

Extended Phase One Habitat Survey (Preliminary Ecological Appraisal)

Land to the North of the Elms, Darland Lane, Rossett
Prepared for: Teqniqa Systems

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1. Introduction

1.1 Background to the project

The client proposes a change of use of a building formerly used for storing equipment for the Darland Golf Club to a workshop/office/research and development building. Pre-application consultations were held with Wrexham County Borough Council (ENQ/2017/0211, 24 November 2017, Philip Forster) whom confirmed an ecological report would be required to support a formal planning application.

1.2 Site Location and Context

The site is rural in nature and located on the eastern edge of Darland settlement with large agricultural field enclosures to the north, east and south. There are areas of extensive semi natural habitat including woodland, lakes and ponds to the west. Pulford brook is located to the north (eventually feeding Pulford Meadow SSSI) and several connecting hedgerows and several building types are all present within the locality.

1.3 Report purpose

To prepare a Preliminary Ecological Assessment or Extended Phase One Habitat Survey for the development site following CIEEM guidelines (*Guidelines for Preliminary Ecological Appraisal, April 2013*). The purpose of the report is to provide information relating to the location, extent and distribution and impact on the conservation of wild plants and animals and natural and semi natural habitats affected by development. This report sets out the methods, results and recommendations arising from the above work.

1.3.1 Surveyor information

Simon Brain has attained a Post Graduate Certificate in Biological Recording and has attended residential FSC Field Courses for Land mammal identification, Songbird identification, Barn Owls (CIEEM) and Advanced Bird Survey Techniques (Level M). He holds a NE Class 2 bat license (17334-CLS).

2. Desk Study

2.1 Methodology

The desk study collated information on designated statutory and non-statutory wildlife sites within 1km search radii around the proposed development site.

Information on non-statutory designated sites and legally protected/notable species records were obtained from the Local Records Centre (COFNOD) and <http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>. The sites grid reference used for the data search is SJ3792758020 and the results are contained in Appendix 3 and in section 2.2 below.

2.2 Designated sites, species and habitats - Results Overview

<http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx> has confirmed the following apply to the site. Approximately 2 miles from site to the east is the River Dee and Bala Special Area of Conservation (SAC), Site of Special Scientific Interest (SSSI) and the Old Pulford Brook Meadows site SSSI (Wales). Marford Quarry and Chwarl Singret SSSI are located 1.64 / 2.32miles from site. The site is therefore within the SSSI Impact Risk Zones, for these designations but development proposals do not include any of the types of development that could potentially have an adverse impact such as aviation proposals, quarrying or air pollution considerations. In addition to this the development is located 1.8 miles from SAC. Vicarage Moss (Midland Meres and Mosses RAMSAR site) is located over 2.5 miles south of site.

No Non-statutory designations were found using <http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>

4.73 ha of broadleaf woodland to the west of Darland golf course and a large strip of linear woodland are present as priority habitat within the search areas as-well as occasional areas of planted woodland.

The records include the area being under a countryside stewardship priority area for lapwing species and the area forms part of the Bird Conservation

Targeting Project for arable and grassland assemblages of bird species including curlew, grey partridge and lapwing covering the site areas.

The closest granted European Protected Species (EPS) license application by Natural England was for Bat species approximately 1.15 miles from site for common pipistrelle, brown long ear, natterers and soprano pipistrelle species running from 2015 – 2021.

COFNOD has confirmed a total of 179 records from 1.5km from the site centroid grid reference. No records are provided for the site or within its immediate site boundaries. The closest record is Barn Owl (Wales Rare Breeding Birds and Raptor Study Group - North East) which is recorded as nesting in the area. Grass snake was recorded in 2012 within the locality and in 2014 over 700m from site. Several records are provided for rhododendron in woodlands and himalayan balsam (non-native invasive) within the locality. Unknown bat sightings are provided within 500m and an extensive amount of moth species have been recorded. Otter has been recorded within the search area between 1996-2001 and a badger record appears from Clwyd Badger Group over 500m from site in 2001. Avian records include skylark, spotted flycatcher, house sparrow, swallow, bullfinch, starling and snipe. The nearest great crested newt record is almost 800m from site in 2007.

