

Preliminary Ecological Appraisal Report

At

Keepers Cottage,
Lowthorpe
Nr Driffield
YO25 4AU

For

Ben Legard Estates

Date: 10th March 2020

Reference no CE0741

Curtis Ecology

Nova Scotia Farm, The Valley, Rimswell, Withernsea, East Yorkshire HU19 2BZ

T 01964 614295

M 07716260006

E roger@curtisecology.co.uk

www.curtisecology.co.uk

© Curtis Ecology



Document Control Sheet

Client: Ben Legard Estates

Project: Keepers Cottage, Lowthorpe, Nr Drifffield, YO25 4AU.

Title: Preliminary Ecological Appraisal Report

REPORT CONTROL SHEET

General Report Information	
Date of site risk assessment	25 th February 2020
Lead ecologist signature	
Date report issued	10 th March 2020
Report approved by	

Report Version Control

Version	Date	Author	Description
1.0	10 th March 2020	Roger Curtis	Original version

CONTENTS

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	2
1.1 Site Description	2
1.2 Proposed Works	3
1.3 Survey Objectives	3
2.0 SURVEY METHODOLOGY	3
2.1 Desk top study	3
2.2 Field Surveys	3
2.3 Protected/ Notable Species	4
2.4 Survey Limitations	6
2.5 Weather Conditions	6
2.6 Survey Personnel	6
3.0 SURVEY RESULTS	7
3.1 Desk top study	7
3.2 Habitats	10
3.3 Protected and notable species	14
4.0 ASSESSMENT & RECOMMENDATIONS	26
4.1 Designated sites	26
4.2 Habitat	26
4.3 Protected and notable species	27
5.0 LEGISLATION	31
6.0 PLANNING POLICY	33
7.0 REFERENCES	35
8.0 APPENDICES	36
Appendix 1. Species List	36
Appendix 2. Nationally Designated Sites Map 2km	37
Appendix 3. Locally Designated Sites Map 2km	38
Appendix 4. Priority Designated Sites Map 2km	39
Appendix 5. Phase 1 Habitat Map	40

EXECUTIVE SUMMARY

Curtis Ecology was instructed by Dee, Atkinson & Harrison, on behalf of the client, Ben Legard Estates to undertake a Preliminary Ecological Appraisal on a parcel of land and buildings found within the curtilage of Keepers Cottage, Lowthorpe, Nr Drifffield, YO25 4AU. The survey is required to inform a proposed planning application which is to be lodged with the local planning authority, in this case the East Riding of Yorkshire Council for the erection of a dwelling on virtually the same footprint as the existing dwelling and outbuildings, following the demolition of the existing dwelling and range of outbuildings.

The Preliminary Ecological Appraisal was undertaken on the 25th February 2020. A desk study was undertaken with records being obtained from the following third party repositories the North & East Yorkshire Ecological Data Centre, East Yorkshire Bat Group, with a review of Multi-Agency Geographical Information of Conservation (MAGIC) and Google Earth.

The following species were considered within this Preliminary Ecological Appraisal:

- Badgers
- Bats
- Great Crested Newts
- Nesting birds

Recommendations include:

Badgers: - No further survey work or mitigation required

Bats: – Nocturnal surveys to be undertaken on Buildings 1, 2 & 3 between May and mid-September 2020 prior to any development being undertaken.

Great crested newts: – No further survey or mitigation work required.

Nesting birds: –

- No further survey work required.
- Mitigation and Enhancement measures proposed

All the results and full recommendations can be found within Sections 3.0 and 4.0 of this report

The application site as a whole was considered to be of Low Ecological Value.

1.0 INTRODUCTION

Curtis Ecology was instructed by Dee, Atkinson & Harrison, on behalf of the client, the Ben Legard Estates to undertake a Preliminary Ecological Appraisal on a parcel of land and buildings found within the curtilage of Keepers Cottage, Lowthorpe, Nr Driffield, YO25 4AU. The survey is required to inform a proposed planning application which is to be lodged with the local planning authority, in this case the East Riding of Yorkshire Council, for the erection of a dwelling on virtually the same footprint as the existing dwelling and outbuildings, following the demolition of the existing dwelling and range of outbuildings.

The Preliminary Ecological Appraisal was undertaken on the 25th February 2020. A desk study was undertaken with records being obtained from the following third party repositories the North & East Yorkshire Ecological Data Centre, East Yorkshire Bat Group, with a review of Multi-Agency Geographical Information of Conservation (MAGIC) and Google Earth

1.1 Site Description

The application site is located in a relatively rural location, towards the eastern end of Lowthorpe village. The site is approximately 0.3 ha in area, has a relatively level topography and is centred on Grid reference TA085 607. The study site is comprised of the detached dwelling, a range of single storey outbuildings, and managed amenity grassland with a scattering of both deciduous and coniferous trees. Two ornamental fish ponds are in the south west corner and the boundaries are defined by a mix of fencing types, along with a short length of species poor hedgerow.

The immediate surrounding habitat is dominated by intensive farmed arable and grassland, with boundary hedgerows. A plantation is located to the north east and the River Hull Headwaters SSSI is located approximately 0.25km to the east.

Figure 1 Arial view with the Study site illustrated within the wider landscape.



©Google Earth 2020.

1.2 Proposed Works

It is understood that the development proposal is for the erection of a dwelling on virtually the same footprint as the existing dwelling and outbuildings, following the demolition of the existing dwelling and range of outbuildings.

1.3 Survey Objectives

The aim of the Preliminary Ecological Appraisal was to:

- Perform a desk study and records searches from a number of sources including third party repositories to enable the identification of any designated sites, along with existing records for any protected and notable species within and around the study site.
- Examine the potential for protected and notable species within the application site and the immediate surrounding area during the field survey and discuss the current legislation relevant to these species.
- Produce a map to identify, classify existing habitats and features within the site
- Prepare a report on the findings from information collated from the data/records searches and the field survey to identify any potential constraints and opportunities for the site, including the need for further surveys if required.

2.0 SURVEY METHODOLOGY

2.1 Desk Study

A desk study was undertaken with records being obtained from the following third party repositories the North & East Yorkshire Ecological Data Centre with reference to the East Yorkshire Bat Group, and a review of MAGIC and Google Earth. The search area was a 2km radius from the centre of the application site located at Grid reference TA085 607.

2.2 Field Survey

2.2.1 Ecological Appraisal Survey

The survey was undertaken on the 25th February 2020 with the weather conditions at the time of the survey being illustrated below in Table 2. Using a modified standard Phase 1 Habitat assessment methodology JNCC (2010), the application site was walked over to identify, classify and map the habitat types present marking any features on a base field map. Target notes (T) where applicable will be used to identify any potential for protected / notable species or habitats present and to give more detail on any points of interest.

2.3 Protected/ Notable Species

During the survey observations are made for any field signs or suitable habitats for any protected/notable species.

An assessment was made for the suitability of the site for the following protected/notable species:

- Badgers
- Bats
- Great Crested Newts
- Nesting birds

2.3.1 Badgers

All areas of potential for badgers were surveyed, which includes woodland, small copses, hedgerows, embankments and well-worn paths within the study site and up to 50m from the application site red line boundary where access was granted.

Field signs of Badgers would include the following:

- Sightings, main and annex setts, well-worn tracks, footprints, latrines and dung pits, snuffle holes, hair remains on barbed wire fencing.

2.3.2 Bats

Assessments are made during the initial field survey for potential roosting features and foraging areas within the site footprint and immediate surrounding area. These will include buildings, woodland, individual trees, hedgerows and any aquatic features.

Visual assessments for trees would include the following signs: trunk diameter, rot holes, splits, loose bark, staining of the bark below or around a feature and a covering of ivy.

