser Black-Backed Gull	Larus fuscus	30	19/07/2012	SP601235	Bicester Airfield							Amber List
Swift	Apus apus	1	19/07/2012	SP601235	Bicester Airfield							Amber List
Dunnock	Prunella modularis	1	19/07/2012	SP601235	Bicester Airfield					Priority Sp. (Research only)	Section 41 Sp.	Amber List
Black-Headed Gull	Larus ridibundus	3	19/07/2012	SP601235	Bicester Airfield							Amber List
Bullfinch	Pyrrhula pyrrhula	2	19/07/2012	SP601235	Bicester Airfield					Priority Sp.	Section 41 Sp.	Amber List
Song Thrush	Turdus philomelos	1	19/07/2012	SP601235	Bicester Airfield					Priority Sp.	Section 41 Sp.	Red List
Red Kite	Milvus milvus	2	19/07/2012	SP601235	Bicester Airfield		Schedule 1 (W&C Act 1981)	Birds Dir (An 1)				Amber List
Skylark	Alauda arvensis	6	19/07/2012	SP601235	Bicester Airfield					Priority Sp.	Section 41 Sp.	Red List
Green Woodpecker	Picus viridis	1	19/07/2012	SP601235	Bicester Airfield							Amber List
Meadow Pipit	Anthus pratensis	1	19/07/2012	SP601235	Bicester Airfield							Amber List
Stock Pigeon	Columba oenas	2	19/07/2012	SP601235	Bicester Airfield							Amber List
Herring Gull	Larus argentatus	30	19/07/2012	SP601235	Bicester Airfield							Red List
Basil Thyme	Clinopodium acinos	R	19/07/2012	SP59822379	Bicester Airfield	Vegetation on broken up hardstanding			post2001:VU	Priority Sp.	Section 41 Sp.	
Basil Thyme	Clinopodium acinos	O	03/08/2012	SP60162405	Bicester Airfield	Bomb stores - hardstanding			post2001:VU	Priority Sp.	Section 41 Sp.	
European Water Vole	Arvicola amphibius		Feb-00	SP595226		Ray Catchment	Schedule 5 - all parts (W&C Act 1981, amended)			Priority Sp.	Section 41 Sp.	
West European Hedgehog	Erinaceus europaeus	2	07/11/2006	SP596235	Bicester					Priority Sp.	Section 41 Sp.	
West European Hedgehog	Erinaceus europaeus	1	07/11/2006	SP591232	Churchill Road, Bicester					Priority Sp.	Section 41 Sp.	
Common Pipistrelle	Pipistrellus pipistrellus		13/01/1993	SP604228		Launton	Sch. 5 - all Parts (W&C Act 1981)	H & S Dir (An 4,5)				
Eurasian Badger	Meles meles	1	13/08/2005	SP594241		Skimmingdish Lane, Bicester	Badger Act 1992					

Statement about Grid References

The following types of grid references are provided:

Six figure grid references. Many of these will have an assigned relatively central grid reference for a site though with small sites the assigned grid reference for a site could be close to the edge. The record may have come from anywhere within the site. Where additional location information is provided the reference may be more accurate or central to a subsite within the larger site. Where the location is not site based the grid reference should be within 100 metres of the location.

Four figure grid references. Generally these are 1km records often with some location information to give an idea of which part of the 1km square the record was found. Sometime this information can be quite accurate. Where a large site is referred to the location should be in that part of the 1km square that is within the site. In some cases these may be tetrad records with grid reference referring to a 2km x 2km square. This includes some confidential records from Oxford Ornithological Society. Other tetrad data is rarely included.

Eight and ten figure grid references: These are generally accurately worked out to the location where the species was found. However for small and thin sites eight figure grid references may be used as a central grid reference for a site

TVERC intends to start tagging data to qualify these grid references but at present only a limited amount of qualification is provided.

GUIDANCE ON THE VARIOUS STATUTORY AND NON-STATUTORY WILDLIFE SITE DESIGNATIONS.

SITE DESIGNATIONS THAT PROTECT THE UK'S NATURAL HERITAGE THROUGH STATUTE

LOCAL NATURE RESERVES (LNRS) (IN ENGLAND, SCOTLAND AND WALES)

Under the National Parks and Access to the Countryside Act 1949 LNRS may be declared by local authorities after consultation with the relevant statutory nature conservation agency. LNRS are declared and managed for nature conservation, and provide opportunities for research and education, or simply enjoying and having contact with nature.

