



**Glaven Ecology**



## **Holme House Aylmerton**

**Preliminary Ecological  
Appraisal including a  
Preliminary Roost  
Assessment**

**Prepared by  
Glaven Ecology**

**on behalf of  
Mr. R. Walton**

March 2022

Reference: 85-2101-GE-RW

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Version	Status	Changes	Date	Author
1.1	Draft	Site visit and desktop results	02/03/2022	Carolyn Smith MSc BSc (Hons), MCIEEM
1.3	Issued	Reviewed	04/03/2022	Carolyn Smith MSc BSc (Hons), MCIEEM

*The data contained within the report are accurate to the best of our knowledge and have been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.*

*The report conforms to the British Standard 42020:2013 Biodiversity – Code of practice for planning and development.*

*We confirm that any opinions expressed are our best and professional true opinions. This report has been prepared by an ecology specialist and does not purport to provide legal advice.*

*Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that animals and plants can migration/establish and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.*

# 1 Summary

- 1.1 Glaven Ecology was commissioned to undertake a Preliminary Ecological Appraisal including a Preliminary Roost Assessment (PRA) at Holme House, Sandy Lane, Aylmerton, NR11 8QE. The survey work was completed by Carolyn Smith MSc., BSc. (Hons) MCIEEM on 24<sup>th</sup> February 2022.
- 1.2 Planning is sought to extend the property to the rear and side with internal alterations to the living accommodation.
- 1.3 The property sits within the SSSI Impact Risk Zone for Felbrigg Woods but does not fall into the categories requiring further consultation with Natural England.
- 1.4 The house was assessed as having low potential to support roosting bats and therefore one nocturnal survey is required to determine bat presence/absence within the building.
- 1.5 To comply with national guidelines, surveys should be completed during the optimal survey period (mid-May to August). Two surveyors will be required to ensure adequate coverage of the building during surveys.
- 1.6 There were no other protected species assessed as being on site.
- 1.7 Full mitigation plans for the works cannot be assessed until the further surveys have been undertaken, however further enhancements for the site could include installation of bat access tiles and bird boxes.
- 1.8 Two bat boxes have recently been installed on a mature beech tree on site.

## 2 Introduction

### 2.1 Background

2.1.1 Glaven Ecology was commissioned to undertake a Preliminary Ecological Appraisal including a Preliminary Roost Assessment (PRA) at Holme House, Sandy Lane, Aylmerton, NR11 8QE. The survey work was completed by Carolyn Smith MSc., BSc. (Hons) MCIEEM on 24<sup>th</sup> February 2022.

2.1.2 The survey and report aim to describe how the pavilion supports birds, bats and any other protected species. It assesses potential impacts on these features as a result of the works and advises on the need for further surveys or mitigation strategies.

### 2.2 Site Location and Description

2.2.1 The site was located at OS Grid Reference TG 18440 40753 (Appendix 1 – Site Location) and consisted of a detached house with rendered walls and pantile roof. Internally the house had been stripped back and the roof space was open, although still lined.

2.2.2 The surrounding area was dominated by broadleaved and conifer woodlands associated with Felbrigg Estate, Beacon Hill and Barn Plantation. There were two areas of priority habitat to the north and west: lowland dry acid grassland at Inceborough Hill and lowland heathland at Roman Cap & Beeston Regis Heath.

#### 2.2.3 Project Overview

2.2.4 Planning is sought to extend the property to the rear and side with internal alterations to the living accommodation.

## 3 Legal Protection

3.1.1 The main piece of legislation relating to nature conservation in Great Britain is The Wildlife and Countryside Act 1981 (as amended). This Act is supplemented by provision in The Countryside and Rights of Way (CROW) Act 2000 and The Natural Environment and Rural Communities Act 2006 (in England and Wales). This act provides varying degrees of protection for the listed species of flora and fauna, including comprehensive protection of wild birds and their nests and eggs.

3.1.2 UK wildlife is also protected under The Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. In 2010, these Regulations, together with subsequent amendments, were consolidated into The Conservation of Habitats and Species Regulations 2010.