2.3.3 Great Crested Newts

Although Great Crested Newts are terrestrial for most of the year they do require standing water for breeding purposes. Therefore the study site was assessed for the suitability and potential to support the species together with the surrounding habitat within 500m of the study site itself.

Water bodies within a 500 m radius of the application site, where permission had been granted from the landowner at the time of this field survey were assessed utilising the Great Crested Newt Habitat Suitability Index (HSI) (Oldham *et al* 2000). The HSI is a numerical index between 0 and 1, where a score of 1 represents optimal habitat for great crested newts. The HSI score is used to define the suitability of a pond on a categorical scale (Table 1).

Table 1 Great Crested Newt HSI Score Index.

HSI Score	Pond Suitability
<0.5	Poor
0.5-0.59	Below average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

The HSI score is achieved by assigning a quantities figure to each of the following 10 variables:-

SI 1 - Map location,

SI 2 - Pond area

SI 3 - Number of years in ten pond dries up

SI 4 - Water quality

SI 5 - Percentage of perimeter shade

SI 6 - Waterfowl impact

SI 7 - Fish impact

SI 8 - Number of ponds within 1km not separated by barriers to dispersal

SI 9 - Terrestrial habitat

SI10 - Percentage of pond surface occupied by aquatic vegetation

The tenth root of the product of the variables is then calculated to give the figure for habitat suitability.

$$HSI = (SI1 \times SI2 \times SI3 \times SI4 \times SI5 \times SI6 \times SI7 \times SI8 \times SI9 \times SI10)^{1/10}$$

The HSI calculation for each pond was derived at, using the automated formula found within the Natural England Mitigation Licence Application Form, Section C3.5 Waterbodies: quantitative assessment.

Terrestrial habitat suitable for Great Crested Newts would include woodland, scrub and tussocky grassland, although they can be found in a broad range of sub- optimal habitats.

2.3.4 Nesting Birds

Birds may use a variety of features for nesting both natural and artificial. Typical features would include buildings, hedgerows, trees, scrub and grassland. During the field survey observations are made for sightings and calls of birds, evidence of previous and active nesting and evidence of roosting places.

2.3.5 Plant Species

The site was surveyed for any protected/notable plant species as well as for the presence of invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

2.4 Survey Limitations

The application site was fully accessible on the day of the field survey. However it should be noted that whilst the survey was appropriately intensive and we feel that no significant matters have been overlooked there is always potential for some species to be overlooked due to the time of year and mobility of these species.

2.5 Weather conditions.

Table 2. Weather conditions at the time of the survey.

Survey date	25 th February 2020
Wind speed	10 mph east
Cloud cover	50%
Rainfall	None
Temperature	4°C
Humidity	85%

2.6 Survey personnel.

The site survey was undertaken by the following personnel:

Roger Curtis FdSc who has 12 years survey experience and holds the follow Natural England licences; -

Bats – WML-CL18 class licence 2015-12148-CLS-CLS

Bats - Personal licence for possession licence no 20131261

Great crested newts – WML-CL08 class licence, 2015-17362-CLS-CLS

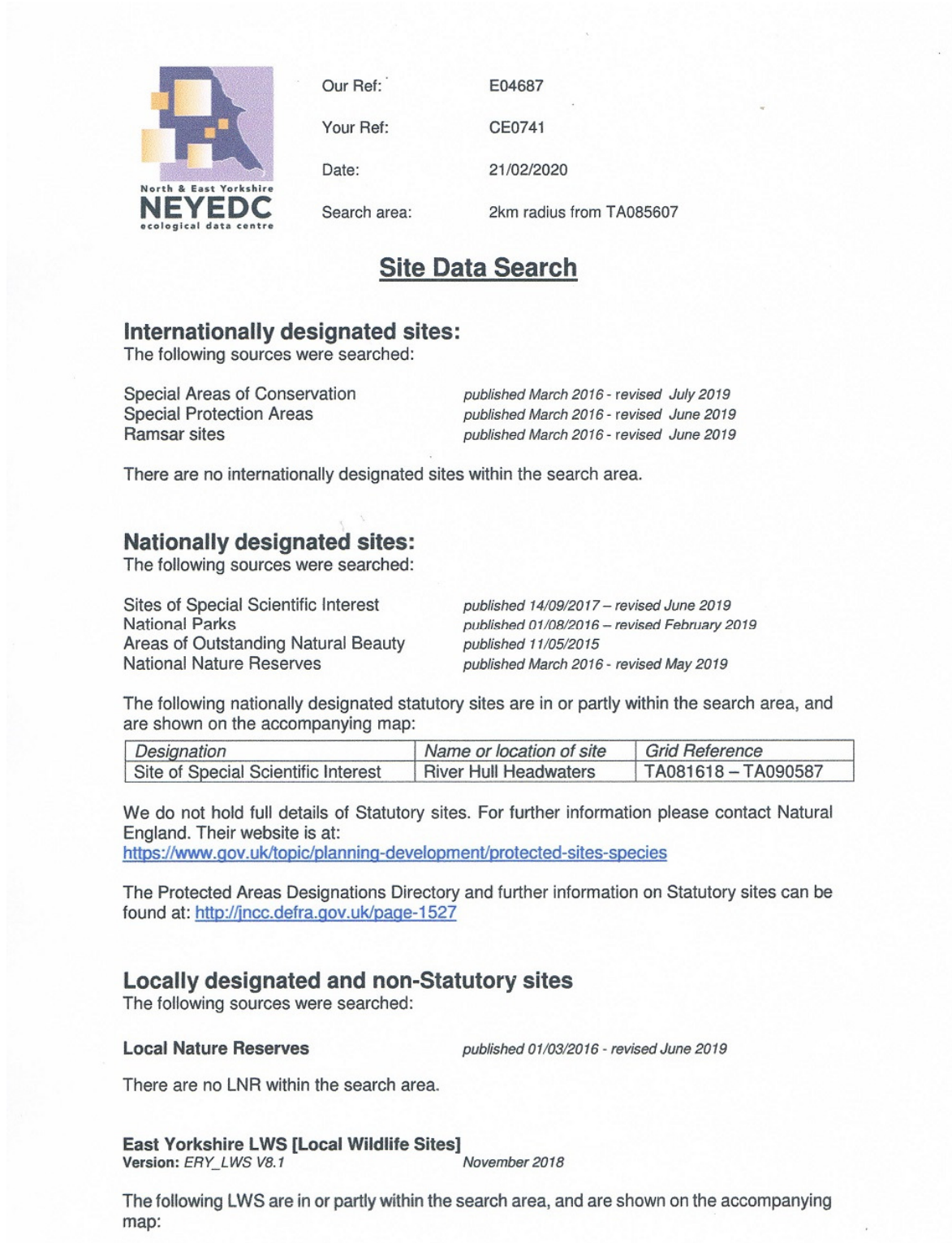
Roger is also a committee member of the East Yorkshire Bat Group and County Bat Recorder.

Beth Bell FdBa who has undertaken numerous dusk & dawn surveys over the past three years, as well as assisting with building and trees assessments. Beth is currently in the final stage of assessment for a Natural England level 2 class bat licence

3.0 SURVEY RESULTS

3.1 Desk Study

Figure 2. Pre-existing Site Designations





Our Ref: E04687
 Your Ref: CE0741
 Date: 21/02/2020
 Search area: 2km radius from TA085607

Site Id	Site Name	Grid Reference	LWS Status
TA0560-07	Lingholmes Plantation	TA094607	Deleted LWS
TA1060-03	Little Kelk Verge	TA110618-TA097603	Designated LWS
TA0560-02	Church Wood	TA079609	Deleted LWS
TA0560-04	Ruston Parva Chalk Quarry	TA069616	Deleted LWS
TA0560-01	Quintin Bottom	TA078620	Candidate LWS
TA0555-08	Little Kelk Grassland	TA099595	Historic LWS
TA0560-08	Station Road, Lowthorpe	TA091601-TA088613	Deleted LWS
TA1060-05	Little Kelk Wetland	TA103604	Designated LWS
TA0560-06	Kilham - Harpham	TA074640-TA081624	Deleted LWS

Candidate Local Wildlife Sites

These sites have either not been surveyed, or no East Riding of Yorkshire LWS Panel decision has been reached on their status. This designation is only be applied where there is compelling evidence to support the site having substantive value and includes, but is not limited to anecdotal species records, aerial photography, historic maps and application of the Radcliff criteria, especially with regard to size and a sites' position in an ecological unit.

