

Wheal Grey 
Ecology Ltd

**PRELIMINARY ECOLOGICAL APPRAISAL
(PEA)**

of

**LAND AT NANCEMEER FARM, MITCHELL,
CORNWALL**

April 2021



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**PRELIMINARY ECOLOGICAL APPRAISAL OF LAND
AT NANCEMEER FARM, MITCHELL,
CORNWALL**

OS Grid Ref: SW 8652 5493

Survey date: 1st April 2021

Surveyor: Matthew Thurlow BSc (Hons) MSc ACIEEM

Time spent on site: ¾ hour

Report Author: Matthew Thurlow BSc (Hons) MSc ACIEEM

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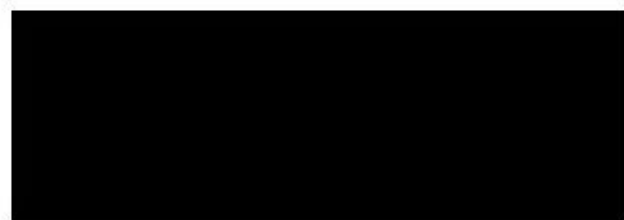
Report for: Winfield Holdings S.W LTD

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Date:

16th April 2021

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1. SUMMARY

Wheal Grey Ecology were instructed by Ms Jo Tonkins of NHB Architectural services, on behalf of the client Winfield Holdings SW Ltd, to carry out a Preliminary Ecological Appraisal (PEA) of land at Nancemeer Farm, Mitchell, Cornwall. This PEA is intended to provide ecological recommendations in response to plans to develop the site to provide several commercial units and their associated infrastructure on the site. A walkover of the site was undertaken on 1st April 2021 at 10.30am by Matthew Thurlow. The weather was sunny with a gentle breeze and 0% cloud cover and the temperature was 13°C.

This site comprises a roughly triangular field used for arable crop production, covering approximately 0.85 hectares, bounded by Cornish hedgebanks and hedges in a rural location to the north east of Mitchell and just to the north of the A30 in Mid Cornwall.

Methods- A walkover field survey along with a desktop study survey, including a biological record search, was undertaken. The habitats present onsite were classified and mapped using the standard Phase 1 Habitat survey methodology (JNCC, 2003).

Proximity to designated areas- There are no statutory sites within 1km of the site and no non-statutory sites in close proximity to the survey area likely to be impacted by the works.

Important habitat features of the study area- Cornish hedgebanks 1 and 2 forming the north east and western boundaries of the site would qualify as a UK Biodiversity Action Plan Priority Habitat (UK BAP, 2007) and Local Biodiversity Action Plan (BAP) Priority Habitat (Cornwall Biodiversity Initiative, 2009).

Conclusions

Impacts- The proposed scheme will sit entirely within the existing boundaries of the site and is unlikely to adversely impact any surrounding landscape or habitats providing sensitive lighting is used. A section of the eastern hedgebank and south east hedge will unavoidably need be removed to create new access to the two southern plots. The proposed scrub or woody planting along the edges and between each of the new plots would help restore and compensate for this loss and potentially enhance and increase the sites biodiversity value.

The poor semi-improved grassland within the site will be lost as a result of the development. However, the use of a native species rich seed mixes, or turf, to create any new grassed areas and the proposed living roof would help compensate for this loss.

If the enhancement measures recommended are adopted (e.g., with regards to lighting, re-using soils and enhancing the remaining hedges and hedgebanks) there should be no adverse impacts on protected species. No significant evidence of the use of the site by protected species was found during this survey.

Summary of further survey work- As there is limited potential for this site to be used by protected species, no further survey work is required to help inform any mitigation or ecological constraints. However, as sections of Cornish hedgebank and hedge and large areas of grassland will be impacted by the works an ecological watching brief for nesting birds and reptiles is recommended.

Key recommendations for maintaining and enhancing the biodiversity value of the site:

- Protecting the existing Cornish hedgebanks (both the hedgebank and vegetation topping it) and hedges where possible onsite and enhancing, where appropriate, with native planting upon completion,
- Create new plot boundaries with existing soil taken from the site and native hedgerow planting to maintain existing plant assemblages and create additional artificial light screening, nesting and foraging habitat
- Limit external lighting to only where it is required, it should only be used where it is absolutely necessary and should involve the use of sensitive lighting systems; this should involve warm white coloured bulbs, preferably lower than 0.5 Lux especially within 3 metres of the boundaries, be downward pointing and triggered on short timers to help minimise the amount of artificial light added into the site and light spill into the surrounding area.

2. INTRODUCTION

2.1. Background

Wheal Grey Ecology were instructed by Ms Jo Tonkins of NHB Architectural services, on behalf of the client Winfield Holdings SW Ltd, to carry out a Preliminary Ecological Appraisal (PEA) of land at Nancemeer Farm, Mitchell, Cornwall. This PEA is intended to provide ecological recommendations in response to plans to develop the site for several commercial units and their associated infrastructure on the site. The current plans labelled '3957 04' provided by NHB on behalf of their client are available in Appendix 4. A walkover of the site was undertaken on 1st April 2021 at 10.30am by Matthew Thurlow. The weather was sunny with a gentle breeze and 0% cloud cover and the temperature was 13°C.

This site comprises a roughly triangular field used for arable crop production, covering approximately 0.85 hectares, bounded by Cornish hedgebanks and hedges in a rural location to the north east of Mitchell and just to the north of the A30 in Mid Cornwall. Agricultural fields laid for crop production and the grazing of livestock are present to the north west and east with a farm machinery depot adjacent to the south western boundary.

The "survey area" is outlined in pink on Map 1 and consists of the area within the red line of the planning application as provided by the client and the land in the immediate vicinity of the planning application boundary, where access allowed, which may also be impacted by the works.

2.2. Purpose of Preliminary Ecological Appraisal

The purpose of this initial PEA is to:

- describe the habitats within the site using nationally recognised classification methods,
- assess the conservation value of the habitats on site to avoid significant ecological impact,
- identify signs of the use of the site or the potential for the site to support protected species,
- highlight any species or areas of concern that may need further survey work at suitable times of the year,
- highlight any ecological constraints present that may require mitigation,
- and make further recommendations for the potential to enhance the site for biodiversity.

3. METHODS

The survey comprised a desktop study and field survey.

3.1. Desktop study

A desktop-based study consisted of reviewing the following local and online resources:

- A biological records search of statutory and non-statutory nature conservation sites and species of conservation concern or interest obtained from the Environmental Records Centre for Cornwall and the Isles of Scilly. The search radius extended for 1000 metres from the middle of the site and was conducted on the 1st April 2021.

- The DEFRA based Magic Maps facility was also consulted for site designations and surrounding habitats, this can be found at the following web address: <https://magic.defra.gov.uk/>
- No other published ecological reports have been referenced for this report.

3.2. Field methods

The field survey was conducted in line with national survey methods, with the habitats classified and mapped using the standard Phase 1 Habitat survey methodology (JNCC, 2003). These were subsequently converted into UK Habitat Classification designations after the Phase 1 Habitat survey shown below in brackets.

The site was also searched for signs of use by protected species and habitats of nature conservation importance, and features were assessed for their potential to support protected species. A list of vascular plants found during the survey is included in Appendix 1 which were identified according to Rose, 2007. This is not intended to be a comprehensive plant list, it's aim is to support the habitat classifications. However, if the site is either known to, or is believed to have the potential to support rare, protected or invasive plant species these were also searched for.

3.3. Assessment

The habitats and species located during the walk-over survey have been assessed for their nature conservation and biodiversity significance according to current standard criteria (listed in Appendix 3); the criteria consist of international, national and local designations and include statutory legislation and non-statutory designations.

3.4. Caveats and limitations to survey work

Due to the time of year the survey was undertaken some plant species may not have been visible or could have been overlooked, the hedges and Cornish hedgebanks have also been recently managed which may further increase the chance of some species not being visible at the time of survey.

3.5. Summary of surveyor's experience

Matthew Thurlow is a trained field surveyor with over two years' experience conducting Extended Phase 1 Habitat surveys, Preliminary Ecological Appraisals, and a variety of protected and non-protected phase two species surveys. He holds a Bachelor's Degree in Applied Marine Science and Masters in Conservation Biodiversity and undertook 6 months of field surveyor training in 2017 prior to starting work as a professional ecologist.


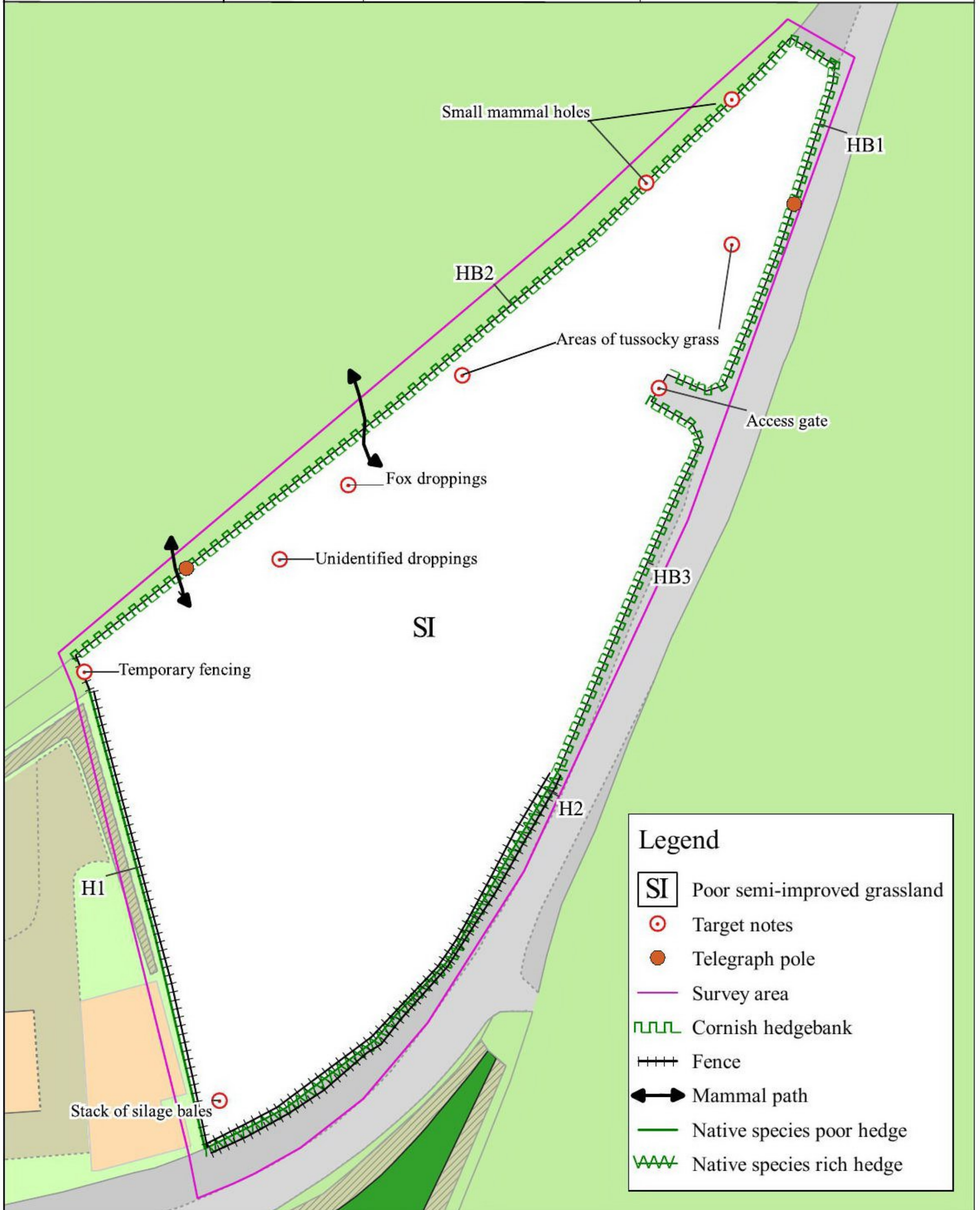


Date of survey:
1st April 2021

Drawn by:
MT

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2021 Ordnance Survey (0100031673)