3. Extended Phase One Habitat Survey

3.1 Methodology and survey results

The site was visited on the 4th March 2018 and a survey of the site was conducted using the Joint Nature Conservation Committee (JNCC) Handbook for Phase 1 habitat survey 2010. Distinct habitats were identified and any features of nature conservation interest or habitat areas that were too small to map were subject to a more detailed description in a Target Note (TN) and contained in Appendix 1 – Extended Phase 1 Habitat Survey Mapping and Appendix 2 – Vascular Plant Site List. Habitat coding identified within the survey are listed below and shown on the Habitat Plan.

3.1.2. Vascular Plants and Habitat

Habitat Code	Dominant species	Less frequent species
A.3.2 Scattered tree	Quercus robur	Acer pseudoplatanus Crataegus monogyna
C.3.1 Tall ruderal	Urtica dioica Chamerion angustifolium Arctium lappa	Rubus agg. Ficaria verna
J1.2 Amenity grassland	Festuca rubra Lolium perenne Taraxacum officinale Trifolium repens Poa annua	Bellis perennis Geranium robertianum
J.2.1.1 Intact species rich hedge	Crataegus monogyna Prunus spinosa	Fraxinus excelsior Ulmus sp
J.2.1.2 Intact species poor hedge	Crataegus monogyna	

Target Notes

Tn1 – Rubble pile of potential interest to reptile and amphibian

Tn2 – medium sized mammal run (rabbit)

3.1.3 Protected and Notable Species (Mammals)

Water Voles

The habitat on the site does not contain suitable running water habitat and no records are provided.

Bat species

Bats are comprehensively protected under European legislation. The LRC have a confirmed numerous bat species records within the 1km study area. There is a single building on site to consider for roosting bats and it is considered that no trees on the site are affected. The building is clad in a pre-fabricated wavy metal sheets and generally appears to be in good repair. No signs of bat use on the building were found and few areas of potential shelter were present. Areas of potential bat shelter that do exist consist of areas created by overlapping metal cladding from gable ends to elevations. Using a high-powered torch, it can be demonstrated that any bat access into the building through overlapping cladding is limited. The building has a low potential to hold bats. The study area is suitable for foraging bats due to the presence of grassland, trees, nearby ponds. The number of moth records provided is notably high in this area which are a significant food source for all bats.

Badger

Badgers are protected under Schedule 6 of the Wildlife and Countryside Act 1981, and under the Protection of Badgers Act 1992, which prohibits deliberate interference with the animal or its sett. A standard badger survey was undertaken making checks site and in the immediate site margins. For example, up to 15m+ from site was checked for signs for field signs of Badger (hair, tracks, prints, dropping or latrines) and none were found. A single medium sized mammal run was found (Tn2) which was attributed to rabbit.

Hedgehog

Field signs of this species were checked such as droppings and footprints during the walkover survey and none were found.

3.1.4 Amphibians

There is no aquatic breeding habitat on the site and four ponds are located within 250m of site. Pond 1 is located 110m north east and contains emergent vegetation suitable for GCN breeding. P1 is shallow and appears fish free and has potential to hold GCN. P2 is located 25m south west of site entrance it is in private ownership and appears as a domestic pond with fish. P3 is located 210m south east of site which could not be accessed. P4 is located 230m east of site in dense woodland, it is a large pond possibly containing fish.

The site and the site margins provide suitable dispersal / foraging opportunities in the grassland and hedges and hibernating habitat within the rubble pile.

3.1.5 Birds

All birds with only minor exceptions are protected under the Wildlife and Countryside Act (1981), as amended. It is also an offence to disturb birds whilst nesting or displaying breeding behaviour, during the breeding season.

Although no specific bird survey was undertaken the site is unlikely to support a significant amount of farm land and / or grassland birds due to physically small area it occupies. Urban species such as house sparrow and swallow may use the building within the breeding season.

3.1.6 Vascular Plants

No non-native invasive (WCA Schedule 9) vascular plants were found and no IUCN listed, BAP or other notable plants were identified.

3.1.7 Reptiles

There is a limited amount of suitable habitat for reptiles in the rubble pile (Tn1) and the hard standing surrounding the existing building. In addition, three records from the LRC data have been provided for Grass snake (live sightings). The closest is 246m from site in 2014.