Historic Local Wildlife Sites

Historic LWS have not been surveyed under the current LWS system (since 2007), but unlike a Candidate LWS these sites lack compelling evidence of any substantive value, but equally lack compelling evidence to support their deletion.

Deleted Local Wildlife Sites

The decision to delete LWS by the East Riding of Yorkshire LWS Panel is made based on one of the following situations;

- The site overlaps with a statutory designated site e.g. SSSI
- The site overlaps with another LWS or has been merged with another
- The site no longer exists e.g. through changes in land use or management
- The site has been surveyed and does not meet the robust LWS Guidelines for designation on habitat grounds.

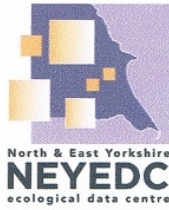
In many cases just because a site has not met the high criteria for designation as a LWS it does not mean that it has no value for wildlife. The assessment is based on a botanical survey of the habitat and does not include surveys for animals including protected species, which the site may support. It may also be important as a local habitat as part of wider habitat network(s). It may be possible to enhance the value of the site for wildlife with certain types of management, which could even bring the site up to the standard required for designation as a LWS. If the site has been surveyed the citation for the deleted site will provide a description, botanical species list and scores against the LWS criteria.

Yorkshire Wildlife Trust Reserves

Version: YWT Reserves

January 2019

There are no YWT reserves within the search area.



Our Ref: E04687
Your Ref: CE0741
Date: 21/02/2020
Search area: 2km radius from TA085607

Site-based Habitat data:

Areas of habitats in or partly within the search area occurring in the Natural England Ancient Woodland Inventories and/or Priority Habitats are shown on the accompanying map, and are listed below:

Ancient Woodland Inventory

Version: *Ancient Woodlands*

July 2019

<i>Habitat type</i>	<i>Location or comments</i>
Ancient and Semi-Natural Woodland	None within the search area
Planted Ancient Woodland Sites	

Priority Habitat Inventory

Version: *Priority Habitats Inventory*

August 2017

<i>Habitat type</i>	<i>Location or comments</i>
Deciduous woodland	Several parcels throughout search area
Lowland fens	Adjacent to Kelk Beck W of Harpham
Purple moor grass and rush pasture	Adjacent to Kelk Beck W of Harpham
Lowland meadows	E of road from Harpham to Great Kelk

The relevant 2km Designation & Habitat maps are illustrated in Appendices 2 & 3 of this report.

3.1.1 Species records

Species records were obtained from the North & East Yorkshire Ecological Data Centre and East Yorkshire Bat Group

In total 52 historical records for protected or notable species were obtained from the third party repositories, with no historical records relating to the application site itself.

Where relevant they are mentioned in Section 3.3 of this report and the full list can also be obtained from ourselves upon request.

3.2 Habitats

The following habitats were found within the study area:

Broad-leaved scattered trees B3.1

Several semi-mature and mature Beech *Fagus sp*, Hazel *Corylus avellana*, and Sycamore *Acer pseudoplatanus* are found within the conifers along the northern boundary of the site. A single Witch hazel *Hamamelis sp*, is located at the southern end of the western boundary. Two mature Sycamore stand with the amenity grassland along with a scattering of Domestic apple *Malus domestica* and two mature Hawthorn *Crataegus monogyna*.

Coniferous scattered trees B3.2

Several young/semi mature Blue spruce *Picea pungens* and Scots pine *Pinus* stand in two planted rows along the northern boundary.

Open water G1

Two ornamental fish ponds are in the south west corner of the site. Descriptions of both ponds can be found in section 3.3.3.1 of this report

Amenity grassland J1.2

A well maintained lawn dominates the study site. Species include Annual meadow-grass *Poa annua*, Fescue sp, Rygrass, *Lolium sp*, (dominate) and Yorkshire fog *Holcus lanatus*, with forbes including Common chickweed *Stellaria media*, Creeping buttercup *Ranunculus repens*, Daisy *Bellis perennis*, Dandelion *Taraxacum officinale*, Lords & ladies *Arum maculatum* Snowdrop *Galanthus nivalis*, White clover *Trifolium repens*

Introduced shrub J1.4

A small circular shrub bed is found to the immediate north of the ornamental ponds. Species include Lilac *Syringa sp*, Primula sp, Snowdrop *Galanthus nivalis*, Winter Pansy *Viola sp* White clover *Trifolium repens*

Intact hedge species poor J2.1.2

A managed Hawthorn *Crataegus monogyna* hedge approximately 1.5m high by 1m wide forms the site boundary along the south west corner.

Fence J2.4.

The east and north boundaries are formed by 2.1m high Harass fencing. The majority of southern boundary is defined by a mix of 2m high boarded fencing and 2m high decorative lap and trellis fence panels, with a short run of post and wire fencing towards the eastern section of this boundary. A short run of post and rail timber fencing is found between the small outbuilding and the dwelling. A 2m high timber boarded fence forms the boundary in the north west corner between the dwelling and Building 2. There is negligible ecological value associated with any of these fence lines.

Buildings J3.6

Descriptions of the building on site can be found within the Bat Section 3.3.2 of this report.

Bare ground J4.

This form of habitat forms the site entrance and parking area, as well as several concrete paths around the dwelling and outbuildings. A paved patio and rockery area are located around the ornamental ponds in the south west corner.

Plate 1. Looking south east over the amenity grassland from the north west corner of the site.



Plate 2. Looking north from the southern boundary of the study site.



Plate 3. Looking north towards the outbuildings from the ponds



Plate 4. Looking into the small rear garden area between the dwelling and outbuildings



Plate 5. Looking east along the mixed confers and deciduous trees along the northern boundary.



3.3 Protected and Notable Species

3.3.1 Badgers

The application site and immediate surrounding habitat were accessible was searched for evidence of Badger habitation and foraging using the criteria set out in Section 2.0 of this report.

No main or annex setts, tracks on well-worn paths or any foraging activities were identified within the application site or within the immediate surrounding habitat for approximately 50 metres where accessible.

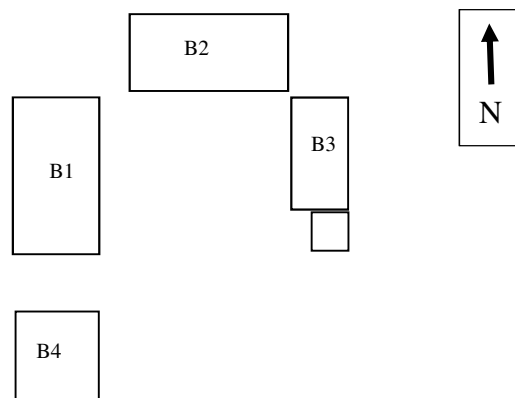
There were no historical records obtained from the third party repository searches for the Badger within the 2km search area.

3.3.2 Bats

There are 10 historical bat records within the 2km search area returned from the third party repository searches, with none of the historical records relating to the application site itself. The nearest confirmed roost is for a maternity roost of 94 Natterer's *Myotis Nattereri* in 2013 approximately 1.5km north east of the study site.