Scale: 0 10 20 30 m

Legend

- SI Poor semi-improved grassland
- ⊙ Target notes
- Telegraph pole
- Survey area
- ⌚ Cornish hedgebank
- ⋈ Fence
- ↔ Mammal path
- Native species poor hedge
- ⌚ Native species rich hedge

4. SURVEY RESULTS

4.1. Overview

The site is located to the north east of the village of Mitchell, on the north side of the A30, and to the east of the A3076. The site is roughly triangular and consists of poor semi-improved grassland with a south westerly aspect, Cornish hedgebanks forming the north west and part of the eastern boundaries and hedges lined with fencing forming the remaining boundaries, see Map 1. The site is currently accessed through an existing gate in the hedgebank in the northern part of the field and a country lane curves around the south east and eastern boundary. There is an additional thin strip of woodland between the country lane and the A30 directly to the south of the site outside of the survey area.

The historical condition of the site, by looking at historical imagery, indicates that the field was originally part of a larger field that was split in half sometime between 2009 and 2017 to build the farm machinery depot to the west. The remaining field has consistently been used for crop production and the grazing of animals and has undergone little change, other than the reduction in size, over the last 20 years.

4.2. Description of habitats

A list of the plant species recorded in each habitat can be found in Appendix 1.

4.2.1. Poor Semi-improved grassland (Grassland - Modified grassland)

The field consists of poor semi-improved grassland which has a south westerly aspect and consists of Yorkshire-fog *Holcus lanatus*, Perennial Rye-grass *Lolium perenne* and a Bent sp. *Agrostis sp.*, see Photos 1 and 2. There are areas of tussocky grassland within the field, particularly to the north and south of the access gate and along the north west boundary which are dominated by stands of Cock's-foot *Dactylis glomerata*, see Photos 1 and 2. This field appears to be tracked over with vehicles regularly leaving the ground fairly disturbed and rutted, see Photos 2 and 3. The southern corner of the field is used for the storage of silage bales, see Photo 3.



Photo 1. Showing tussocky areas within the poor semi-improved grassland in the northern part of the field



Photo 2. Showing the southern part of the poor semi-improved grassland



Photo 3. Showing silage bales stored in the southern corner of the field

4.2.2. Cornish hedgebanks (Native hedgerow with trees - Associated with bank or ditch)

There are three stone-faced Cornish hedgebanks within the survey area, labelled HB1, HB2 and HB3, all of which have been recently and heavily managed; indicated by flatted tops and trimmed sides. These hedgebanks have been consistently heavily managed on a regular basis looking at historical imagery.

HB1 forms the north eastern boundary of the site with the country lane adjacent and to the east of it. The hedgebank is approximately 1.8m high on average from within the field, with the understorey vegetation consisting of Bramble *Rubus fruticosus* agg. and Common Ivy *Hedera Helix* with areas where a Bluebell sp. *Hyacinthoides* sp. and Hedge Bedstraw *Galium mollugo* are locally abundant. The hedgebank is topped with less than 1 metre of consistent woody vegetation, this consists of Hawthorn *Crataegus monogyna* and Hazel *Corylus avellana* and locally abundant European Gorse *Ulex europaeus*, see Photos 4 and 5.



Photo 4. Showing HB1 from within the field



Photo 5. Showing HB1 from the country lane

HB2 forms the long north western boundary of the field and is approximately 1.5m high on average from within the field. The understorey of the hedgebank is vegetated with commonly occurring Bramble and occasional areas of Ivy and grasses including a Bent sp. *Agrostis stolonifera* and Perennial Rye-grass *Lolium perenne*. There are also areas of locally abundant Common Nettle *Urtica dioica*, Hedge Bedstraw

and Wood Sage *Teucrium scorodonia*. This hedgebank is topped with continuous, but recently managed, woody vegetation consisting of Blackthorn *Prunus spinosa*, Hazel and Hawthorn and Honeysuckle *Lonicera periclymenum*, see Photos 6 and 7.



Photo 6. Showing the northern end of HB2



Photo 7. Showing the southern end of HB2

HB3 forms the middle section of the eastern boundary between the species rich hedgerow and the access gate, this hedgebank is sparsely vegetated, see Photos 8 and 9. This hedgebank is approximately 1.5m high on average from within the site with the understorey vegetation consisting of commonly occurring Ivy with Foxglove *Digitalis purpurea*, Red Campion *Silene dioica* and several grasses including Creeping Bent and Yorkshire-fog *Poa annua* and a Bluebell sp. *Hyacinthoides sp.* also present. This hedgebank is topped with occasional woody vegetation, which has been recently trimmed including Hawthorn, Hazel and an Oak sp. *Quercus sp.*



Photo 8. Showing the northern end of HB3



Photo 9. Showing the southern end of HB3

4.2.3. Native species rich hedge (Native species rich hedgerow)

The south eastern boundary of the field is formed by a native species rich hedgerow (H2), this hedgerow is lined on both sides by post and rail fencing with a moderate sized wire mesh in between the posts, see Photos 10 and 11. The hedgerow has an understorey dominated by Bramble with occasional areas consisting of Common Nettle and a Bluebell sp.. The hedge is currently approximately 2m high on

average although the southern end is not trimmed, and consists of Hazel, Blackthorn and Hawthorn with occasional stands of Beech *Fagus sylvatica* and European Gorse also present.



Photo 10. Showing the northern end of H2



Photo 11. Showing the untrimmed southern end of H2

4.2.4. Native species poor hedge (Native hedgerow)

A native species poor hedge (H1) forms the entire south western boundary between the field and the farm machinery depot. This hedge is lined with a post and rail fence on the inside edge of the field, see Photo 12. This hedge is approximately 1m high from inside the field and has an understorey of Bramble with abundant Hawthorn with rare stands of Beech and Hazel also being present.



Photo 12. Showing H1

4.2.5. Mixed fencing (Urban – Built linear feature)

The south eastern and south western hedgerows are lined by post and rail fences with medium sized metal mesh between the posts. In the western corner of the field there is a temporary fence consisting of two sections of crowd fencing, this fences off a thin strip of grass that continues to run along HB2 out of the survey area, see Photo 13.



Photo 13. Temporary crowd fencing in the western corner of the field

4.3. Results of desktop survey

The results of the records search from ERCCIS was analysed and key data relating to the site has been extracted and presented in Tables 1 and 2 below. A summary of the records search provided by ERCCIS can be found in Appendix 5. Additional information has also been gathered from Magic Maps.

4.3.1. Protected species

Table 1. List of protected species and red-listed bird and plant species recorded within a 1km radius of the site as listed by ERCCIS. The number of Roosts/Setts/Holts, the nearest sightings were assessed as being relevant or where accurate locations are provided with the record are included below.

Year range	Species scientific	Species vernacular	No. records	Roosts/Setts/Holts/Nests	Nearest sighting/roost
1988-2013	<i>Hyacinthoides non-scripta</i>	Native Bluebell	12	N/A	400m SW
1996-2019	<i>Loxia curvirostra</i>	Common Crossbill	1	No nests	400m SW
	<i>Tyto alba</i>	Barn Owl	5	1	Carrick
	<i>Milvus</i>	Red Kite	1	No nests	400m SW
	<i>Falco columbarius</i>	Merlin	1	No nests	No precise location
2009-2018	<i>Chiroptera sp.</i>	Unknown bat species	3	1	Roost 450m SW
	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	3	1	Roost 450m SW

	<i>Pipistrellus pygmeus</i>	Soprano Pipistrelle	1	No roosts	Sighting 620m E
	<i>Plecotus auritus</i>	Brown Long-eared	2	1	Roost 450m SW
	<i>Rhinolophus hipposideros</i>	Lesser Horseshoe	1	No roosts	Sighting 700m SW
1960-2001	<i>Lutra lutra</i>	Otter	1	No holts	200m SE Dead on road
1993-2020	<i>Erinaceus europaeus</i>	Hedgehog	5	N/A	440m SW
1998-2002	<i>Lissotriton helveticus</i>	Pal mate Newt	1	N/A	Sighting 900m SW

4.3.2. Statutory and non-statutory site designations

The site itself does not lie within any statutory or non-statutory designated sites, there are also no statutory sites within 1km of the site. There is one non-statutory site within 1km of the site, see Table 2.

Table 2. List of all statutory and non-statutory designated sites within 1km of the survey area as listed by ERCCIS.

Site designation	Site name	Distance from site
Statutory sites		
No Statutory sites present		
Non-statutory sites		
CWS	Benny Mill Valley	700m W

4.3.3. Statutory and non-statutory sites in close proximity to the survey area

There are no statutory or non-statutory sites in close proximity to the survey area. The non-statutory site within 1km is over 500m away and will not be impacted by this proposal.

4.3.4. Priority habitats

There are no priority habitats listed within the survey area according to the records search or Magic Maps. However, there are two BAP priority habitats of Deciduous Woodland within 1km of the site; one 440m to the south east and one 750m to the west of the site. This site is designated as a nitrate vulnerable zone as part of the National Habitats Network Map according to Magic Maps.

5. ASSESSMENT OF THE CONSERVATION VALUE OF THE SITE AND POTENTIAL TO SUPPORT PROTECTED AND OTHER NOTABLE SPECIES

5.1. Rationale

This section assesses the value of the site based on the information obtained during the field survey and desktop study. The assessment is in terms of presence of, or potential to support protected, rare or scarce habitats and species, general biodiversity value and ecological function in the wider landscape.

The criteria that are used in assessing species and habitat importance consist of international, national and local designations; they include statutory legislation and non-statutory designations (as listed in Appendix 3) and the protection level and legislation specific for each animal group (as listed in Appendix 2).

5.2. Landscape context and proximity to designated areas

This site is located in a rural setting to the north east of the village of Mitchell and north of the A30 with agricultural land to the north, east and west. A country lane wraps around the south eastern boundary of the site. The site has some connectivity to the wider landscape via a network of heavily managed and low cut Cornish hedgebanks, there is limited connectivity to the south of the site due to the major A30 trunk road.