NATIONAL NATURE RESERVES (NNRS)

NNRs contain examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats or to provide special opportunities for scientific study of the habitats communities and species represented within them.

NNRs are declared by the statutory country conservation agencies under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981. In Northern Ireland, Nature Reserves are designated under the Amenity Lands Act (Northern Ireland) 1965.

RAMSAR SITES

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. Originally intended to protect sites of importance especially as waterfowl habitat, the Convention has broadened its scope over the years to cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. The Convention adopts a broad definition of wetland, namely "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres". Wetlands "may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands".

There are no Ramsar sites in Berkshire or Oxfordshire.

SITES OF SPECIAL SCIENTIFIC INTEREST (SSSI) (ENGLAND, SCOTLAND AND WALES)

The SSSI series has developed since 1949 as the national suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. These sites are also used to underpin other national and international nature conservation designations. Most SSSIs are privately-owned or managed; others are owned or managed by public bodies or non-government organisations.

Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs have been renotified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

SPECIAL AREAS OF CONSERVATION (SAC) AND SITES OF COMMUNITY IMPORTANCE (SCI)

SACs are designated under the EC Habitats Directive. SACs are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are designated under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). New and/or amended Habitats sites which have been submitted to the European Commission by Government, but not yet formally adopted by the Commission, are referred to as candidate Special Areas of Conservation (cSACs). Sites which have been adopted by the EC, but not yet formally designated by governments of Member States are known as Sites of Community Importance (SCIs). In the UK, designation of SACs is devolved to the relevant administration within each country.

SACs, together with SPAs, form the Natura 2000 network. SPAs, together with SACs, form the Natura 2000 network.

SPECIAL PROTECTION AREAS (SPA)

SPAs are classified by the UK Government under the EC Birds Directive. SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union. SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles are classified under the Wildlife and Countryside Act 1981.

SPAs, together with SACs, form the Natura 2000 network.

NON-STATUTORY NATURAL HERITAGE CONSERVATION DESIGNATIONS

LOCAL WILDLIFE SITES

Local authorities for any given area may designate certain areas as being of local conservation interest. The criteria for inclusion, and the level of protection provided, if any, may vary between areas. Most individual counties have a similar scheme, although they do vary.

Most Local Wildlife Sites systems involve a panel of ecologists and others in the development of local criteria and the selection of the sites. Panels usually include a local government ecologist, an English Nature representative, the Local Wildlife Trust, the Local Environmental Record Centre and sometimes include a representative of local landowners and local naturalists.

These sites, which may be given various titles such as 'County Wildlife Sites' (CWS), 'Local Wildlife Sites' (LWS), 'Local Nature Conservation Sites' (LNCS), 'Sites of Importance for Nature Conservation' (SINCs), or Sites of Nature Conservation Importance' (SNCIs), together with statutory designations, are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined.

As part of a national standardisation process these sites have recently been renamed as Local Wildlife Sites in Oxfordshire and Berkshire. Previously they were known as County Wildlife Sites in Oxfordshire and Wildlife Heritage Sites in Berkshire. Although the use of these names, especially in citations and descriptions, is being edited and replaced with Local Wildlife Sites or LWS it is likely that some references will remain to these former names until this is complete.

PROPOSED LOCAL WILDLIFE SITES AND EXTENSIONS

These are also included on designated sites maps. They are areas thought to include important areas of UKBAP habitat or priority or protected species populations. Extensions are likely to have similar habitats to the adjacent Local Wildlife Sites. Local Authorities are made aware of these sites. They will not have been fully surveyed and taken to the selection panel as yet.

NGO PROPERTIES / NATURE RESERVES

A variety of non-governmental organisations such as the John Muir Trust, Plantlife, the Royal Society for the Protection of Birds, Wildlife Trusts and Woodland Trust own or manage nature reserves or other areas of land that are important for biodiversity. These sites may be intended primarily for nature conservation, or for other purposes such as protection of landscape features or the provision public access to the countryside. These areas of themselves have no statutory basis, but a large number are also designated SSSIs / NNRs / SPAs / SACs / Ramsar sites, etc.

In Berkshire and Oxfordshire, BBOWT (Berks, Bucks & Oxon Wildlife Trust), Woodland Trust and RSPB sites fall into this category.