As part of this Preliminary Ecological Appraisal a Preliminary Roost Assessment was undertaken upon all the buildings found within the application site.

Figure 3. Layout of buildings for illustration purposes.



Building 1 – Dwelling.

Plate 6. Shows east elevation of Building 1.



Building 1 is a dormer style cottage built with solid brick walls, and having a pantile roof covering. A single storey flat roofed part brick part glazed porch is attached onto the east elevation of the cottage. Both the south gable and west elevation have a cement render with a pebble dash finish which appeared to be in good condition, whilst the east elevation and north gable are original brick, which have some superficial decay of both the mortar lines and brickwork. There are both timber framed glazed windows and timber framed doors to the east and west elevations, with slight gaps noted around the timber framed doors on the east elevation. Three dormer windows were situated on the west elevation, with the timber fascia and soffit boards being reasonably well fitted, however there were gaps around the lead flashings. The internal walls all appeared to be in good condition. 'A' frame timber roof trusses with timber purlins, rafters and a central ridge board all supported the pantile roof covering, although several pantiles on both roof aspects were seen to be lifted. Three chimney stacks were evenly spaced along the ridge, the lead flashing surrounding the stacks had lifted in sections. The ridge tiles are well bedded and the verges pointed up, with Type 1 Bitumastic roofing felt being present throughout the roof structure.

At this stage Building 1 has been assessed as having Moderate potential for bat habitation, for the following reasons:-

- Lifted Pantiles
- Lifted flashings around chimney stacks.
- Gaps under the lead flashings on the dormer windows.

Plate 7. Shows the timber roof structure with Bitumastic felt lining



Plate 8. Looking at the west elevation with dormer windows.



Building 2 - Kennels

Plate 9. Looking at the south elevation of Building 2.



Building 2 is a single storey solid brick walled dog kennel block with a pantile roof covering. The external brick walls had varying degrees of age related decay, with several deep holes/cracks noted on the south elevation. Timber framed doors were found on the east, south and west elevations, gaps were noted between the timber frames and surrounding brick work on all doors.

Internally the kennels were divided in to four separate rooms with solid brick walls. Timber purlins ran the full length of the building with rafters which supported the pantile roof covering, with numerous pantiles either lifted or slipped. Bitumastic roofing felt was present throughout the roof structure.

Building 2 has been assessed as having Moderate potential for bat habitation for the following reasons:-

- Lifted/Slipped pantiles
- Gaps surrounding timber framed doors
- Holes in wall on south elevation.

Plate10. The interior of one of the rooms in Building 2.



Plate11. Example of holes in the external wall and gaps surrounding door frame



Plate 12. The pantile roof covering on Building 2



Building 3 - Barn

Plate 13. The south gable and west elevation of Building 3



Building 3 is a one and a half storey barn with walls constructed from a mix of chalk and solid brick and having a roof covering of pantiles. A single storey solid brick walled outhouse with a pantile roof covering supported upon a traditional thin timber lathe lining is attached to the south elevation. The external walls had varying degrees of age related decay with several deeper holes noted in the south gable of the one and a half storey building. Three timber framed doors and part glazed windows are located in the west elevation, with gaps noted between the timber frames and surrounding brickwork. The timber framed windows had twin timber lintels internally which had gaps between the pair of lintels. Internally the one and a half storey barn was divided into three separate rooms by chalk block walls, with the internal walls covered in a render which had started to disintegrate in areas. Timber purlins ran the full length of the building with a central ridge board and rafters which supported the pantile roof covering. Gaps were noted in the dividing chalk walls where the purlins ran through. A number of the pantiles had lifted or slipped, however the ridge tiles were well bedded and the verges pointed up. A roofing membrane was present throughout this roof structure.

Building 3 has been assessed as having Moderate potential for bat habitation for the following reasons:-

- Holes in wall on south gable
- Gaps surrounding timber framed doors and windows both internally and externally.
- Lifted/slipped pantiles

Plate 14. Shows timber roof structure in building 3



Plate 15. Shows pantile roof covering on the eastern elevation of Building 3



Plate 16. The interior of the attached small outbuilding.



Building 4.

Plate 17. Shows east elevation of Building 4.



Building 4 is a single storey solid brick walled outbuilding, with a corrugated tin sheet roof covering. The east elevation is completely open and supported with timber posts. The external brick walls on the north, south and west elevations all appear to be in reasonable condition. There is a timber framed hatch built into the north gable wall with no holes or gaps noted. Internally the walls are in good condition. The roof structure is comprised of King Post Trusses with timber purlins, which supported the corrugated tin roof covering, there was lining present within the roof structure.

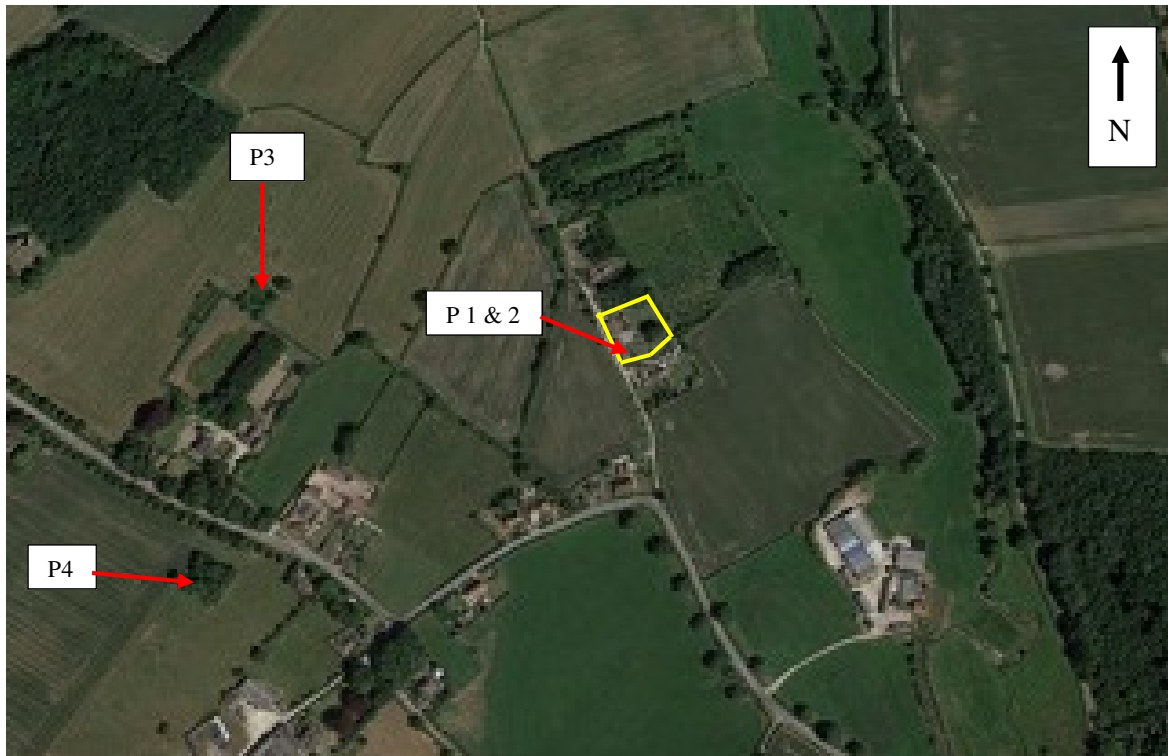
From the observations made Building 4 has been assessed as having Negligible potential for bat habitation.

3.3.3 Great Crested Newt

There were no historical records returned from the third party repository searches relating to Great crested newts within the 2km search area.

During the desk top study 4 ponds were identified from both Arial photography and Ordnance survey maps, within 500m of the application site and are illustrated within Figure 4 below.

Figure 4. Arial view with the ponds locations indicated and the application site outlined in yellow.