There are no statutory or non-statutory sites in close proximity to the survey area and the non-statutory site to the west will not be impacted by this proposal.

5.3. Important habitat features of the study area and habitats likely to be impacted

Cornish hedgebanks 1 and 2 forming the north east and north west boundaries of the site would qualify as a UK Biodiversity Action Plan Priority Habitat (UK BAP, 2007) and Local Biodiversity Action Plan (BAP) Priority Habitat (Cornwall Biodiversity Initiative, 2009). These are currently in a moderate to poor condition due to the level of management they are under.

Currently the poor semi-improved grassland is of moderate to low ecological value to wildlife with a moderate diversity of species present within the grassland and is likely to be subject to increased nitrate levels due to its previous uses and regular reseeding. This habitat is likely to be completely lost under the footprints of the new buildings and carparks.

HB3 is currently of limited value to wildlife due to it being sparsely vegetated and the current heavy management. A section of this hedgebank will be removed to create access into the central plot.

H2 is of moderate value to wildlife due to its heavy management and the wire mesh restricting access through it. A section of this hedge is to be removed to create access to the southern plot.

The strip of woodland to the south of the site outside of the survey area on the other side of the country lane could become impacted by becoming illuminated by light spill from the site if proper screening is not created or insensitive lighting is used on the exterior of the buildings or parking areas, see Photo 14.

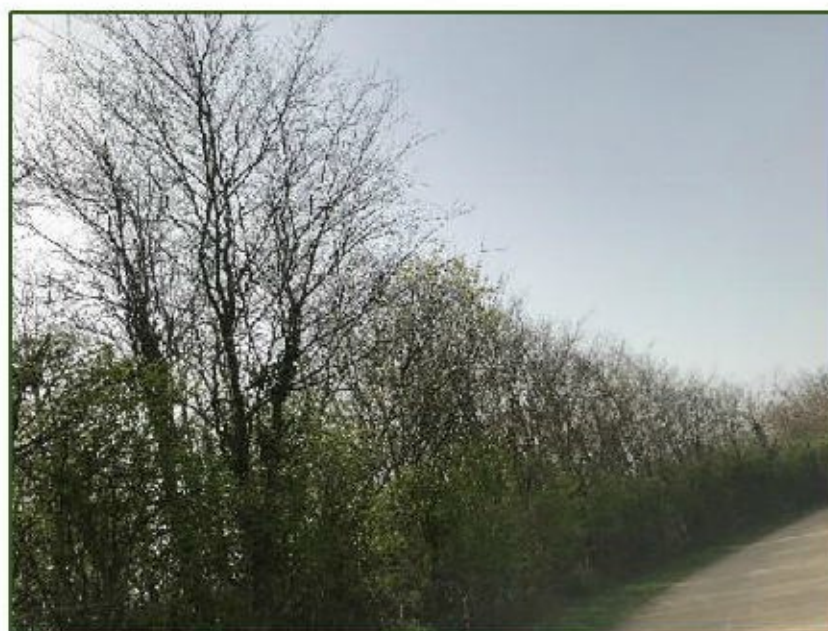


Photo 14. Adjacent thin strip of woodland

5.4. Nightscape and artificial lighting

Due to the rural location of the site, it is likely to be free of urban light spill from nearby towns or villages. However, lighting from the adjacent Farm machinery depot and A30 may impact the site considering how low cut the species poor hedge is.

5.5. Potential for the site to support rare and protected flora and fauna

5.5.1. Plants

A Bluebell species was noted within the survey area. Native Bluebells *Hyacinthoides non-scripta* are protected under the Wildlife and Countryside Act (1981). This states that digging up the plant or bulb in the countryside is prohibited and landowners are prohibited from removing Bluebells from their land to sell. The species was also listed on Schedule 8 of the Act in 1998, which makes trading in wild Bluebell bulbs and seeds an offence. Currently a section of HB3 and H2, in which a Bluebell sp. was noted, are being impacted by the works.

Due to the time year the survey was undertaken some species may not have been evident and could have been overlooked.

See recommendations in section 6.

5.5.2. Invasive and introduced non-native species

No invasive non-native species were observed during the survey.

Invasive species do not need to be considered any further.

5.5.3. Bats

The managed Cornish hedgebanks and hedges forming the boundaries of the site are currently of limited value to bats for foraging with no overhanging branches or sheltered areas for insects, although they may still be used to navigate around the site. The poor semi-improved grassland is of limited value to bats for occasional foraging.

There are three bat roosts within 1km of the site including a Brown Long-eared, Common Pipistrelle and a Pipistrelle sp. roost, all of which appear to be in the same location in Mitchel approximately 450m to the south west of the site on the other side of the A30 trunk road. There are only 10 records of bats, including the roosts, within 1km of the site.

No trees or buildings suitable to support roosting bats were observed within the survey area.

See recommendations in section 6.

5.5.4. Common/Hazel Dormouse

There is very limited potential for Common Dormouse to make use of the boundary hedges and hedgebanks. The hedgebanks do contain a range of suitable food sources including Hazel, Honeysuckle, Blackthorn, Hawthorne and Bramble for fruit and nuts. However, there are no records of Common/Hazel Dormice within 1km of the site and the hedgebanks are heavily managed and appear to have been this way for many years. The eastern boundary lacks continuous vegetation in places along HB3 in addition to the existing access gateway so the additional gaps to be created are not interrupting continuous cover which Dormice could be using. The open field has negligible potential to support Dormice as it is open and exposed.

Dormice do not need to be considered any further.

5.5.5. Nesting birds

The site provides some potential for nesting birds within the vegetated Cornish hedgebanks, the species rich and species poor hedges. It is likely that more common birds will use these habitats for nesting during the nesting season (March to August inclusive).

See recommendations in section 6.

Badger do not need to be considered further.

5.5.7. Otter

There is no significant potential for Otter to make use of the site with the nearest watercourses being isolated from the site by the A30 trunk road, there is also no significant cover onsite.

There is one record of Otter which is to the south of the A30.

Otter do not need to be considered further.

5.5.8. Reptiles

There is potential within the south west facing tussocky areas of grassland and the south east facing HB2 and HB3 and the grassland interfaces to support small numbers of the more widely spread UK reptile species such as Slow Worm and Common Lizard. However, the ground does appear to be regularly disturbed by tractor activity with divots and tyre tracks present throughout the site and there are no records of any reptiles within 1km of the site.

See recommendations in Section 6.

5.5.9. Amphibians

The site and surrounding area has limited potential to support amphibians with no nearby watercourses or any indication of any sources of moisture present within the site and there is only one record of a Palmate Newt within 1km of the site.

There is currently no requirement to undertake targeted surveys for this species.

5.5.10. Hedgehog

There is limited potential for the site to be used by Hedgehogs for foraging and to traverse the site considering the limited vegetation around the boundaries. There are 5 records for Hedgehog within 1km of the site, the nearest record is approximately 440m to the south west and all the records are to the south of the A30 trunk road. Hedgehogs do not currently hold any legal protection; however, they are a BAP priority species.

There is currently no requirement to undertake targeted surveys for this species.

6. RECOMMENDATIONS FOR FURTHER SURVEYS, ECOLOGICAL CONSTRAINTS, MITIGATION AND BIODIVERSITY ENHANCEMENT

6.1. Landscape and designated areas

The proposed scheme will sit entirely within the existing boundaries of the site and is unlikely to adversely impact any surrounding landscape or habitats providing sensitive lighting is used. There are no statutory or non-statutory designated areas in close proximity to the site which are likely to be impacted by the proposal; the nearest designated site is 700m to the west and separated by numerous fields, field boundaries and the adjacent depot.

The development of the field is likely to increase the fragmentation of the landscape and reduce the movement around and through the site by mobile local wildlife due the creation of gaps in the hedgebanks, removal of the grassland and introduction of artificial light. However, there did not appear to be a great deal of activity within the site and there are a low number of records of mobile animal species in the records search of the surrounding area. Any fragmentation that occurs could be minimised by using the following guidance: ensuring any boundaries introduced around the site contain small gaps underneath, within them or at the ends, to ensure that hedges or grass areas remain permeable to wildlife and are not closed off by close boarded fencing or walls, consider using native hedgerows for boundaries, and making sure the buildings are located away from the existing boundaries where possible to help prevent the existing boundaries becoming lit by artificial lighting and protecting any new features crossing the site from being illuminated.

6.2. Habitats

A section of HB3 and H2 will unavoidably need be removed to create new access to the two southern plots. The proposed scrub or woody planting (labelled dense vegetation in the proposed plans) along the edges and between the new plots within the site would help restore and compensate for this loss and potentially enhance and increase the sites biodiversity value. The removed stone and soil from the sections of hedgebank and hedge to be removed should be used to create the proposed graded banks between the plots to make use of the seed banks they contain.

The poor semi-improved grassland within the site will be lost as a result of the development. However, the use of a native species rich seed mixes, or turf, to create any grassed areas and the proposed living roof would help compensate for this loss.

The remaining Cornish hedgebanks, species rich and species poor hedge should be retained and protected during the works and allowed to establish and be enhanced, where appropriate, with additional native woody planting. The remaining section of HB3 would particularly benefit from planting up and being allowed to develop a dense woody top so as to improve the screening of the site to reduce light spill and increase the foraging and nesting potential for wildlife.

The adjacent strip of woodland to the south may become impacted by the introduction of artificial light on the exterior of the buildings and parking areas, this should be avoided. Allowing the remaining sections of H2 and H1 to mature and grow up would provide natural screening from any additional lighting, the use of sensitive lighting systems would further minimise this impact.

6.3. Nightscape and artificial lighting

The introduction of artificial light and the use of insensitive lighting on the exteriors of the new buildings has the potential to reduce the value of the boundary and adjacent habitats to wildlife, as the proposed commercial units are of a decent size and likely to be quite tall. All light should be directed into the site away from the boundaries, Lux levels within 3 metres of the boundary features should be no more than 0.5lux and should be warm white in colour, downward directional (below horizontal) and triggered on short timers to help minimise the amount of artificial light added into the site and surrounding area.

6.4. Flora and Fauna

The proposed development has some potential to adversely impact protected species that could be present within or using the habitats on site and may also result in the loss of a small amount of available feeding, resting or nesting habitat.

6.4.1. Plants

There is potential for some protected plant species to be present in the hedges and hedgebanks that are likely to be impacted by the works. To avoid any loss of protected plant species any soil removed from the areas to be impacted should be retained and reused in the creation of the plot boundaries where possible.

6.4.2. Bats

The hedgebanks are low cut and appear to have been regularly managed over many years, there are very few records of bats in the area and there may also be direct light spill from the adjacent depot. This site is likely to be of low value to local bat populations with more suitable wooded habitats to the north east, south east and west of the site.

Additionally, if the final scheme is similar to the indicative scheme proposed and the extra tree and shrub planting is undertaken along with the existing hedgebanks and hedges being allowed to establish and grow in height there could be an increase in potential foraging habitat providing that sensitive lighting systems are used.