### 3.2 Birds

3.2.1 All birds, their nests and eggs are protected by law under Part 1 of the Wildlife and Countryside Act 1981 (as amended).

### 3.3 Bats

3.3.1 All bat species are listed under Annex IV (and certain species also under Annex II) of the European Union's Council Directive 92/43/EEC (The Habitats Directive) and are given UK protected status by Schedule 2 of the Conservation of Habitats and Species Regulations 2010. All UK bat species are also protected under The Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended).

3.3.2 This legislation fully protects bats and their breeding sites or resting places, making it an offence to deliberately capture, injure or kill bats, deliberately disturb bats, damage or destroy a bat breeding or resting place.

### 3.4 Statutory Designated Conservation Sites

3.4.1 National designations such as Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR), are afforded statutory protection. SSSIs are notified and protected under the Wildlife and Countryside Act 1981 as amended. SSSIs are notified based on specific criteria, including the general representativeness and rarity of the site and of the species or habitats supported by it.

## 4 Survey Methods

### 4.1 Desk Study

4.1.1 Records held on Magic.gov.uk on Designated Sites and granted European Protected Species Licences were reviewed in March 2022 as was the map of Norfolk County Wildlife Sites on data.gov.uk.

### 4.2 Protected Species Survey

4.2.1 The survey was undertaken by Carolyn Smith MSc, BSc (Hons) MCIEEM (Natural England Level 1 Licence for bats [reference 2018-34461-CLS]) on 24<sup>th</sup> February 2022.

#### *Birds*

4.2.2 On-site habitats were assessed for their potential to support breeding (nesting) birds. This consisted of a methodical search for actual nesting birds or their signs.

#### *Bats*

4.2.3 A Preliminary Roost Assessment was completed on the house. The survey work was completed in accordance with the Bat Conservation Trust's "Bat Surveys for Professional Ecologists" (Collins, 2016). A scoring system was applied to the building using the criteria shown in Table 1.

4.2.4 The house was investigated for evidence of bat use and evaluated for bat roosting potential. The visual search for signs of bats consisted of a slow methodical search both internally and externally for actual roosting bats and their signs:

- Droppings on walls, windowsills and floors can be used to identify species;
- Scratch marks and staining at roosts and exit holes can be used to identify the presence of bats;
- Dense spider webs at a potential roost can often indicate bat absence;
- The presence of butterfly wings may be an indication of bat presence.

Table 1: Assessing the potential suitability of a development site for bats (Collins, 2016)

Suitability	Description of roosting habitats	Description of commuting and foraging habitat
Negligible	Negligible habitat features on site likely to be used by roosting bats	Negligible habitat features onsite likely to be used by commuting or foraging bats
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats</p> <p>A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential</p>	<p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub</p>
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed)	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge

4.2.5 Table 2 shows the criteria used when assessing the likelihood of a protected species being present within the survey area:

Table 2: Criteria considered when assessing the likelihood of occurrence of protected species

Assessment Category	Criteria
Present	Species are confirmed as present from the current survey or historical confirmed records.
High	Habitat and features of high quality for species/species assemblage. Species known to be present in wider landscape. Good quality surrounding habitat and good connectivity.
Moderate	Habitat and features of moderate quality. The site in combination with surrounding land provides all habitat/ecological conditions required by the species/assemblage. Within known national distribution of species and local records in desk study area. Limiting factors to suitability, including small area of suitable habitat, some severance/poor connectivity with wider landscape, poor to moderate habitat suitability in local area.
Low	Habitats within the survey area poor quality or small in size. Few or no records from data search. Despite above, presence cannot be discounted as within national range, all required features/conditions present on site and in surrounding landscape. Limiting factors could include isolation, poor quality landscape, or disturbance.
Negligible	Very limited poor quality habitats and features. No local records from desk study; site on edge of, or outside, national range. Surrounding habitats considered unlikely to support species/species assemblage.

#### 4.1 Survey Limitations

4.1.1 There were no notable limitations to the survey. The whole building was accessible and allowed adequate assessment of the suitability for bats.