LOCAL GEOLOGICAL SITES (LGS)

Local Geological Sites formerly known as Regionally Important Geological and Geomorphological Sites (RIGS) are the most important places for geology and geomorphology outside statutorily protected land such as Sites of Special Scientific Interest (SSSI). As part of a national standardisation process these sites have recently been renamed as Local Geological Sites in Oxfordshire and Berkshire. Sites are selected under locally-developed criteria, according to their value for education, scientific study, historical significance or aesthetic qualities. Whilst not benefiting from statutory protection, LGS are equivalent to Local Wildlife Sites, and "*...consideration of their importance becomes integral to the planning process*".

OTHER SITES

Occasionally other sites might be shown on maps. These are likely to be sites with some wildlife interest, usually managed by local groups, local authorities or town councils but which do not have a specific statutory or non-statutory designation.

CONSERVATION TARGET AREAS/ BIODIVERSITY OPPORTUNITY AREAS

These landscape scale areas have been identified as supporting high concentrations of UKBAP habitats and species populations and the potential to restore habitats at a landscape scale. These areas act as a focus for targeting resources into habitat management and restoration.

Status Key. Produced January 2012 by Thames Valley Environmental Records Centre

LEGISLATION: W & C ACT 1981 - WILDLIFE AND COUNTRYSIDE ACT 1981

- Schedule 5 (tagged as sch. 5) Animals
- Schedule 8 (tagged as sch . 8) Plants
- Schedule 1 Breeding Birds (tagged as sch.1) (Please note that some schedule 1 bird records will refer to species that do not breed in the county, e.g. over-wintering birds such as Redwing or Fieldfare. Although we include them in the annotated records, only they and their nests, eggs and dependent young enjoy extra protection under the W&C 1981 act. If you are in any doubt about the breeding status of a bird please contact us at TVERC)
- Other tagging sec. = section

EUROPEAN LEGISLATION

- Species listed in Annex 2 (tagged as H & S Dir (An 2)) and Annexes 4/5 (tagged as H & S Dir (An 4,5)) of the EC Habitats Directive. This is the Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora. This has been transposed into UK law as the Conservation (Natural Habitats & c.) Regulations 1994 where species are listed in Schedule 2 and Schedule 4.
- Annex 1: Species listed on Annex 1 of EC Directive 79/409/EEC on the Conservation of Wild Birds.

RED LISTS

Species included here are from information compiled by JNCC (The Joint Nature Conservation Committee).

GLOBAL RED LIST

Species listed by the International Union for Conservation of Nature (IUCN) in the IUCN Red List of Threatened Species.

UK RED LIST

Species included in national red lists. This includes red listings based on pre-1994, 1994 and 2001 IUCN guidelines.

Global and UK Red Lists Species are tagged with the guidelines date (pre94, post94, post2001) and the red list category. These are:

- **EX** – Extinct A taxon is Extinct when there is no reasonable doubt that the last individual has died.
- **EW** – Extinct in the Wild. Species known to survive only in cultivation, in captivity or as a naturalised population(s) well outside the past range.
- **CR** – Critically Endangered (CR) Species facing an extremely high risk of extinction in the wild in the immediate future.
- **EN** – Endangered: Species that are not Critically Endangered but is facing a very high risk of extinction in the wild in the near future.

- **VU** – Vulnerable: A species is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future
- **NT** – Near Threatened – A taxon considered to likely to become endangered in the near future.
- **DD** – Data deficient – A taxon with insufficient data to make an assessment of its risk of extinction.
- **RE** – Regionally Extinct – Taxa that are considered extinct within the region but populations exist elsewhere in the world.
- **Inde** – indeterminate – based on a pre 1994 category: Taxa which are known to be Endangered, Vulnerable or Rare but with insufficient data to place them in one of the categories.
- **Insu** – Insufficiently known - based on a pre 1994 category which equates to data deficient.
- **NR** – Rare – a pre 1994 category: Taxa with small populations that are not at present Endangered or Vulnerable, but are at risk. (In GB, this was interpreted as species which exist in fifteen or fewer 10km squares).

UKBPAP SPECIES

These are species listed in the United Kingdom Biodiversity Action Plan (UKBAP) as priority species. Where the species is included as it requires research then “research only” is included in the status.

LOCAL BAP SPECIES

For any Local Authority that has drawn up a list of BAP species. Designations will only apply to species recorded from the Local Authority area.

NERC ACT SPECIES

Species listed in Section 41 of the Natural Environment and Rural Communities Act 2006 as a species of principle importance. These are very similar to the list of UKBAP Species although these are minor differences.