On this basis it is unlikely the proposal will significantly adversely affect the species assemblage or extent of use of the site by foraging bats. Further survey work for bats is unlikely to provide additional information regarding the use of the site by bats or the mitigation recommended.

No further survey work for bats is recommended.

6.4.3. Nesting birds

It is likely that common bird species nest on site within the Cornish hedgebanks and hedges; sections of these habitats will be directly impacted by the proposed works. If the habitats likely to be used for nesting by birds are to be impacted by any works, including the trimming or removal of vegetation, which should be avoided where possible, then these should be carried out outside of the accepted bird nesting season (March to August inclusive). If this is not possible and considering the small areas of habitat likely to be impacted then the vegetation, only where necessary, should be cleared under an

ecological watching brief to ensure no birds, active nests or fledgelings are present. If nesting birds are found to be present the works in the vicinity of these nests will need to be suspended until after the chicks have left the nest and the nest is no longer considered to be active. This is because birds are protected by law whilst nesting.

No further survey work prior to work commencing for nesting birds is required at this time.

6.4.4. Reptiles

The south east facing HB2 and HB3 and the south west facing tussocky areas of grassland and the interfaces between the two have some potential to be used by small numbers of the more widely spread UK reptile species.

Considering the size of the suitable areas of habitat that will be removed and the low potential for reptiles to be present, with no records of reptiles in the area and the disturbed nature of the ground, it is recommended that Reasonable Avoidance Measures (RAMs) should be used alongside an ecological watching brief conducted by a suitably qualified ecologist to protect any reptiles present during the clearance of the turf and other suitable habitats. These measures should involve the use of a toothed bucket to remove the turf during the active season (March to October) and setting the turf aside for 24 hours to allow any reptiles present to escape.

Should works commence outside of the active reptile season the clearance of the turf and sub soil to a depth of 500mm should be conducted under an ecological watching brief as there is potential for reptiles to be hibernating deeper in the soil but this should be avoided if possible

No further survey work for reptiles prior to works commencing is recommended.

6.5. Summary of the required Phase 2 surveys

No significant evidence of the use of the site by protected species was found during this survey. There is limited potential for this site to be used by protected species and so no further survey work for protected species prior to works commencing is required to help inform mitigation or ecological constraints. However, as sections of Cornish hedgebank 3 and hedge 2 and large areas of grassland with some limited potential to support reptiles are to be impacted by the works the following is recommended:

An ecological watching brief for birds should be conducted if the habitats likely to be used for nesting by birds are to be impacted by any works, including the trimming or removal of vegetation during the accepted bird nesting season (March to August inclusive).

Reasonable Avoidance Measures (RAMs), as stated above, along with an ecological watching brief for reptiles should be conducted during the clearance of habitats on site identified with the potential to support reptiles.

If the enhancement and avoidance measures recommended are adopted (e.g., with regards to lighting, re using soils and allowing the remaining hedges and hedgebanks to grow up) there should be no adverse impacts on protected species.

6.6. Recommendations for maintaining and enhancing the biodiversity value of the site

There are opportunities to maintain and enhance the biodiversity value of the site, these include:

- Protecting the existing Cornish hedgebanks (both the hedgebank and vegetation topping it) and hedges where possible onsite and enhancing, where appropriate, with native planting upon completion,
- Create the new plot boundaries with existing soil taken from the site and native hedgerow planting to maintain existing plant assemblages and create additional artificial light screening, nesting and foraging habitat for wildlife,
- Limit external lighting to only where it is required, it should only be used where it is absolutely necessary and should involve the use of sensitive lighting systems; this should involve warm white coloured bulbs, preferably lower than 0.5 Lux especially within 3 metres of the boundaries, be downward pointing and triggered on short timers to help minimise the amount of artificial light added into the site and light spill into the surrounding area,
- Use native wildflower seed mixes or species rich turf suitable for mowing for any proposed grassy areas and the living roof, to increase the biodiversity value of the site,
- If solid boundaries are introduced around the buildings (using close boarded wooden fencing or walls) ensure small gaps are present within these boundaries to ensure they are permeable to wildlife to allow Hedgehogs, other small mammals, reptiles and amphibians to access and traverse the site to avoid habitat fragmentation,
- Including deep over hanging eaves in the design of the new buildings to allow swallows and house martins to build natural nests under, and erect bird boxes on to suitable trees or the exterior of the building,
- Erecting bat boxes onto the buildings or incorporate built in bat boxes into appropriate aspects of the new buildings.

7. CONCLUSIONS AND SUMMARY OF FURTHER SURVEY WORK

The proposed scheme will sit entirely within the existing boundaries of the site and is unlikely to adversely impact any surrounding landscape or habitats providing sensitive lighting is used. There are no statutory or non-statutory designated areas in close proximity to the site which are likely to be impacted by the proposal; the nearest designated site is 700m to the west and separated by numerous fields, field boundaries and the adjacent depot.

The development of the field is likely to increase the fragmentation of the landscape and reduce the movement around and through the site by mobile local wildlife due the creation of gaps in the hedgebanks, removal of the grassland and introduction of artificial light. However, there did not appear to be a great deal of activity within the site and there are a low number of records of mobile animal species in the records search of the surrounding area.

A section of HB3 and H2 will unavoidably need be removed to create new access to the two southern plots. The proposed scrub or woody planting (labelled dense vegetation in the proposed plans) along the edges and between the new plots within the site would help restore and compensate for this loss and potentially enhance and increase the sites biodiversity value. The removed stone and soil from the sections of hedgebank and hedge to be removed should be used to create the proposed graded banks between the plots to make use of the seed banks they contain.

The poor semi-improved grassland within the site will be lost as a result of the development. However, the use of a native species rich seed mixes, or turf, to create any grassed areas and the proposed living roof would help compensate for this loss.

The remaining Cornish hedgebanks, species rich and species poor hedge should be retained and protected during the works and allowed to establish and be enhanced, where appropriate, with additional native woody planting. The remaining section of HB3 would particularly benefit from planting up and being allowed to develop a dense woody top so as to improve the screening of the site to reduce light spill and increase the foraging and nesting potential for wildlife.

No significant evidence of the use of the site by protected species was found during this survey. There is limited potential for this site to be used by protected species and so no further survey work for protected species prior to works commencing is required to help inform mitigation or ecological constraints. However, as sections of Cornish hedgebank 3 and hedge 2 and large areas of grassland with some limited potential to support reptiles are to be impacted by the works the following is recommended:

An ecological watching brief for birds should be conducted if the habitats likely to be used for nesting by birds are to be impacted by any works, including the trimming or removal of vegetation during the accepted bird nesting season (March to August inclusive).

Reasonable Avoidance Measures (RAMs), as stated above, along with an ecological watching brief for reptiles should be conducted during the clearance of habitats on site identified with the potential to support reptiles.

If the enhancement and avoidance measures recommended are adopted (e.g., with regards to lighting, re using soils and allowing the remaining hedges and hedgebanks to grow up) there should be no adverse impacts on protected species.

7.1. Summary of further survey work

Currently no further survey work for protected species is required before works commence, however the following recommendations should be followed:

Birds

An ecological watching brief for birds should be conducted if the habitats likely to be used for nesting by birds are to be impacted by any works, including the trimming or removal of vegetation during the accepted bird nesting season (March to August inclusive).

Reptiles

Reasonable Avoidance Measures (RAMs), as stated above, along with an ecological watching brief for reptiles should be conducted during the clearance of habitats on site identified with the potential to support reptiles.

7.2. Recommendations for maintaining and enhancing the biodiversity value of the site

There are opportunities to maintain and enhance the biodiversity value of the site, these include:

- Protecting the existing Cornish hedgebanks (both the hedgebank and vegetation topping it) and hedges where possible onsite and enhancing, where appropriate, with native planting upon completion,
- Create the new plot boundaries with existing soil taken from the site and native hedgerow planting to maintain existing plant assemblages and create additional artificial light screening, nesting and foraging habitat for wildlife,
- Limit external lighting to only where it is required, it should only be used where it is absolutely necessary and should involve the use of sensitive lighting systems; this should involve warm white coloured bulbs, preferably lower than 0.5 Lux especially within 3 metres of the boundaries, be downward pointing and triggered on short timers to help minimise the amount of artificial light added into the site and light spill into the surrounding area.
- Use native wildflower seed mixes or species rich turf suitable for mowing for any proposed grassy areas and the living roof, to increase the biodiversity value of the site,
- If solid boundaries are introduced around the buildings (using close boarded wooden fencing or walls) ensure small gaps are present within these boundaries to ensure they are permeable to wildlife to allow Hedgehogs, other small mammals, reptiles and amphibians to access and traverse the site to avoid habitat fragmentation,
- Including deep over hanging eaves in the design of the new buildings to allow swallows and house martins to build natural nests under, and erect bird boxes on to suitable trees or the exterior of the building,
- Erecting bat boxes onto the buildings or incorporate built in bat boxes into appropriate aspects of the new buildings.

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8. APPENDICES

APPENDIX 1

 Vascular plants recorded on land at Nancemeer Farm, Mitchell, Cornwall
April 2021

A = Abundant C = Common F = Frequent O = Occasional R = Rare (L*) = Indicates Local Abundance

POOR SEMI-IMPROVED GRASSLAND

Scientific name	Common name	Abundance
<i>Agrostis stolonifera</i>	Creeping Bent	O
<i>Anthriscus sylvestris</i>	Cow Parsnip	O
<i>Dactylis glomerata</i>	Cock's-foot	LA
<i>Holcus lanatus</i>	Yorkshire-fog	F
<i>Lolium perenne</i>	Perennial Rye-grass	O
<i>Plantago lanceolata</i>	Ribwort Plantain	R
<i>Prunus spinosa</i>	Blackthorn	R
<i>Rumex obtusifolius</i>	Broad-leaved Dock	R
<i>Silene dioica</i>	Red Campion	O
<i>Taraxacum officinale</i>	Dandelion	C
<i>Trifolium repens</i>	White Clover	LA
<i>Urtica dioica</i>	Common Nettle	R
<i>Viola sp.</i>	Violet	R

CORNISH HEDGEBANK 1

Scientific name	Common name	Abundance
<i>Atriplex patula</i>	Common Polypody	C
<i>Corylus avellana</i>	Hazel	C
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Digitalis purpurea</i>	Foxglove	R
<i>Galium mollugo</i>	Hedge Bedstraw	LA
<i>Glechoma hederacea</i>	Ground-Ivy	O
<i>Hedera helix</i>	Common Ivy	C
<i>Hieracium apheles</i>	Herb Robert	O
<i>Hyacinthoides sp.</i>	Bluebell	LA
<i>Lolium perenne</i>	Perennial Rye-grass	O
<i>Rubus fruticosus</i>	Bramble	C
<i>Silene dioica</i>	Red Campion	O
<i>Ulex europaeus</i>	European Gorse	LA
<i>Urtica dioica</i>	Common Nettle	O