Access to Pond 3 & 4 could not be obtained to undertake a Habitat Suitability Index score as permission could not be obtained from the landowners.

Habitat Suitability Index scores were undertaken on Ponds 1 and 2 as part of this Preliminary Ecological Appraisal. The tabulated results and pond description are presented below in section 3.3.3.1 of this report

3.3.3.1 Pond description.

Plate 18. Pond 1 Grid reference TA0854 6066



A rectangular raised pond with a 75cm high solid brick wall surround with flag stone caps. There was no submerged or marginal vegetation present as the pond is stocked with a good population of Koi carp *Cyprinus carpi*.

Table 3. Pond 1 - HSI assessment table

Category	Result	Score	Description
Location		1.0	Located in central England
Pond area	28 sq m	0.05	
Pond drying	Never	0.9	Never dries
Water quality	Poor	0.33	
Shading	None	1.0	
Fowl	Absent	1.0	No evidence of waterfowl impact
Fish	Major	0.01	Koi Carp pond
Other ponds	4 ponds	0.7	1.27 ponds per sq km
Terrestrial Habitat	Poor	0.33	Amenity grassland
Macrophytes	None	0.3	
Habitat Suitability Score		0.32	Poor

Plate 19. Pond 2 Grid reference TA0854 6065



This former pond is in the process of been dismantled. There is no Butyl lining with just areas of the under felt material remaining. There was approximately 15cm of water in the bottom with no aquatic vegetation present. The pond is surrounded by a paved area to the north and east and a raised rockery with waterfall to the south and west

Table 4. Pond 1 - HSI assessment table

Category	Result	Score	Description
Location		1.0	Located in central England
Pond area	10 sq m	0.05	
Pond drying	Annually	0.1	Dries every year
Water quality	Poor	0.33	
Shading	None	1.0	
Fowl	Absent	1.0	No evidence of waterfowl impact
Fish	Absent	1.0	None present
Other ponds	4 ponds	0.7	1.27 ponds per sq km
Terrestrial Habitat	Poor	0.33	Bare ground and amenity grassland
Macrophytes	None	0.3	
Habitat Suitability Score		0.40	Poor

3.3.4 Nesting birds

There were 10 historical bird records within the 2km search area, with none attributed to the study site itself.

The following bird species were observed either visually or by sound and were noted either within the site boundaries or just passing through, these consisted of Blackbird *Turdus merula*, Chaffinch *Fringilla coelebs*, Common buzzard *Buteo buteo* (passing over), Great Tit *Parus major*, House Sparrow *Passer domesticus*, Robin *Erithacus rubecula*.

A pair of Great Tits *Parus major* were seen entering and emerging from holes in the south gable of Building 3, presumably nesting and roosting will be taking place in these areas.

Two Swallow *Hirundo rustica* nests were found in the small outbuilding attached to Building 3.

There no was evidence of the site supporting bird species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).

4.0 ASSESSMENT AND RECOMMENDATIONS

4.1 Designated sites.

The application site is not located within any Statutory or Non-statutory sites of nature

There are no International Designated sites found within the 2km search area.

There is one Nationally Designated Site found within the 2km search area, the River Hull Headwaters, a Site of Special Scientific Interest, Unit 37 is found approximately 0.27km east of the study site.

Unit 37 Kelk Beck and Foston Beck is assessed as being Unfavourable – Recovering with a condition of threat risk as High. Given the close proximity of this unit to the study site, the local authority may ask for an Appropriate Assessment to be undertaken, with regard to the construction phase of the proposed development.

There are nine Local Wildlife sites within the search area, the nearest of which is Church Wood a Deleted Local Wildlife Site found approximately 0.52km west of the study site.

Given the nature of the development proposal and its location, it is not anticipated that any negative impacts would be likely to occur upon any of the Non – statutory sites found within the 2km search radius, as illustrated in Section 3.1.1 and Appendix 3 of this report.

4.2 Habitats

The application site is dominated by Amenity grassland, the dwelling and range of small buildings. Two ornamental fish ponds, along with several mature/semi mature deciduous and coniferous trees are found within the study site, as well as a small shrub border. The boundaries are defined by a mix of fencing types and a short length of species poor hedgerow.

There was no evidence notable/protected plant species, or any non-native invasive species listed as Schedule 9 plant species within the application site.

In its present condition the application site as a whole has been assessed as having Low Ecological Value.

4.3 Protected and Notable Species.

4.3.1 Badgers

There was no evidence of Badger habitation or foraging activity within the application site or within the immediate surrounding 50 metres. There were no historical records for the species within the 2km search area. Therefore it can be concluded that the likelihood of the species inhabiting the application site would be considered to be extremely low.

Recommendations: No further survey work or mitigation is required

4.3.2 Bats

There are 10 historical bat records within the 2km search area returned from the third party repository searches, with none of the historical records relating to the application site itself. The nearest confirmed roost is for a maternity roost of 94 Natter's *Myotis Nattereri* in 2013 approximately 1.5km north east of the study site.

Although there was no historical evidence of bat habitation within any of the study buildings during the daytime buildings assessment, there were a number of features noted within the roof structures, walls and windows/doors to varying degrees which could provide potential roosting opportunities, especially for crevice dwelling bats species. Therefore, from the observations made, the study buildings have been assessed as follows:-

- Building 1 - Moderate Potential
- Building 2 - Moderate Potential
- Building 3 - Moderate Potential
- Building 4 - Negligible Potential

Recommendations:

Any potential negative impacts on bat species, which could result from the proposed development could not be fully assessed from the findings of the Preliminary Roost Assessment alone. Therefore to make a full assessment and to determine the level of mitigation which may be required, along with any possible requirements for a European Protected Species Mitigation Licence, further nocturnal surveys in the form of a dusk /emergence and a dawn /re-entry surveys should be undertaken on Buildings 1, 2 & 3 during the bat activity survey season May – mid September 2020. With these surveys being undertaken following the guidelines as set out within the Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition 2016.

4.3.3 Great crested newts

There are no historical record returned from the third party repository searches relating to Great crested newts within the 2km search area.

During the desk top study four water body were identified within 500 metres of the application site, with two of these being located within the application site itself.

A Habitat Suitability Index score was undertaken on Ponds 1 & 2 with the results obtained along with the associated distances of the ponds from the study site being presented in Table 5 below:-

Table 5.

Pond number	HSI score	Pond suitability	Approximated Distance from site
Pond 1	0.32	Poor	On site
Pond 2	0.40	Poor	On site
Pond 3	N/A	N/A	340m west
Pond 4	N/A	N/A	420m west

The above HSI score would indicate that it would be highly unlikely that Great crested newts would be present within Ponds 1 & 2 as assessed by the criteria set out within section 2.3.3 of this report. (Oldham *et al* 2000).

Habitat Suitability Index scores were not undertaken on ponds 3 & 4 as permission had not been obtained by the client to access these two ponds. Although ponds 3 & 4 were not accessed, an assessment of these ponds has been made from Arial photography and local knowledge which is discussed below:-

Pond 3 is located approximately 340m to the west of the application site. The pond is fence off with tall ruderal and scrub surrounding it. The immediate surrounding habitat is intensively farm arable and grassland. There is no direct connectivity between the pond and the application site.

Pond 4 is located approximately 420m to the southwest of the application site. This pond stands within a grazed grass field and appears to be completely overgrown and shaded by mature deciduous trees. Between this pond and the application site the habitat is predominantly intensively farmed arable and grassland. There is also no direct connectivity between the pond and the application site.

In addition to the above assessments, if in the absence of Great crested newt surveys, an assessment of potential effects of the proposed development upon a possible Great crested newt population can be undertaken using tools, procedures and standing advice from Natural England. The Rapid Risk Assessment is Natural England's main tool for calculating the risk of an offence under European Protected Species legislation. It uses the size of the development site and the distances between the development site and the pond to calculate the probability of an offence being committed. Other factors to be taken into account to make a judgement, are the habitats present within the development site and the connectivity between the development site and the waterbody.