## 5 Results

### 5.1 Desk Study

5.1.1 The site sits within Norfolk Coast Area of Outstanding Natural Beauty (AONB).

5.1.2 Two Statutory and five non-Statutory Designated Site were identified within 2km of the site on MAGIC Maps (Table 3, Appendix 2).

5.1.3 The site sits within the SSSI Impact Risk Zone for Felbrigg Woods but does not fall into the categories requiring further consultation with Natural England: Infrastructure such as pipelines and residential developments of over 50 units outside existing settlements.

Table 3: Statutory Designated Sites within 2km of development site

Site and Designation	Site description	Closest point to site
Felbrigg Woods Site of Special Scientific Interest (SSSI)	The Great Wood is one of only two known sites for acid Beech stands in Norfolk and probably represents an outlying native population of Beech <i>Fagus sylvatica</i> at the edge of its range.	240m southeast
Roman Camp and Beeston Regis Heath County Wildlife Site (CWS) – 1147	The Roman Camp and Beeston Regis Heath complex is of considerable conservation, landscape and recreational value. It consists of a variety of habitats including broad-leaved coppice with standards woodland, dry dwarf shrub heath, and unimproved acidic grassland.	580 north
Felbrigg Hall Estate CWS – 1143	This site is mainly coppice with standards woodland, parkland and a lake. Divided into one large area and three smaller areas, these areas are connected by Felbrigg Great Wood SSSI and so form one large continuous area of habitat.	960m south
Abb's Common and Congham Hill CWS - 2233	Abbs Common is a small area of registered common (CL5), composed largely of neutral grassland, but with small areas of impeded drainage and patches of more free-draining, sandy soils.	1200m northeast
West Runton Common – 1149	A variety of habitats including neutral and acidic grassland, mixed tall fen, broad-leaved semi-natural woodland.	1300m north
Briton's Lane Gravel Pit SSSI	This pit provides excellent exposures in the Pleistocene Briton's Lane Gravels of the Cromer Ridge. These deposits, comprising coarse outwash gravels and sands (derived from melting ice) are associated with the Cromer tills of Anglian age.	1600m west
Greens Common CWS - 2234	No citation available	1700m northeast
Incleborough Hill CWS - 1148	Incleborough Hill, situated between East and West Runton, consists of acidic grassland and associated continuous scrub on a substantial hill.	1800m north

5.1.4 There was one record of a granted European Protected Species Mitigation Licence within 2km of the site on MAGIC Maps. This was to allow the damage and destruction of a resting place for common pipistrelle and brown long eared (ref: 2014-4821-EPS-MIT) and was 1900m east of site.

5.1.5 There were no listed great crested newt (GCN) licence returns within 2km of the site and no GCN records within 2km of the site were returned by the NBN Atlas within the last ten years.

5.1.6 There were no ponds within 500m of the site.

## 5.2 Habitats

5.2.1 Much of the site had been cleared of vegetation as the house had been empty for a number of years and the grounds had been very overgrown (as per comms with owner). (Figure 1).

5.2.2 However, there were still mature trees around site boundaries and there were signs of new tree planting across the site, to the west of the house.



*Figure 1: Cleared ground around the house, with mature trees to eastern boundary.*

## 5.3 Protected Species - Bats

### Foraging and Commuting

5.3.1 The habitats immediately around the site were considered to have **moderate** potential to support foraging and commuting bats mainly around boundary trees. The wider environment offered **high** foraging and commuting opportunities along woodland edges.

## Visual inspection

5.3.2 The house detached and two-storeys with rendered walls, a brick base and a pantile roof. (Figures 1 and 2).



Figure 1: Holme House – eastern and southern aspects.



Figure 2: Holme House – northern and eastern aspects.

5.3.3 The majority of the ridge was well sealed but there were gaps on the eastern and southern aspects (Figure 3).

5.3.4 There were raised tiles throughout, although much of the central roof areas were well sealed. The roof above the porch was in worst condition which also had some lifting of the flashing on the left-hand side (see Figure 3).

5.3.5 The eaves had at one point been sealed with mortar, but this was cracked in places with numerous gaps on all aspects.

5.3.6 There was slight lifting of the flashing around the chimney on the eastern aspect but this appeared minimal.

5.3.7 The soffit was well sealed to the wall, but there was one gap where the soffit had rotted on the southern aspect (Figure 4).