BOCC LISTS - BIRDS OF CONSERVATION CONCERN LISTS

These lists were drawn up by leading governmental and non-governmental conservation organisations including the RSPB and British Trust for Ornithology. The most recent version was published in May 2009.

Red List - species are those that are globally threatened, whose population or range has declined rapidly in recent years (i.e. by more than 50% in 25 years), or which have declined historically and not recovered.

Amber List - Amber list species are those whose population or range has declined moderately in recent years (by more than 25% but less than 50% in 25 years), those whose population has declined historically but recovered recently, rare breeders (fewer than 300 pairs), those with internationally important populations in the UK, those with localised populations, and those with an unfavourable conservation status in Europe.

NOTABLE INVERTEBRATES (SOMETIMES LISTED AS NOTABLE INVERTS.)

Nationally Notable (Scarce) A: Taxa which don't fall within IUCN Red List categories but are uncommon in Britain and occur in <30 10 km (hectad) squares or for less well recorded groups within <7 vice counties.

Nationally Notable (Scarce) B: Taxa which don't fall within IUCN categories but are uncommon in Britain and occur in 31-100 10 km sq/ or for less or for less well recorded groups between 8 and 20 vice counties

Notable: Taxa known to be scarce (occurring in between 16 and 100 10km squares) but for which there is insufficient information to assign them to Na or Nb categories.

This designation comes from the National Biodiversity Network (NBN) species dictionary.

NATIONALLY RARE/ SCARCE PLANTS

This list applies to both lower and higher plants. The abbreviations used in the species lists are: Lic = Lichen, Liv = Liverwort, Mo = Moss, St = Stonewort and VP = Vascular Plant. The definition of nationally scarce and rare is as follows:

Rare = occurring in 15 or fewer hectads (10 km squares) in the UK

Scarce = occurring in 16 – 100 hectads in the UK.

APPENDIX 2 – TARGET NOTES

Botanical Target Notes

Target Note 1. A patch of ruderals and bramble scrub dominated by *Rubus fruticosus* agg. (Bramble) with *Artemisia vulgaris* (Mugwort) and *Heracleum sphondylium* (Hogweed) and climbing *Calystegia sepium* (Hedge Bindweed).

Target Note 2. The main area of the site consisting of semi-improved neutral grassland with a sward height of 75 cm – 1 m and a rough grassland appearance. The main grass species is *Arrhenatherum elatius* (False Oat-grass), with occasional *Agrostis stolonifera* (Creeping Bent), *Dactylis glomerata* (Cock's-foot), *Holcus lanatus* (Yorkshire-fog) and *Lolium perenne* (Perennial Rye-grass). The non-native *Lolium multiflorum* (Italian Rye-grass) is also present. There is a diverse mix of forbs across the site of differing origins. Most species are common annuals, biennials and perennials found in neutral grassland sites. Some species are relicts from the allotments that have persisted following abandonment. A small number of species are more typical of calcareous grassland. All these species are summarised in the table below. There is scrub scattered throughout the grassland, predominantly of *Crataegus monogyna* (Hawthorn), but with an *Acer pseudoplatanus* (Sycamore) and the conifer *×Cupressocyparis leylandii* (Leyland Cypress).

Target Note 3. An area of tall ruderals and bramble scrub with some scattered scrub dominated by *Rubus fruticosus* agg. (Bramble) and climbing *Calystegia sepium* (Hedge Bindweed). There are saplings of *Acer campestre* (Field Maple), *Corylus avellana* (Hazel) and some *Rosa arvensis* (Field-rose).

Target Note 4. A small area of scrub with a mature *Populus ×canadensis* (Hybrid Black-poplar) and several immature *Populus ×canadensis* (Hybrid Black-poplar) likely to be suckering outgrowth. The other woody species include a large *Crataegus monogyna* (Hawthorn), a *Betula pubescens* (Downy Birch) sapling, *Prunus spinosa* (Blackthorn), *Rosa canina* (Dog-rose) and a dense patch of *Rubus ideaus* (Raspberry).