To clarify the position regarding Ponds 3 & 4 as discussed above, it was considered appropriate to run the Rapid Risk Assessment Tool found within the Great Crested Newt Mitigation Licence application, the results of which are illustrated in Table 6 below:-

Table 6.

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.005
Individual great crested newts	No effect	0
	Maximum:	0.005
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

The results above within the Rapid Risk Assessment Tool would indicate that the likelihood of an offence being committed would be Highly Unlikely with regard to Ponds 3 & 4. Guidance from Natural England also indicates that Great crested newts are less likely to disperse over distances of more than 250m from a breeding pond, if the habitat around that pond is suitable for their requirements.

Therefore from all the information gathered to date, it is reasonable to conclude that the likelihood of Great crested newts being present within the application site would be highly unlikely.

Recommendations: - No further survey or mitigation work required.

4.3.4 Nesting birds

There are 10 historical bird records within the 2km search area, obtained from the NEYEDC, none of which related to the study site itself.

During the site survey six bird species were seen either within or passing over the application site and the immediate surrounding area, although no birds were seen foraging within the application site during the field survey.

There was no historical evidence of the study buildings being inhabited by Barn owl *Tyto alba*

Two historical Swallow *Hirundo rustica* nests were found attached to the rafters in the Building 3. A pair of Great Tits *Parus major* were seen entering and emerging from the south gable of Building 3, presumably nesting and roosting will be taking place in these areas. The demolition of Building 3 will result in the destruction/loss of the existing nesting sites, therefore to address these findings and to enable both the Continued Ecological Functionality and to maintain the Favourable Conservation Status of the bird species concerned the following Mitigation Strategy has been proposed.

Mitigation Strategy for Nesting Birds

1. No further Breeding bird survey work is required.
2. If demolition work is to be undertaken during the nesting bird season 1st March - 31st August, then all the buildings will require checking by a suitably qualified ecologist prior to work commencing, due to the previous evidence of nesting birds within Building 3. If any active nesting birds are found then the work must stop within the immediate nest location until the young have fledged or the nest is naturally abandoned.
3. In addition to item 2 above. If the initial vegetation/ground clearance works are to be undertaken during the bird nesting period 1st March – 31st August inclusive, then the site will require an initial walk over and where deemed necessary a fingertip search by a suitably qualified ecologist prior to any clearance works being undertaken. If any active nests are identified then they will be marked by a small red flag, with a 10m buffer zone and will remain untouched until the nest has been naturally abandoned or the young have fledged.
4. Prior to the commencement of any demolition or land clearance works the following nest boxes will be installed in suitable locations within the application site and remain in -situ thereafter.
 - 2 x Eco Swallow Nest Bowls or woodcrete equivalents.
 - 2 x Vivara Pro Seville 32mm WoodStone Nest Box

All the nest boxes can be obtained from NHBS at www.nhbs.com or any equivalent suitable habitat enhancement supplier.

5.0 LEGISLATION

5.1 Badgers

Badgers are protected under the Protection of Badger Act (1992) which makes it an offence to:

- Kill or injure a Badger
- Damage or destroy a sett
- Disturb a Badger whilst it occupies a setts

5.2 Bats

All species of UK bats are statutorily protected under regulation 41 of The Conservation of Habitats and Species Regulations 2010 (formerly The Conservation (Natural Habitats, Etc.) Regulations 1994 (as amended), which implements the requirements of the EC Habitats Directive, plus under UK legislation through Schedule 5 (Section 9) of the Wildlife and Countryside Act 1981. This combined legislation makes it an offence to: -

- Deliberately kill, injure or capture bats
- Deliberately disturb bats in such a way as to significantly effect:
 - a) the ability of that species to survive, breed, rear or nurture their young
 - b) the local distribution on the species
- Intentionally or recklessly disturb or obstruct access to the resting place of bats
- Damage or destroy breeding sites and resting places of bats even if bats are not occupying the roost at the time.
- Possess, transport, sell, barter or exchange any part of, or derived from a bat whether dead or alive.

5.3 Great Crested Newts

The Great Crested Newt is statutorily protected under regulation 41 of The Conservation of Habitats and Species Regulations 2010 (formerly The Conservation (Natural Habitats, Etc.) Regulations 1994 (as amended), which implements the requirements of the EC Habitats Directive, plus under UK legislation through Schedule 5 (Section 9) of the Wildlife and Countryside Act 1981. This combined legislation makes it an offence to: -

- deliberately kill, injure or capture a great crested newt
- deliberately disturb a great crested newt in such a way as to significantly effect:
 - the ability of that species to survive, breed, rear or nurture their young
 - recklessly disturb or obstruct access to the resting place of a great crested newt
 - damage or destroy breeding sites and resting places of great crested newts
 - deliberately take or destroy eggs of the great crested newt
- possess, transport, sell, barter or exchange any part of a great crested newt whether dead or alive.

The Great crested newt (*Triturus cristatus*) is listed as a priority species on the UK Biodiversity Action Plan (BAP) and in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

5.4 Nesting birds

All wild birds are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), it is an offence to:-

- Deliberately kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird whilst in use or being built
- Take or destroy an egg or eggs of any such wild bird.

Certain bird species which includes the Barn owl *Tyto alba* are listed under Schedule 1 of the Wildlife and Countryside Act receive special additional protection and as such it is an offence to intentionally or recklessly disturb them when nesting or rearing young.

A number of bird species are also listed under The Natural Environment and Rural Communities (NERC) Act 2006

5.5 Plant species

Certain plant species in the UK are protected under the following legislation:

- Wildlife and Countryside Act 1981 (as amended) under Section 8
- Conservation of Habitats and Species Regulations 2010 and are listed under Schedule 4

Both pieces of legislation make it an offence to.

- Intentionally pick, uproot or destroy certain plants
- Possess, sell or exchange them.

Certain plant species UK Biodiversity Action Plan Priority Species and are listed under The Natural Environment and Rural Communities (NERC) Act 2006.

In addition to the above legislation there are injurious weeds and invasive species which are subject to the following legislation:

The Weed Act 1959 covers injurious weeds

The five species listed under this legislation are; Common Ragwort (*Senecio jacobea*), Creeping or field thistle (*Cirsium arvense*), Spear thistle (*Cirsium vulgare*), Broad-leaved dock (*Rumex obtusifolius*) and Curled dock (*Rumex crispus*).

It is not an offence to have these plant species on your land but it is an offence to allow them to spread to agricultural land.

Invasive species are under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) The following are possibly the most common invasive species encountered:

- Japanese knotweed (*Fallopia japonica*), Giant hogweed (*Heracleum mantegazzianum*), Himalayan balsam (*Impatiens glandulifera*), Rhododendron spp, New Zealand Pigmyweed (*Crassula helmsii*),

It is not an offence to have these plants growing on your land, but it is an offence to allow them to spread into the wild.

6.0 PLANNING POLICY

6.1 The National Planning Policy Framework (2019) states:

174 .To protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation and
- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity

175. When determining planning applications, local authorities should aim to conserve and enhance biodiversity by applying the following principles:

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or as a last resort, compensated for, then planning permission should be refused.
- Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments, should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of specific scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest.
- Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can be secured measurable net gains for biodiversity.