CORNISH HEDGEBANK 2

Scientific name	Common name	Abundance
<i>Agrostis sp.</i>	a Bent sp.	F
<i>Brachypodium sylvaticum</i>	False Brome	O
<i>Corylus avellana</i>	Hazel	C
<i>Digitalis purpurea</i>	Foxglove	R
<i>Galium mollugo</i>	Hedge Bedstraw	O

<i>Hedera helix</i>	Common Ivy	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Lonicera periclymenum</i>	Honeysuckle	C
<i>Prunus spinosa</i>	Blackthorn	C
<i>Rubus fruticosus</i>	Bramble	C
<i>Teucrium scorodonia</i>	Wood sage	O
<i>Urtica dioica</i>	Common Nettle	LA

CORNISH HEDGEBANK 3

Scientific name	Common name	Abundance
<i>Agrostis stolonifera</i>	Creeping Bent	F
<i>Crataegus monogyna</i>	Hawthorn	C
<i>Digitalis purpurea</i>	Foxglove	O
<i>Galium mollugo</i>	Hedge Bedstraw	LA
<i>Hedera helix</i>	Common Ivy	C
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Hyacinthoides sp.</i>	Bluebell sp.	O
<i>Lonicera periclymenum</i>	Honeysuckle	C
<i>Pteridium aquilinum</i>	Bracken	O
<i>Quercus sp.</i>	an Oak sp.	O
<i>Ranunculus subg. Ficaria</i>	Lesser Celandine	O
<i>Silene dioica</i>	Red Campion	O
<i>Teucrium scorodonia</i>	Wood sage	R

NATIVE SPECIES RICH HEDGE

Scientific name	Common name	Abundance
<i>Pastinaca sativa</i>	Wild Parsnip	O
<i>Corylus avellana</i>	Hazel	C
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Fagus sylvatica</i>	Beech	O
<i>Hyacinthoides sp.</i>	Bluebell sp.	R
<i>Prunus spinosa</i>	Blackthorn	C
<i>Rubus fruticosus</i>	Bramble	A
<i>Ulex europaeus</i>	European Gorse	O
<i>Urtica dioica</i>	Common Nettle	O

NATIVE SPECIES POOR HEDGE

Scientific name	Common name	Abundance
<i>Corylus avellana</i>	Hazel	O
<i>Crataegus monogyna</i>	Hawthorn	A
<i>Fagus sylvatica</i>	Beech	R
<i>Rubus fruticosus</i>	Bramble	O
<i>Ulex europaeus</i>	European Gorse	O

Summary of legal protection covering general and specific animal groups

Species	Protection status
Plants	Many plants are fully protected as a European Protected Species (EPS) These are listed in Annexes II and IV of the European Habitats Directive. In the UK protected plants are listed under Schedule 8 Section 13. Section 13 protects plants from picking and sale of plants or parts of plants.
Bats	The Wildlife and Countryside Act 1981 protects bats and their roosts in England, Scotland and Wales. Some parts have been amended by the Countryside and Rights of Way Act 2000 (CRoW) which applies only in England and Wales. The Conservation of Habitats and Species Regulations 2010 implements the Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora. All bats are listed as European protected species of animals. It is illegal to intentionally kill, injure or capture bats or to deliberately disturb them. It is also illegal to damage, destroy, or obstruct access to bat roosts.
Common/Hazel Dormouse	The Common Dormouse is protected from intentional or reckless killing, injury or capture, deliberate disturbance (whether in a nest or not) and damage or destruction of a breeding site or resting place used by a Dormouse under the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended). The Dormouse is also a species of Principal Importance and a Priority Biodiversity Action Plan Species (UK BAP, 2007) so the presence of this species on site would be a material consideration for planning purposes.
Nesting Birds	Schedule 1 Part 1 of the Wildlife and Countryside Act 1981 (as amended) prohibits the intentional killing, injuring or taking of any wild bird and the taking, damaging or destroying of the nest (whilst being built or in use) or eggs. Nests may be lawfully destroyed when not in use, i.e., outside the nesting season (September to February). Schedule 1 part 2 of the Wildlife and Countryside Act 1981 (as amended) adds special protection to birds listed during the close season which is 1 February to 31 August (21 February to 31 August below highwater mark) but these species may be killed or taken outside this period. The Countryside and Rights of Way Act 2000 (The CRoW Act) Schedule 12 adds the words “or recklessly” after the word “intentional” for a range of wildlife species including nesting birds listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), thus providing fuller protection than previously granted.
Badger	Badgers are protected and so are the setts they live in, under the Protection of Badgers Act 1992, in England and Wales it is an offence to: <ul style="list-style-type: none"> • Wilfully kill, injure or take a badger (or attempt to do so). • Cruelly ill-treat a badger. • Dig for a badger. • Intentionally or recklessly damage or destroy a badger sett or obstruct access to it. • Cause a dog to enter a badger sett. • Disturb a badger when it is occupying a sett.

<p>Otter</p>	<p>The Eurasian Otter is fully protected as a European Protected Species (EPS) and is also protected under sections 9 and 11 of the Wildlife and Countryside Act 1981. It is illegal to:</p> <ul style="list-style-type: none"> • Capture, kill, disturb or injure otters (on purpose or by not taking enough care) • Damage or destroy a breeding or resting place (deliberately or by not taking enough care) • Obstruct access to their resting or sheltering places (deliberately or by not taking enough care) • Possess, sell, control or transport live or dead Otters, or parts of Otters
<p>Reptiles</p>	<p>In the UK all six native species of reptile receive legal protection. The four widespread species 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 this Act individual animals are protected from intentional killing or injury and also from sale or attempted sale. All native reptiles are species of Principal Importance and Priority Biodiversity Action Plan Species (UK BAP, 2007) so the presence of this species on site would be a material consideration for planning purposes.</p>
<p>Amphibians</p>	<p>Amphibians Are protected via part of Section 9(5) of the Wildlife & Countryside Act 1981 (as amended) against:</p> <ul style="list-style-type: none"> • selling, offering or exposing for sale, or having in possession or transporting for the purpose of sale, any live or dead wild animal or any part of, or anything derived from, such an animal; or • publishing or causing to be published any advertisement likely to be understood as conveying buying or selling, or intending to buy or sell, any of those things. <p>This legislation relates only to ‘wild animals’, but in any proceedings the animal in question shall be presumed to have been a wild animal unless the contrary is shown. This protection is solely through the Wildlife & Countryside Act 1981 as amended, and defences and licensing provisions are provided within that Act.</p>

Sources for criteria for assessment of nature conservation importance

Habitats and species located during the field and desk surveys have been assessed for their significance according to the following sources:

International

European Habitats and Species Directive (CEC, 1992)
European Red Data lists (IUCN, 2000)
European Birds Directive (CEC, 1979)
Water Framework Directive (2000/60/EC)

National

Conservation of Habitats and Species Regulations (2010) and amendment (2012)
Wildlife and Countryside Act 1981 and amendments
Countryside and Rights of Way Act 2000
Natural Environment and Rural Communities Act 2006
Protection of Badgers Act 1992
The Hedgerow Regulations 1997
UK Biodiversity Steering Group reports (UKBSG, 1995 and updates)
UK Biodiversity Action Plan: Species and Habitat Review, 2007
British Red Data Books and Lists (various authorities)
Birds of Conservation Concern 4; the population status of birds in the United Kingdom, Channel Islands and Isle of Man (fourth, 2009, review) (Eaton et al, 2015)
Guidelines for Selection of Biological SSSIs (NCC, 1989 and updates)
Water Framework (Water Framework Directive) (England and Wales) Regulations 2003 (the Water Framework Regulations)

County and local significance

Cornwall Biodiversity Initiative Reports 1 - 4 (CBI, 2009, 2011)
Red Data Book for Cornwall and the Isles of Scilly (CISFBR, 2009)
Flora of Cornwall (French, Murphy and Atkinson, 1999)

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UK Biodiversity Action Plan (UK BAP) <http://www.jncc.gov.uk/page-5155>



APPENDIX 5

Terms of desktop search and map showing area and location of designated conservation sites in the vicinity of the site.

A data search from the Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS) was conducted for a radius of 1km from the site for all species.



ERCCIS Data Search SUMMARY REPORT



Report on data hosted at ERCCIS on species, habitats, statutory and non-statutory designations

Reference: **Nancemeer Farm 1km records**

Location: **50.35555 / -5.00248**

Buffer: **1 KILOMETRES**

Date of Publication: **01/04/2021**

Expires: **01/04/2022**

Organisation: **Wheal Grey Ecology Ltd**

Hosted by:



Cornwall Wildlife Trust

Registered charity number: 214929



Recording | Mapping | Informing



ERCCIS Data Search Disclaimer:

Please note that Biological Records within this report have been provided by third parties including other users of the ERCCIS site and whilst ERCCIS aims to verify these Biological Records where possible, certain information and materials will not have been verified or approved by ERCCIS and should therefore not be relied on. ERCCIS cannot guarantee that the Biological Records are complete and/or accurate, that the species detailed in the Biological Records continue to be present in the area recorded or that the lack of a species being present in a Biological Record correlates with there being a low biodiversity value or absence of the species in the EDS geographical area. For further details please see our Terms of Use and Order Terms which apply to the provision of this information.

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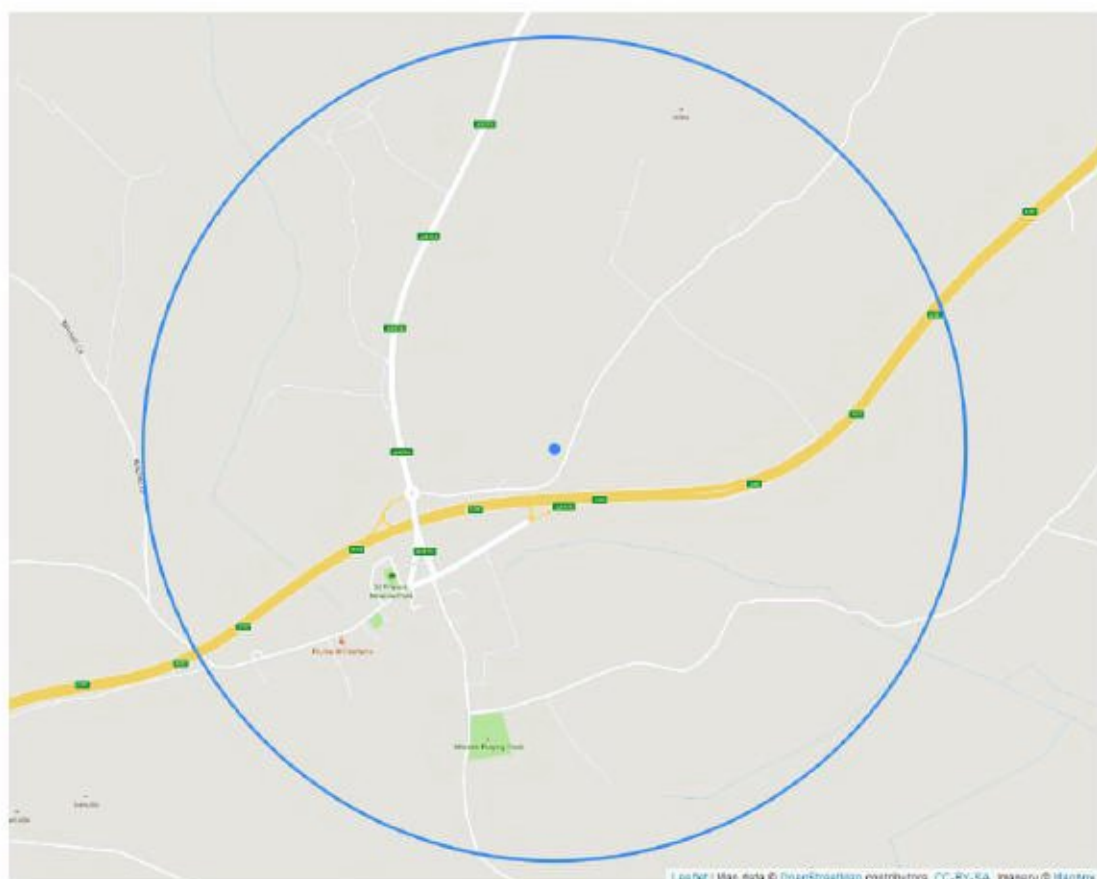
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Report Details



Report for: Matthew Thurlow

Organisation: Wheal Grey Ecology Ltd

Date: 01/04/2021

The following report summarises data currently held at the Environmental Record Centre for Cornwall and Isles of Scilly (ERCCIS) and found within the search radius. This report summarises a search of statutory sites, non-statutory sites, other sites, habitats and species within the specified area of study.