Target Note 5. A narrow strip of broadleaf semi-natural woodland. The most common woody species within the site boundary is *Salix cinerea* (Grey Willow), with scattered *Acer campestre* (Field Maple), *Crataegus monogyna* (Hawthorn), *Fraxinus excelsior* (Ash) saplings, *Quercus robur* (Pedunculate Oak) saplings and *Sambucus nigra* (Elder) also present. The field layer is dominated by *Hedera helix* (Ivy), particularly to the south, with localised patches of the non-native *Lamium galeobdolon* ssp. *argenteum* (Variegated Archangel). The woodland is more open at the northern boundary where a well-used footpath enters and here the field layer includes *Bromopsis ramosa* (Hairy-brome), *Geum urbanum* (Wood Avens), *Persicaria maculosa* (Redshank) and *Rubus fruticosus* agg. (Bramble).

Target Note 6. An area of tall ruderals with significant cover of non-native species including abundant *Lupinus cultivar*. (A Lupin), and *Symphytum ×uplandicum* (Russian Comfrey). *Salix cinerea* suckers are spreading into the area from the woodland strip. *Rubus fruticosus* agg. (Bramble) and *Senecio vulgaris* (Groundsel) are common and there is also scattered *Achillea millefolium*, *Clinopodium ascendens* (Common Calamint), *Heracleum sphondylium* z, and *Rosa arvensis* (Field-rose).

Target Note 7. A stand of almost pure *Aster x salignus* (Michaelmas Daisy) with some climbing *Calystegia sepium* (Hedge Bindweed) and *Vicia cracca* (Tufted Vetch) and a few individuals of *Chamerion angustifolium* (Rosebay Willowherb).

Target Note 8. A patch of tall ruderals dominated by *Urtica dioica* (Common Nettle) and with abundant *Calystegia sepium* (Hedge Bindweed), *Heracleum sphondylium* (Hogweed) and occasional *Artemisia vulgaris* (Mugwort).

Target Note 9. A small patch of trees formed of a ring of *Robinia pseudoacacia* (False-acacia) trees of approximated 25 cm dbh. Some *Crataegus monogyna* (Hawthorn) and *Sambucus nigra* (Elder) are growing amongst the *Robinia pseudoacacia* (False-acacia). There is a mature *Prunus avium* (Wild Cherry) at the southeast end of the area.

Target Note 10. A small strip of improved grassland with *Hordeum murinum* (Wall Barley) and *Lolium perenne* (Perennial Rye-grass) adjacent to a well used footpath and a farm track

Animal Target Notes

Animal Note 1. The site footprint is an area of mixed habitat with grassland, tall ruderals, patches of low thick scrub and occasional trees and bushes. This whole area has potential to support foraging Badgers, foraging bats, nesting birds, terrestrial Great Crested Newt and common reptiles.

Animal Note 2. An adult Common Lizard (*Zootoca vivipara*) was observed underneath an old wooden post on the ground.

Animal Note 3. A juvenile Common Lizard (*Zootoca vivipara*) was observed basking on an anthill.

Animal Note 4. An outgrown hedge with trees and scrub suitable for use by foraging Badgers, Badger sett building, foraging and commuting bats and Common Dormouse.

APPENDIX 3 – SPECIES LISTS

Table 1. Species found in the grassland in Target Note 2 with DAFOR codes.

Semi-improved grassland forbs	DAFOR	Grasses	DAFOR
<i>Achillea millefolium</i> (Yarrow)	O	<i>Agrostis stolonifera</i> (Creeping Bent)	R
<i>Achillea millefolium</i> (Yarrow) (red cultivar)	VR	<i>Arrhenatherum elatius</i> (False Oat-grass)	D
<i>Agrimonia eupatoria</i> (Agrimony)	R	<i>Dactylis glomerata</i> (Cock's-foot)	R
<i>Arctium minus</i> (Lesser Burdock)	R (always in shaded areas)	<i>Holcus lanatus</i> (Yorkshire-fog)	R
<i>Artemisia vulgaris</i> (Mugwort)	F	<i>Lolium multiflorum</i> (Italian Rye-grass)	VR
<i>Brassica napus</i> (Rape)	VR	<i>Lolium perenne</i> (Perennial Rye-grass)	R
<i>Calystegia sepium</i> (Hedge Bindweed)	F to LA		
<i>Carex spicata</i> (Spiked Sedge)	VR	Allotment relics	
<i>Chaerophyllum temulum</i> (Rough Chervil)	O	<i>Aster x salignus</i> (Michaelmas Daisy)	R
<i>Cirsium arvense</i> (Creeping Thistle)	R	<i>Lathyrus odoratus</i> (Sweet Pea)	R
<i>Convolvulus arvensis</i> (Field Bindweed)	R	<i>Lupinus</i> sp. (A Lupin)	R
<i>Cerastium fontanum</i> (Common Mouse-ear)	R	<i>Mentha spicata</i> (Spear Mint)	O
<i>Dipsacus fullonum</i> (Teasel)	O to LA	<i>Ribes uva-crispa</i> (Gooseberry)	R
<i>Epilobium hirsutum</i> (Great Willowherb)	R	<i>Rubus ideaus</i> (Raspberry)	O
<i>Equisetum arvense</i> (Field Horsetail)	LA	<i>Symphytum xuplandicum</i> (Russian Comfrey)	R
<i>Ficaria verna</i> (Lesser Celandine)	R		
<i>Filipendula ulmaria</i> (Meadowsweet)	R	Species typical of calcareous grassland	
<i>Fraxinus excelsior</i> (Ash) seedling	VR	<i>Centaurea scabiosa</i> (Greater Knapweed)	R
<i>Geranium rotundifolium</i> (Round-leaved Cranesbill)	R	<i>Galium verum</i> (Lady's Bedstraw)	R
<i>Picris echioides</i> (Bristly Ox-tongue)	R	<i>Hypericum perforatum</i> (Common St John's-wort)	O