176. The following should be given the same protection as habitat sites:

- Potential Special Protection Areas and possible Special Sites of Conservation;
- listed or proposed Ramsar sites; and

- Sites identified, or required, as compensatory measures for adverse effects on habitat sites, potential Special Protected Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

177. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plan or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

6.2 The Natural Environment and Rural Communities Act (2006) states:

Section 40 (1) Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

Section 41 lists habitats and species of principal importance to the conservation of biodiversity making these habitats and species a material consideration in the planning process

6.3 ODMP Circular 06/2005 Biodiversity and Geological Conservation

- The presence of a protected species is a ‘material consideration’ when a local planning authority is considering a development proposal. (*Paragraph 98 Circular 06/2005*), when a planning authority is considering a development proposal and as such where impacts upon a protected species are likely to occur from a proposed development, surveys must be undertaken and provided to support a planning application.
- Paragraph 99 Circular 06/2005 states; *‘It is essential that the presence or otherwise of protected species and the extent that they may be affected by the proposed development, is established before making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted’.*
- Where there is a reasonable likelihood of protected species being present and affected by a development the surveys should be completed and any necessary measure put in place, through conditions and / or planning obligations, before the permission is granted.

6.4 UK Biodiversity Action Plan

This action plan is a government initiative and contains a list of priority habitats and species of conservation concern in the UK which are the same as those listed within Section 41 of The Natural Environment and Rural Communities (NERC) Act 2006. The plan also outlines biodiversity initiatives designed to enhance their conservation status.

The UKBAP requires conservation of biodiversity to be addressed at a county level via a Local BAP and are usually targeted towards species of conservation concern within each separate area.

7.0 REFERENCES AND BIBLIOGRAPHY

Collins, J. (Ed) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London

Countryside and Rights of Way Act 2000 – HMSO

Conservation (Natural Habitats etc.) Regulations 1994 as amended 2010

East Yorkshire Bat Group

English Nature (2001). *Great Crested Newt Mitigation Guidelines*. English Nature. Peterborough.

Gent.A. & Gibson. S., (1998). *Herpetofauna Worker's Manual*. Joint Nature Conservation Committee. Peterborough.

Google Earth 2019

JNCC (2010). *Handbook for Phase 1 Habitat Surveys*. Joint Nature Conservation Committee

Michell-Jones, A.J. and McLeish A.P. (Eds). (2004). *Bat Worker's Manual (3rd Edition)*. Joint Nature Conservation Committee, Peterborough, UK

Michell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough, UK

National Planning Policy Framework (March 2012) Department of Communities and Local Government

North & East Yorkshire Ecological Data Centre

UK Post -2010 Biodiversity Framework (2012) <http://www.jncc.defra.gov.uk./page6189> accessed October 2001

Wildlife and Countryside Act 1981 –HMS

8.0 APPENDICES

Appendix 1 Species List

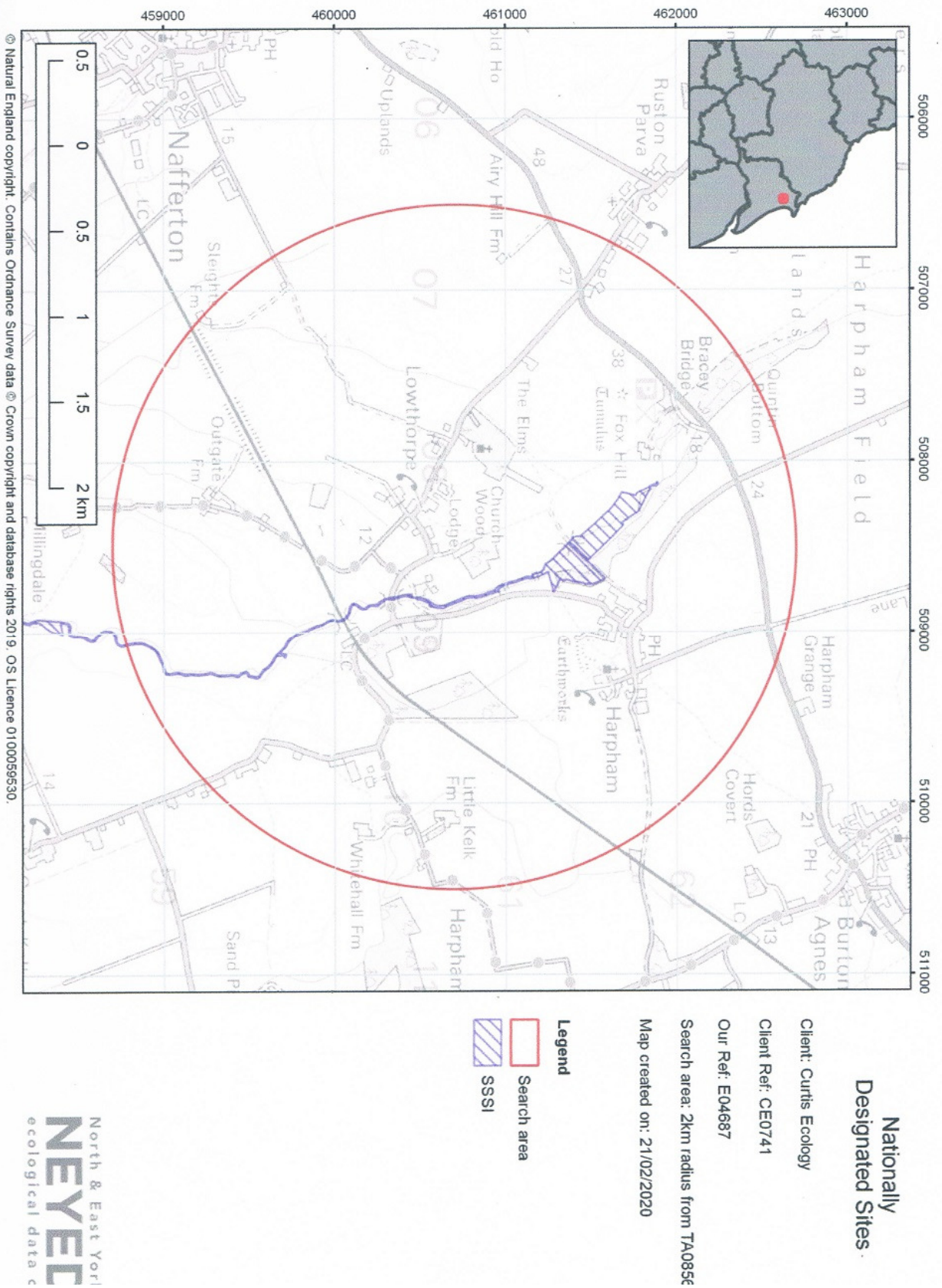
Plants.

Annual meadow grass *Poa annua*
Beech *Fagus sp*
Blue spruce *Picea pungens*,
Broad-leaved dock *Rumex obtusifolius*,
Common chickweed *Stellaria media*
Common nettle *Urtica dioica*
Creeping buttercup *Ranunculus repens*,
Creeping thistle *Cirsium arvense*
Daisy *Bellis perennis*,
Dandelion *Taraxacum officinale*,
Domestic apple *Malus domestica*
Hawthorn *Crataegus monogyna*
Hazel *Corylus avellana*,
Lilac *Syringa sp*
Lords & ladies *Arum maculatum*
Primula sp
Ryegrass *Lolium sp*
Scots pine *Pinus sylvestris*
Snowdrop *Galanthus nivalis*
Spear thistle *Cirsium vulgare*
Sycamore *Acer pseudoplatanus*
White clover *Trifolium repens*
Witch hazel *Hamamelis sp*
Winter Pansy *Viola sp*
Yorkshire fog *Holcus lanatus*