3.2. Constraints to the Surveys

The timing of the site visit was sub optimal for all species and habitats to be identified within the framework of a Phase 1 survey.

No internal building access was gained.

4. Summary/Impact and Recommendations

4.1 Summary – Protected habitats

The surveys have confirmed that the site does not support habitats protected under Section 41 of the Natural Environment and Rural Communities (*NERC*) Act 2006 - Habitats and Species of Principal Importance in England.

Summary - Protected species

No evidence of protected species was recorded on site. There are no protected higher plants species present during the survey and no non-native invasive plants were identified.

Summary – Protected sites

There are no protected sites (statutory or non-statutory) within the boundaries of the site.

Impact

The proposal seeks to modify the existing building which could impact bat species particularly. As the overall habitat (amenity grassland) is largely unsuitable for protected species it is considered the impact of construction on protected species is likely to be negligible. It is considered that following further survey works as recommended in section 4.2 any potential breaches of wildlife legislation can be avoided by presence / absence surveys and / or reasonable avoidance measures undertaken during construction.

4.2 Recommendations for protected species

4.2.1 Mammals

Bats. A bat emergence survey on the building is required in order to demonstrate absence / presence within the building. An activity survey is needed to establish if which cannot be undertaken until May 2018.

Badger/hedgehog and water vole. No further surveys are required

4.2.2 Amphibians

Great Crested Newt. A Habitat Suitability Index (HSI) assessment is required for Pond 1 due to its potential to hold GCN. The use of eDNA to confirm absence / presence is needed to inform of any mitigation requirements. Following this assessment mitigation details and reasonable avoidance measures can be confirmed.

4.2.3 Avian

A precautionary breeding bird survey will be required prior to any building works to check the areas of removal for breeding birds within the breeding bird season (April – October inclusive). This may require hand searching and dawn observations depending upon the time of year.

4.2.4 Vascular Plants

No other further surveys are required for Vascular Plants

5. Mitigation / Enhancement measures

5.1 Mitigation and enhancement measures

Mitigation applies to works required to comply with legislation when developing land where protected species reside or protected habitats are being lost. Enhancement relates to biodiversity improvements often made under the National Planning Policy Framework.

At present there is no evidence of protected species on the site and therefore no mitigation is needed or can be proposed until the presence of a protected species has been confirmed.

Habitat and enhancement measures

The following enhancement measures are site specific:

- Species specific nest boxes for birds such as Starling and House Sparrow. Sparrow terrace nest boxes could be affixed to the new property and Starling nest boxes shall be fixed to single mature Ash tree
- A landscaping scheme shall focus on the installation of a native, nectar rich, native tree and shrub species of local provenance. These are recommended in preference to non-native, ornamental species. Planting of tree and shrub species that support a high insect biomass and provide a potential food source such as rowan, silver birch, alder buckthorn, dogwood, crab apple and wild plum are recommended.
- In addition, the use of a planted hedgerow sections of a mixed native and species rich composition