Semi-improved grassland forbs	DAFOR	Grasses	DAFOR
<i>Heracleum sphondylium</i> (Hogweed)	F	<i>Knautia arvensis</i> (Field Scabious)	R
<i>Malva sylvestris</i> (Common Mallow)	R	<i>Leucanthemum vulgare</i> (Oxeye Daisy)	R
<i>Medicago lupulina</i> (Black Medick)	O	<i>Lotus pedunculatus</i> (Greater Bird's-foot-trefoil)	O
<i>Persicaria maculosa</i> (Redshank)	R	<i>Poterium sanguisorba</i> ssp. <i>sanguisorba</i> (Salad Burnet)	R
<i>Plantago lanceolata</i> (Ribwort Plantain)	O		
<i>Plantago major</i> (Greater Plantain)	R		
<i>Potentilla reptans</i> (Creeping Cinquefoil)	O		
<i>Rubus fruticosus</i> agg. (Bramble)	F		
<i>Rumex sanguineus</i> (Wood Dock)	R		
<i>Senecio vulgaris</i> (Groundsel)	F		
<i>Salix alba</i> (White Willow)	VR		
<i>Sonchus asper</i> (Prickly Sow-thistle)	O		
<i>Solidago canadensis</i> (Canadian Goldenrod)	R		
<i>Stachys sylvatica</i> (Hedge Woundwort)	R		
<i>Trifolium pratense</i> (Red Clover)	R		
<i>Trifolium repens</i> (White Clover)	R		
<i>Urtica dioica</i> (Common Nettle)	R		
<i>Verbascum thapsus</i> (Great Mullein)	R		
<i>Vicia cracca</i> (Tufted Vetch)	O		
<i>Vicia tetrasperma</i> (Smooth Tare)	O		

APPENDIX 4 – LEGISLATION

Bats

Bats are European Protected Species listed in Scotland on The Conservation (Natural Habitats, & c.) Regulations 1994 (as amended). This legislation makes it an offence to:

- deliberately capture, injure or kill;
- deliberately disturb, including in particular any disturbance which is likely (a) to impair their ability - (i) to survive, to breed or reproduce, or to rear or nurture their young; or (ii) hibernate or migrate, where relevant; or (b) to affect significantly the local distribution or abundance of the species to which they belong.
- damage or destroy a breeding site or resting place; and
- possess, control, transport, sell, exchange, or offer for sale or exchange.

Badger

Meles meles (Badger) is protected in Britain under the Protection of Badgers Act 1992 and Schedule 6 of the Wildlife and Countryside Act 1981 (as amended).

The legislation affords protection to Badgers and Badger setts, and makes it a criminal offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or to attempt to do so;
- intentionally or recklessly interfere with a sett by damaging or destroying it;
- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

Common Reptiles

Lacerta vivipara (Common Lizard), *Anguis fragilis* (Slow-worm), and *Vipera berus* (Adder) are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), in respect of Section 9(5) and part of Section 9(1).

Under the above legislation it is an offence to:

- intentionally or deliberately kill or injure any individual of such a species; or
- sell or attempt to sell any part of the species alive or dead.

Nesting Birds

All species of bird are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended).

The legislation makes it an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built;
or
- take or destroy an egg of any wild bird.