The species data held by ERCCIS are collated from the biological recording community in Cornwall and Scilly, from statutory bodies, non-government organisations and local groups, ecological consultant report outputs as well as ad hoc records from a wider audience. However, there are areas of Cornwall where the records held are limited: either spatially, temporally, or taxonomically. It must be assumed that this report contains the definitive species and habitat information for the site concerned. ERCCIS continually strives to further improve and update all data wherever possible. However, this report should be treated as indicative of the best available data, rather than definitive.

The report is for the client's use to inform understanding of the site of interest. This report must not be distributed or published for an external or public audience, with the only exception being part of wider reports for the Cornwall Council on-line planning system. Data from within this report may be referenced as long as the Environmental Records for Cornwall and the Isles of Scilly is acknowledged.

A data search from ERCCIS will give the user a clear indication of what biological recording has taken place. The information provided with decision making of future management or purposing of the site, but should be used in conjunction with site visits and appropriate surveys before further judgements on the presence or absence of key species or habitats can be made.

The Environmental Records Centre for Cornwall and the Isles of Scilly must be acknowledged whenever data is cited from this report.





Statutory Sites within the search area

Statutory sites are those given level protection aimed at preventing activities that may damage features of interest. Further details can be found in the ERCCIS report summary .pdf or from Natural England and The National Association for Areas of Outstanding Natural Beauty.

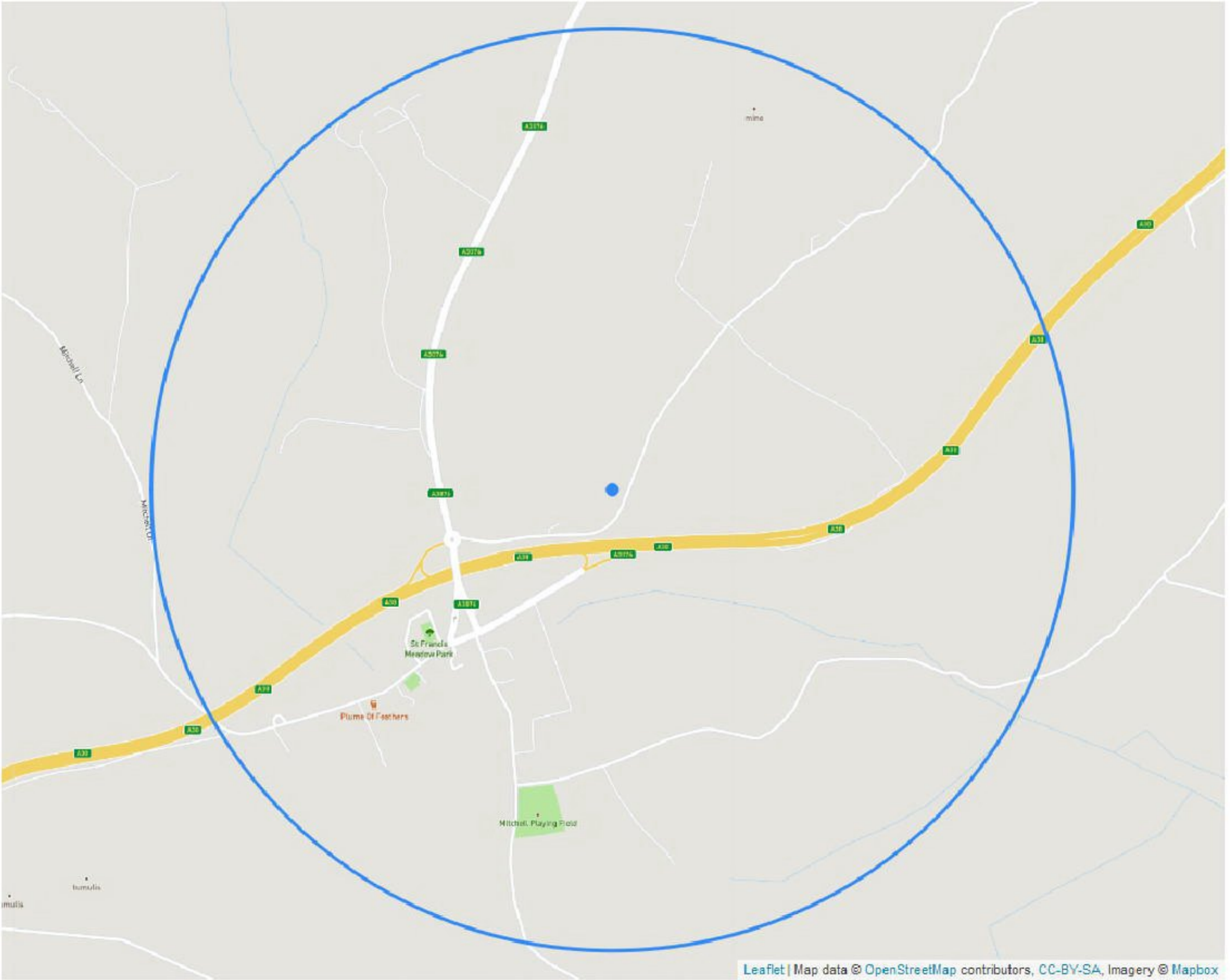
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Site Type	Site Code	Site Name	Hyperlink	Site Area (ha)
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Statutory Sites Map



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Location	Site Code	Colour
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Non-Statutory Sites & Reserves

Non-statutory sites are sites that have wildlife or habitat interest, but lack a legal protection. These sites form part of the natural environments wider ecological network

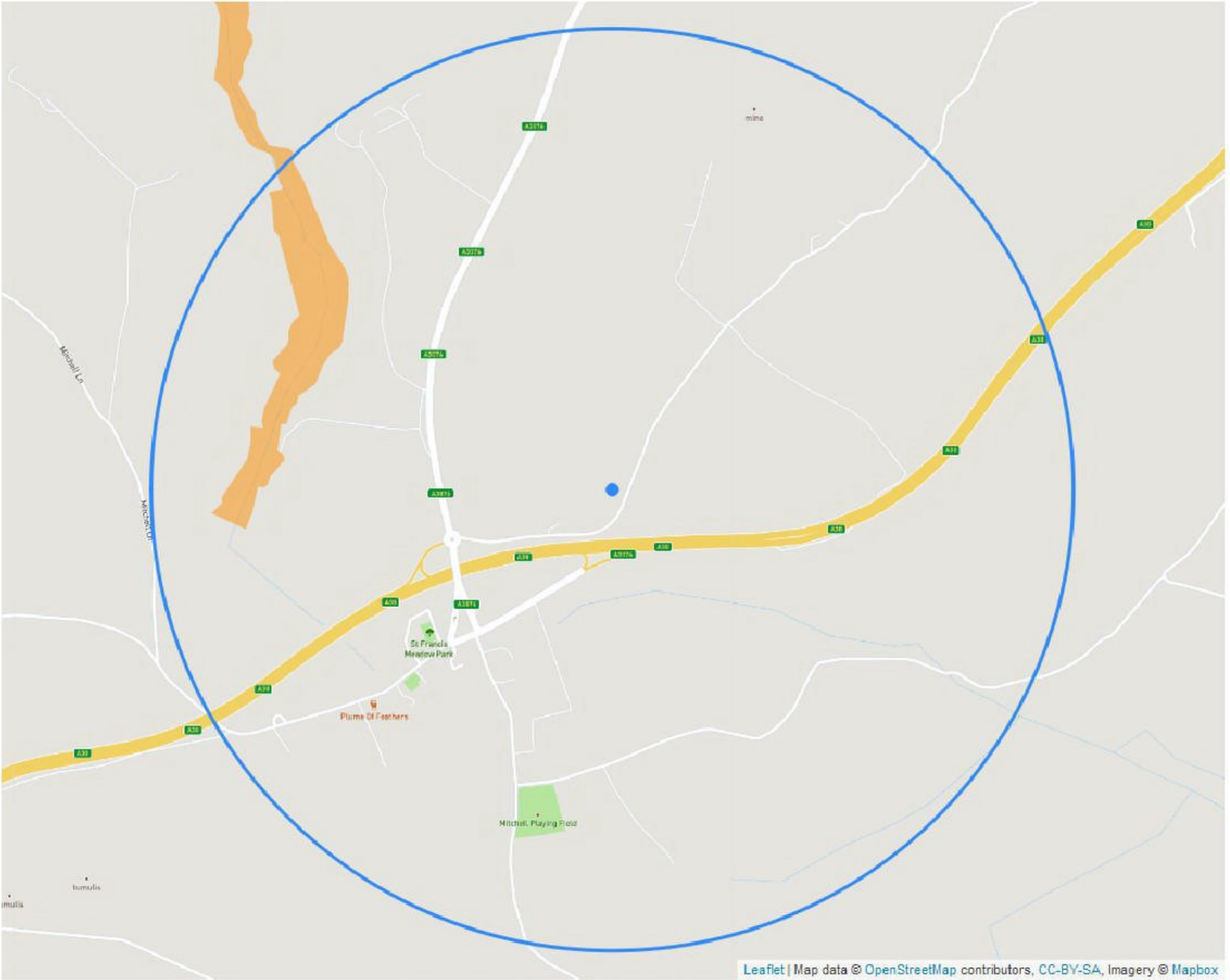
The report summarises all County Wildlife & Geology Sites which are sites recognised for wildlife or geological value and the Local Sites partnership in Cornwall is coordinated by Cornwall Wildlife Trust. It also includes summaries of the Road Side Verge Inventory; Voluntary Marine Conservation Area; Ancient Woodland; Ancient Monuments and the Reserves of Cornwall Wildlife Trust; National Trust; Woodland Trust and the Royal Society for the Protection of Birds (RSPB).