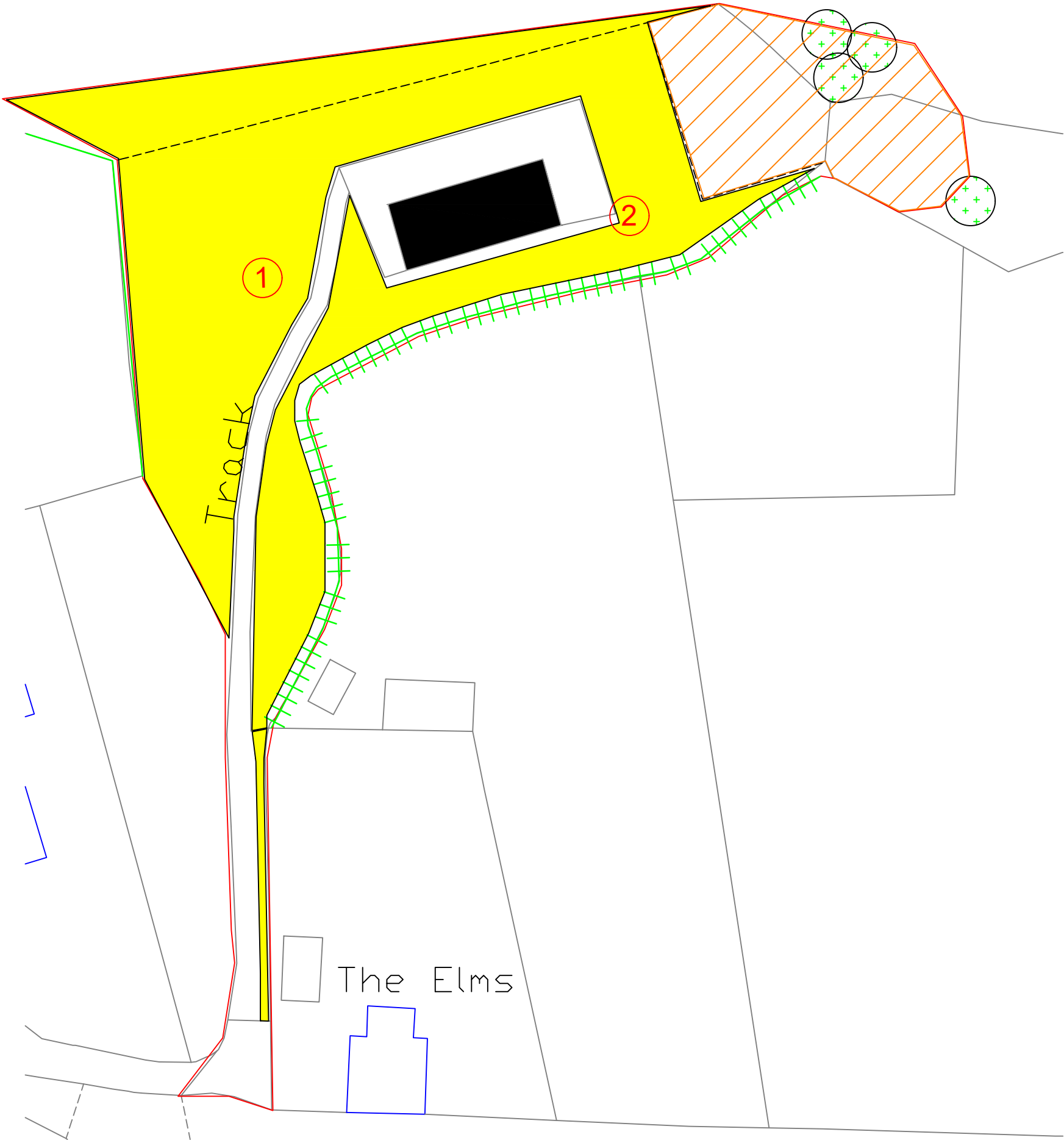
Appendix 1 Extended Phase 1 Habitat Survey Map

PHASE ONE HABITAT MAP

KEY

- A.3.1. Scattered trees
- C.3.1. Tall ruderal
- J1.2 Amenity Grassland
- J6 Building
- J2.1.2 Intact species poor hedge
- J2.1.1 Intact species rich hedge