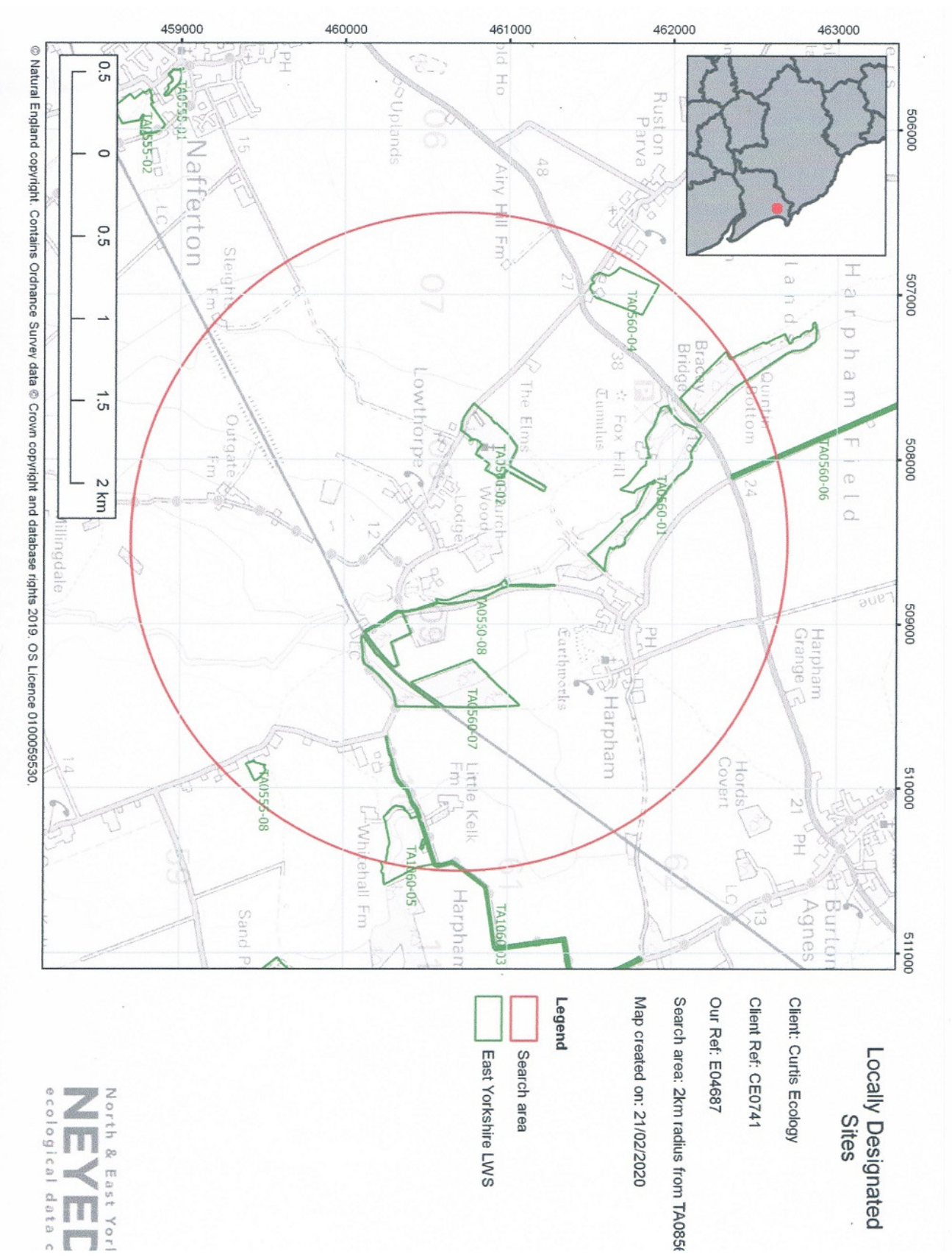
Birds.

Blackbird *Turdus merula*
Common buzzard *Buteo buteo*
Chaffinch *Fringilla coelebs*
Great Tit *Parus major*
House Sparrow *Passer domesticus*,
Robin *Erithacus rubecula*,

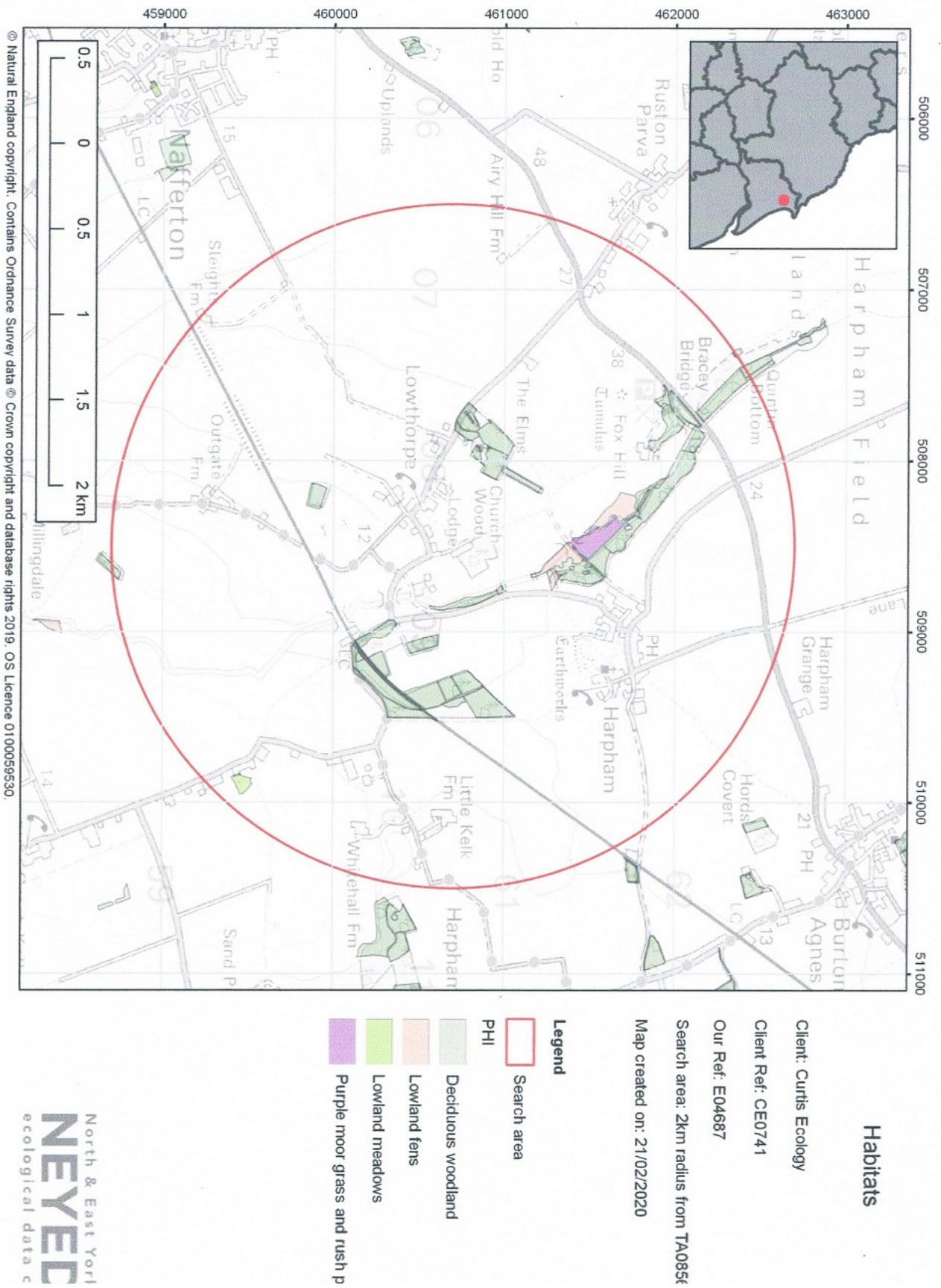
Appendix 2. Nationally Designated Sites 2km search area.



Appendix 3. Locally Designated Sites found within the 2km search area.



Appendix 4. Priority Habitats found with 2km search area.



Appendix 5. Phase 1 Habitats Map