Further details can be found in the ECCRIS report summary .pdf, but for specific information on a site listed below you might need to contact the relevant organisation.


Site Type	Site Code	Site Name	Hyperlink	Site Area (ha)
CWS	CK5	Benny Mill Valley	https://www.orks.org.uk/sites/default/files/EDS_Links/CWS/CK5%20-%20Benny%20Mill%20Valley.pdf	33.75



Non-Statutory Sites & Reserves Map



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Location	Site Code	Colour
1	CK5	



Habitats

The Environmental Records Centre for Cornwall and the Isles of Scilly provide three summaries of the habitat in your search area.

First is the Biodiversity Action Plan (BAP) habitat map. BAP Habitats are now called priority habitats and are those identified as being the most threatened and requiring conservation action in Cornwall. However it should be noted that absence of information doesn't mean that the Priority habitat isn't present.

The report also summarises the ERCCIS land cover interpretation and Phase One interpretation which represents the most up - to - date habitat data held by ERCCIS. Further details and be found in the ERCCIS report summary.pdf.

Habitat Type	Habitat Code	Habitat Name	Site Area (ha)
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Habitat Type	Habitat Code	Habitat Name	Site Area (ha)
Land Cover	n/a	Acid Grassland	0.49
Land Cover	n/a	Arable and Horticultural	130.97
Land Cover	n/a	Boundary and Linear Features	11.87
Land Cover	n/a	Bracken	0.27
Land Cover	n/a	Broadleaved, Mixed and Yew Woodland	37.82
Land Cover	n/a	Built-up Areas and Gardens	11.84
Land Cover	n/a	Coniferous Woodland	8.80
Land Cover	n/a	Improved Grassland	1,605.87
Land Cover	n/a	Neutral Grassland	0.96
Land Cover	n/a	Standing Open Water and Canals	0.28

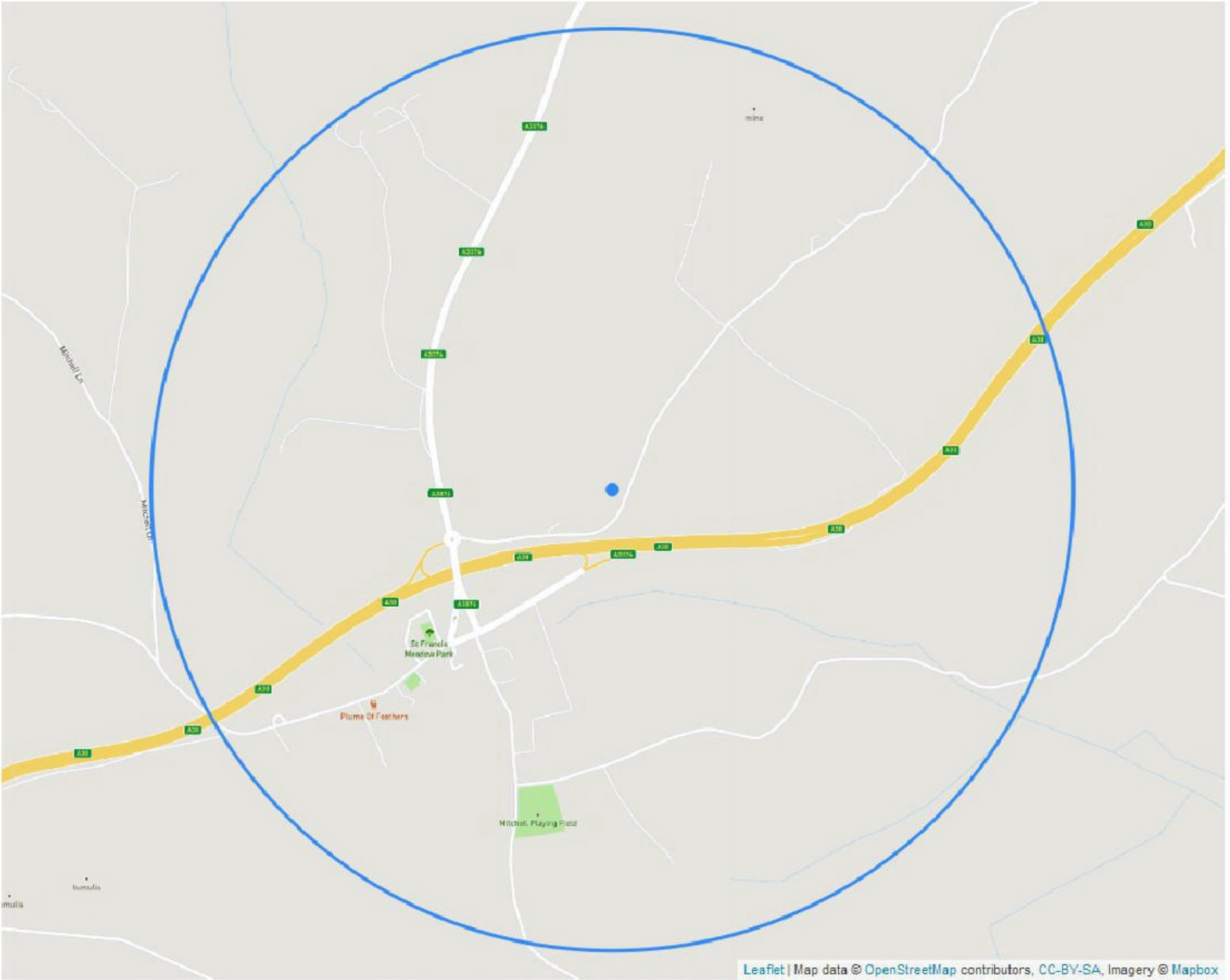
Habitat Type	Habitat Code	Habitat Name	Site Area (ha)
Phase One	Arable	J1	130.98
Phase One	Bracken	C1	0.27
Phase One	Broadleaved woodland	A1.1	33.72
Phase One	Built environment	J2	11.91
Phase One	Built environment	J3	11.84
Phase One	Coniferous woodland	A1.2	8.80
Phase One	Improved grassland	B4	1,605.94



Phase One	Marsh/marshy grassland	B5	0.54
Phase One	Scrub	A2	4.10
Phase One	Standing water	G1	0.28
Phase One	Unimproved grassland / Bracken (possibly)	B1	0.49
Phase One	Unimproved grassland / Bracken (possibly)	B2	0.42



Priority Habitat Map



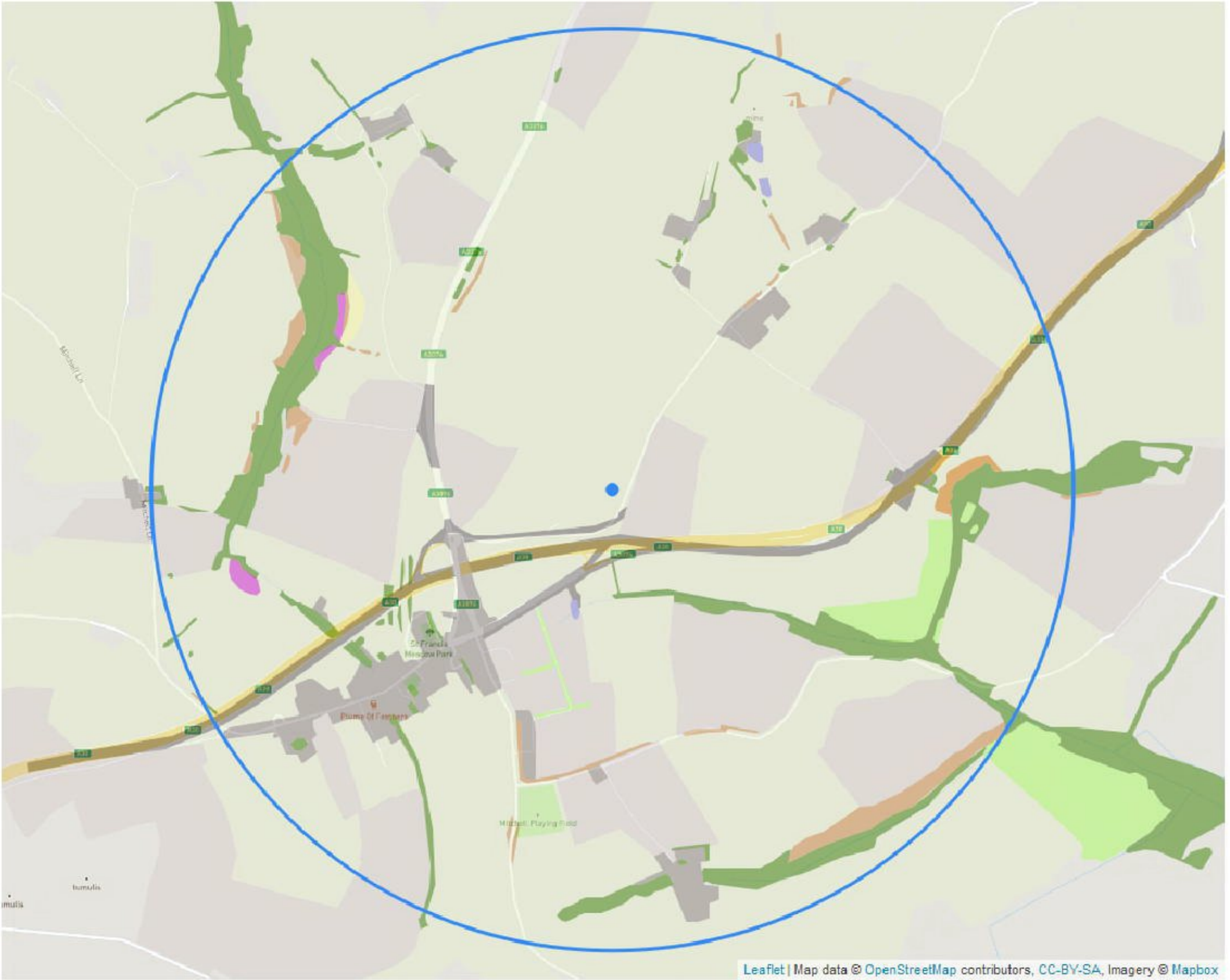
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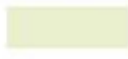

Habitat Name	Colour
--------------	--------







Phase One Interpretation Map



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Habitat Code	Colour
J1	
C1	
A1.1	
J2	
J3	
A1.2	
B4	
B5	