① Target Notes 1 – 2. Refer to Preliminary Ecological Appraisal



Client:
Teqniqa Systems

Project:
Darland Ln

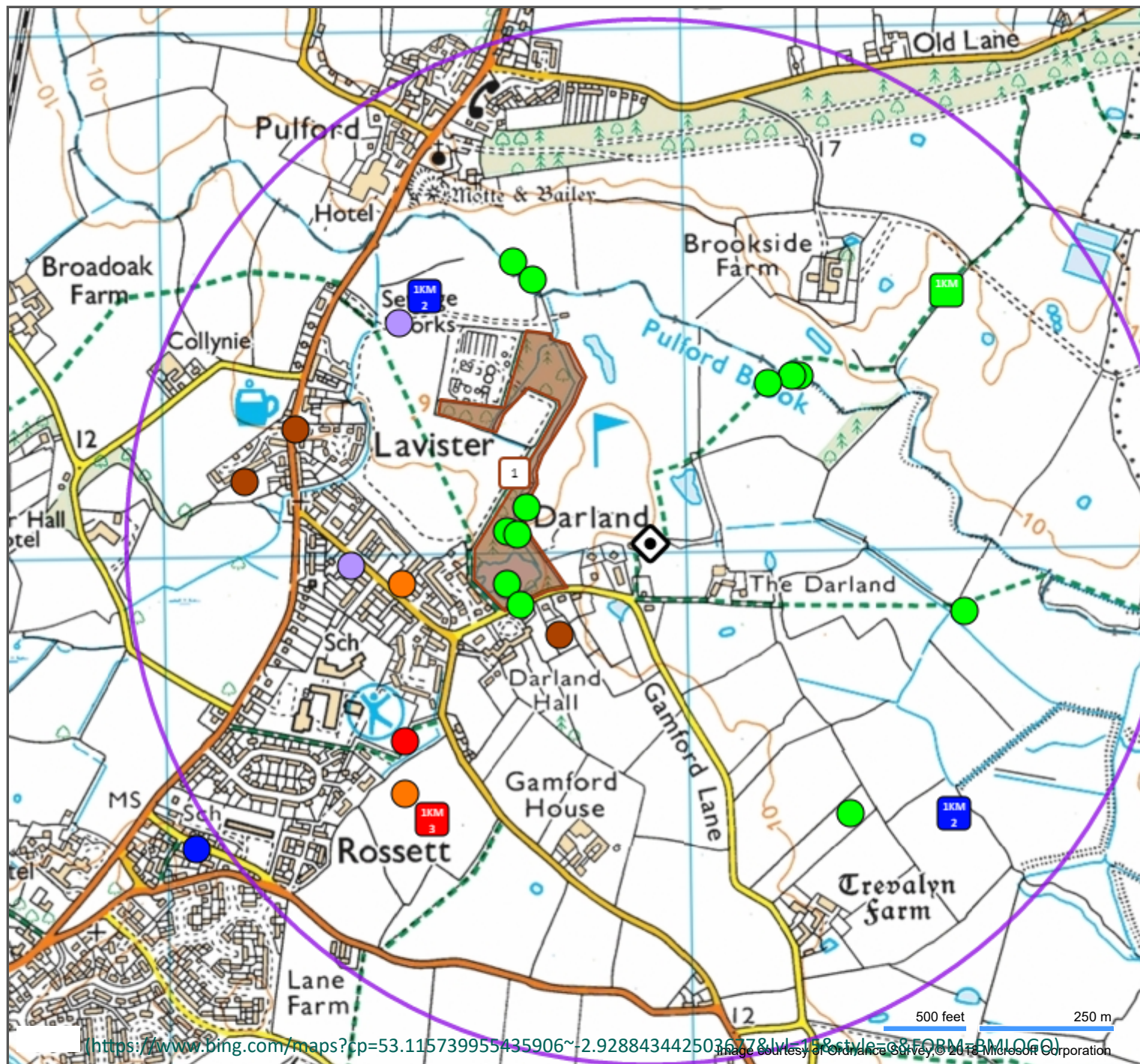
Detail:
Phase One Habitat Map

Drawn By: SB Date: 04 04 18 Scale: NTS

Drg No: TR-01 Revision: V1

Appendix 2 Site Vascular plant list

Acer pseudoplatanus
Alnus glutinosa
Aegopodium podagraria
Arctium lappa
Bellis perennis
Chamerion angustifolium
Cirsium arvense
Craetagus monogyna
Festuca rubra
Ficaria verna
Fraxinus excelsior
Galanthus sp.
Galium aparine
Geranium robertianum
Hedera helix
Ilex aquafolium
Jacobea vulgaris
Lamium purpureum
Lolium perenne
Malus sylvestris
Plantago lanceolata
Poa annua
Populus nigra betulifolia
Prunus spinosa
Prunella vulgaris
Pyrus sp.
Quercus robur
Ranunculus repens
Rubus agg.
Rumex acetosa
Salix caprea
Sambucus nigra
Taraxacum officinale
Trifolium repens
Ulmus sp
Urtica dioica



Key



Search Location



Search Buffer (1000m)

● Birds

● Butterflies and Moths

● Mammals

● Other Invertebrates

● Plants

● Reptiles and Amphibians

■ Wildlife Sites

1: W332: Darland Wood