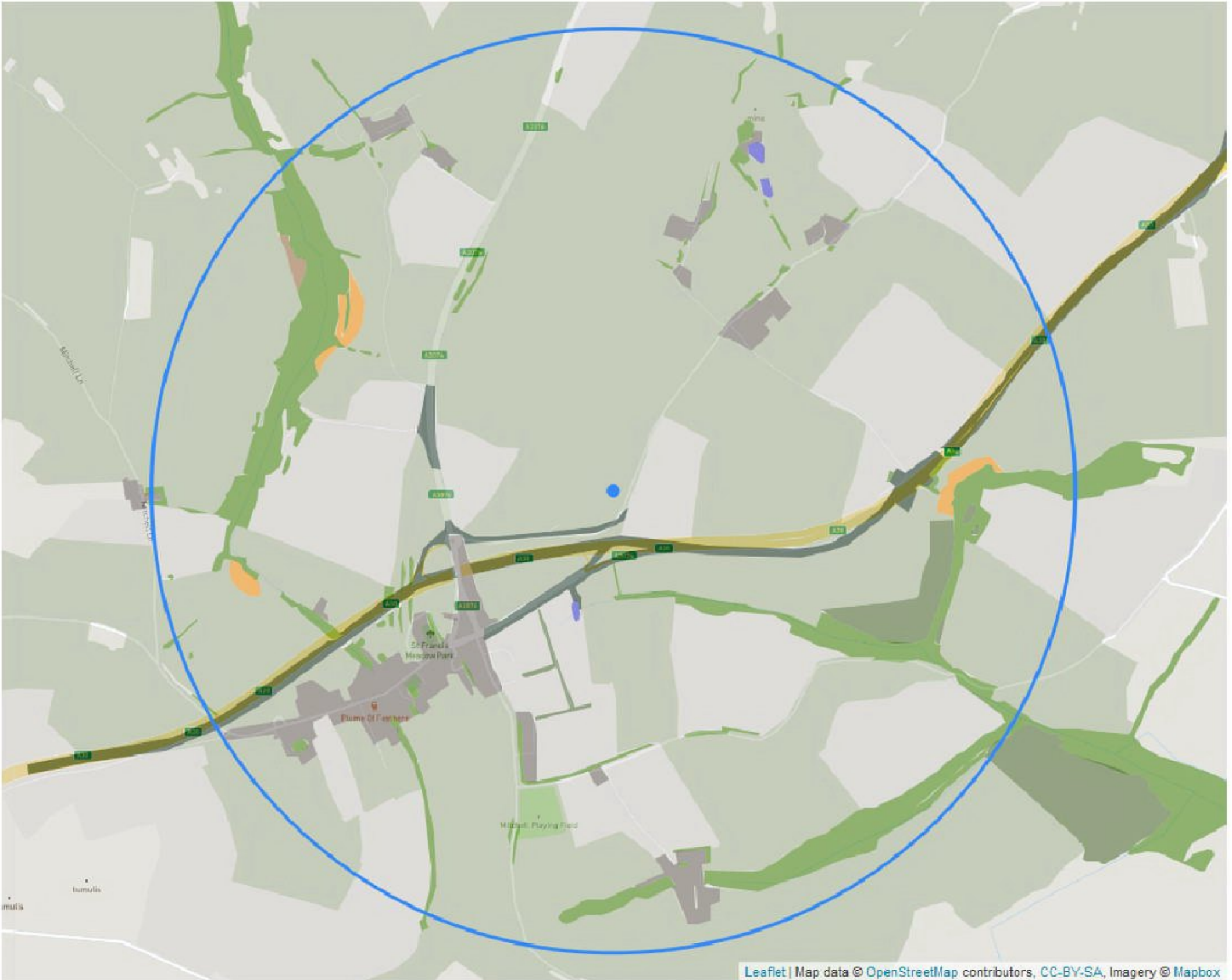


	A2	
	G1	
	B1	
	B2	





ERCCIS Land Cover Habitat Interpretation Map



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Habitat Name	Colour
Acid Grassland	
Arable and Horticultural	
Boundary and Linear Features	
Bracken	
Broadleaved, Mixed and Yew Woodland	
Built-up Areas and Gardens	
Coniferous Woodland	
Improved Grassland	

Hosted by:



Cornwall Wildlife Trust

Registered charity number: 214929





Neutral Grassland	
Standing Open Water and Canals	





Summary Species Table

The Environmental Records for Cornwall and the Isles of Scilly holds biological records on the following species within or overlapping the search area.

Please note that past records of presence of a species does not guarantee continued occurrence and absence of records does not imply absence of a species, merely that no records are held. Confidential data, zero abundance records, data at poorly defined geographic resolutions and data pending validation and/or verification are also excluded from this report.

This table summarises records from 1960 onwards. The sighting numbers are total number of records in period, not the number of individuals.

Details on abundance can be seen in your excel dataset, but please note that where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record.

Abbreviation designation	As list on one or more of the following;
Protected	Bern Convention; Bonn Convention; EC Birds Directive; Convention on Migratory Species; CITES; Habitat Directive; OSPAR; Protection of Badgers Act; Wildlife and Countryside Act; NERC s41
Priority	National Red data list; BAP Species
Local Priority	Cornwall Red Data Book
Non-Native	As listed on the ERCCIS interpreted INNS list

Confidential records

Certain records are marked as confidential by the original recorder and ERCCIS respects the original recorders wishes.

Sensitive Records

Certain records are marked as sensitive by the original recorder and ERCCIS respects the original recorders wishes.





Protected and designated species records table

This table summarises records from 1960 onwards. The sighting numbers are total number of records in period, not the number of individuals

Details on abundance can be seen in your excel dataset, but please note that where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record

Amphibian				
Lissotriton helveticus	Palmate Newt	1	2018 - 2018	Protected
Bird				
Accipiter nisus	Sparrowhawk	2	1997 - 2009	Protected, Priority
Actitis hypoleucos	Common Sandpiper	1	1974 - 1974	Protected, Priority
Ardea cinerea	Grey Heron	1	2004 - 2004	Protected, Priority
Buteo buteo	Buzzard	10	1992 - 2019	Protected
Cyanistes caeruleus	Blue Tit	1	2009 - 2009	Protected
Erithacus rubecula	Robin	2	1994 - 2009	Protected
Falco columbarius	Merlin	1	2003 - 2003	Protected, Priority
Falco tinnunculus	Kestrel	4	1997 - 2007	Protected, Priority
Hirundo rustica	Swallow	1	1997 - 1997	Protected
Loxia curvirostra	Common Crossbill	1	2005 - 2005	Protected
Milvus milvus	Red Kite	1	2006 - 2006	Protected
Parus major	Great Tit	1	2009 - 2009	Protected
Passer domesticus	House Sparrow	1	2009 - 2009	Priority
Phasianus colchicus	Pheasant	1	2012 - 2012	Protected
Pica pica	Magpie	2	1992 - 1994	Protected
Scolopax rusticola	Woodcock	1	2006 - 2006	Protected, Priority
Spinus spinus	Siskin	1	1968 - 1968	Protected
Streptopelia decaocto	Collared Dove	1	2009 - 2009	Protected, Priority
Sturnus vulgaris	Starling	1	2009 - 2009	Protected, Priority
Troglodytes troglodytes	Wren	1	1993 - 1993	Protected
Turdus merula	Blackbird	4	1993 - 2012	Protected
Turdus viscivorus	Mistle Thrush	1	2017 - 2017	Protected, Priority
Tyto alba	Barn Owl	5	1996 - 2019	Protected





<i>Vanellus vanellus</i>	Lapwing	1	2011 - 2011	Protected, Priority
Flowering Plant				
<i>Allium triquetrum</i>	Three-cornered Garlic	5	1991 - 2012	Protected, Non-Native
<i>Buddleja davidii</i>	Butterfly-bush	1	2013 - 2013	Non-Native
<i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia	9	1990 - 2013	Protected, Non-Native
<i>Euphrasia nemorosa</i>	Common Eyebright	1	2013 - 2013	Priority
<i>Fallopia japonica</i>	Japanese Knotweed	1	1999 - 1999	Protected, Non-Native
<i>Fragaria vesca</i>	Wild Strawberry	3	1994 - 2013	Priority
<i>Glebionis segetum</i>	Corn Marigold	2	2013 - 2013	Priority
<i>Hyacinthoides non-scripta</i>	Bluebell	12	1988 - 2013	Protected
<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>	Yellow Archangel	3	1993 - 2012	Protected, Non-Native
<i>Lathyrus linifolius</i>	Bitter-vetch	1	1994 - 1994	Priority
<i>Oxalis acetosella</i>	Wood-sorrel	1	1990 - 1990	Priority
<i>Petasites fragrans</i>	Winter Heliotrope	4	1990 - 2003	Non-Native
<i>Potentilla erecta</i>	Tormentil	1	1994 - 1994	Priority
<i>Prunus cerasus</i>	Dwarf Cherry	1	2004 - 2004	Priority
<i>Rhododendron ponticum</i>	Rhododendron	1	2012 - 2012	Protected, Non-Native
<i>Solidago virgaurea</i>	Goldenrod	1	1992 - 1992	Priority
<i>Spergula arvensis</i>	Corn Spurrey	10	1992 - 2013	Priority
<i>Stachys arvensis</i>	Field Woundwort	6	1992 - 2013	Priority
<i>Succisa pratensis</i>	Devil's-bit Scabious	1	1994 - 1994	Priority
<i>Valeriana officinalis</i>	Common Valerian	5	1993 - 2012	Priority
Insect - Butterfly				
<i>Lasiommata megera</i>	Wall	3	1994 - 1997	Priority
<i>Plebejus argus</i>	Silver-studded Blue	1	1996 - 1996	Protected, Priority
Insect - Moth				
<i>Tyria jacobaeae</i>	Cinnabar	1	1996 - 1996	Priority
Terrestrial Mammal				
<i>Erinaceus europaeus</i>	West European Hedgehog	5	1993 - 2020	Protected, Priority





Lutra lutra	Eurasian Otter	1	2008 - 2008	Protected, Priority
Meles meles	Eurasian Badger	11	1984 - 2016	Protected
Oryctolagus cuniculus	European Rabbit	2	1990 - 1990	Priority, Non-Native
Rattus norvegicus	Brown Rat	2	2000 - 2006	Non-Native
Sciurus carolinensis	Eastern Grey Squirrel	1	2006 - 2006	Protected, Non-Native

Terrestrial Mammal - Bat

Pipistrellus pipistrellus	Pipistrelle	3	2008 - 2011	Protected
Pipistrellus pygmaeus	Soprano Pipistrelle	1	2009 - 2009	Protected, Priority
Plecotus auritus	Brown Long-eared Bat	2	2011 - 2011	Protected, Priority
Rhinolophus hipposideros	Lesser Horseshoe Bat	1	2011 - 2011	Protected, Priority



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About the Cornwall and the Isles of Scilly Environmental Records Centre

The Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS) collates, manages and disseminates biological and geological information for use in sustainable development, conservation and research. Working with local and national biological recorders and organisations to gather data that is crucial to aid conservation management of sites, to help organisations prioritise action, and to understand the distribution of species and trends over time. For more information on ERCCIS, visit the website at <https://erccis.org.uk>



ERCCIS is accredited by the Association of Local Environmental Records Centres in 2016, by meeting the national standards of environmental data management and provision. For more information on accreditation, see the ALERC website at <http://www.alerc.org.uk/alerc-accreditation.html>