5.3.8 The render was in good condition as was the base brickwork.

5.3.9 The window frames, whilst weatherworn, were well sealed with no gaps between them and the walls.

5.3.10 On the western aspect there was a flat roof extension and on the second floor an opening onto the second floor (Figure 5).





Figure 3: Southern aspect – gaps circled.



Figure 4: Gap in otherwise well-sealed soffit



Figure 5: Western aspect.

5.3.11 Internally the house had been stripped back and the ceiling removed from the second floor making the rooms open to the roof space (Figures 6 and 7) and at the time of the survey there was a high level of disturbance from human activity.

5.3.12 The roof structure was partially lined with wood lathe and partially to felt, both were intact (Figure 8).

5.3.13 The beams were all narrow and machine cut with no cracks or gaps.

5.3.14 The lack of ceilings meant that the roof structure was exposed to a lot of daylight from the windows on the second floor.



Figure 6: Holme House – internal view



Figure 7: Holme House – internal view.



Figure 8: Roof linings.

5.3.15 No signs of bats were noted during the survey and no actual bats were observed, but there were some potential roosting sites, such as under tiles and ridge tiles. However, the open nature of the roof space and the high level of disturbance within the house lower the suitability. Therefore, the house is assessed as having **low potential** to support roosting bats.

#### 5.4 Protected Species - Birds

5.4.1 There was no evidence of nesting bird's within the house structure. There was good habitat for nesting birds within boundary trees, but these are to be retained.

5.4.2 No evidence of any other protected species was found during the survey.

## 6 Impact Assessment

6.1.1 Table below summarises the potential impacts of the works:

Table 5: Impact assessment on the ecology of the site

Ecological Factor	Impact Assessment
Designated Sites and Habitats	<p>The site sits within the SSSI Impact Risk Zone for Felbrigg Woods but does not require further consultation with Natural England.</p> <p>No impacts to Designated Sites are envisaged given the scale of the development and distance to the Designated Sites.</p> <p>No other habitats of ecological significance will be impacted by the proposed works.</p>
Bats	<p>At least one nocturnal survey is required on the house to fully assess how the works will impact local bat populations.</p> <p>It is assessed that the project will have no impact on bat commuting routes.</p>
Birds	<p>There was no evidence of birds utilising the house as a nesting site.</p> <p>It is considered that the works will have a negligible impact on local bird populations.</p>

## 7 Recommendations

7.1.1 As good practice, any trenches or holes created during the works must be backfilled at the end of the day or covered overnight to ensure any wildlife passing through the site, such as hedgehogs, do not get trapped.

7.1.2 The following species-specific recommendations are made for the site:

Table 6: Recommendations for further surveys and mitigation

Species	Requirement for Further Surveys and Recommendations
Bats	<p>The house was assessed as having low potential to support roosting bats and therefore one nocturnal survey is required to determine bat presence/absence within the building.</p> <p>To comply with national guidelines, surveys should be completed during the optimal survey period (mid-May to August). Two surveyors will be required to ensure adequate coverage of the building during surveys.</p> <p>Any external lighting planned post works should be of a low light level and use warm white lights at &lt;2700k. This reduces the ultraviolet component or that has high attraction effects on insects which can lead to a reduction in prey availability for some light sensitive bat species.</p>
Birds	No further surveys are required.

## 8 Enhancements

8.1.1 The Local Planning Authority has a legal duty to consider enhancements on proposed development sites. Furthermore, the National Policy Planning Framework (NPPF) requires planning decisions to aim to promote net gains in biodiversity on development sites.

8.1.2 The owner of Holme House is keen to enhance the site for wildlife and took advice during the PRA as to the best place to install two bat boxes. A mature beech tree on the boundary of the garden was chosen and the boxes were installed on the southern and eastern aspects approximately 5m above ground level. The boxes were both 2FN Schwegler boxes which are designed as a summer roosting space.

8.1.3 Full mitigation plans for the works cannot be assessed until the bat activity survey has been undertaken, however further enhancements suggested for the site include:

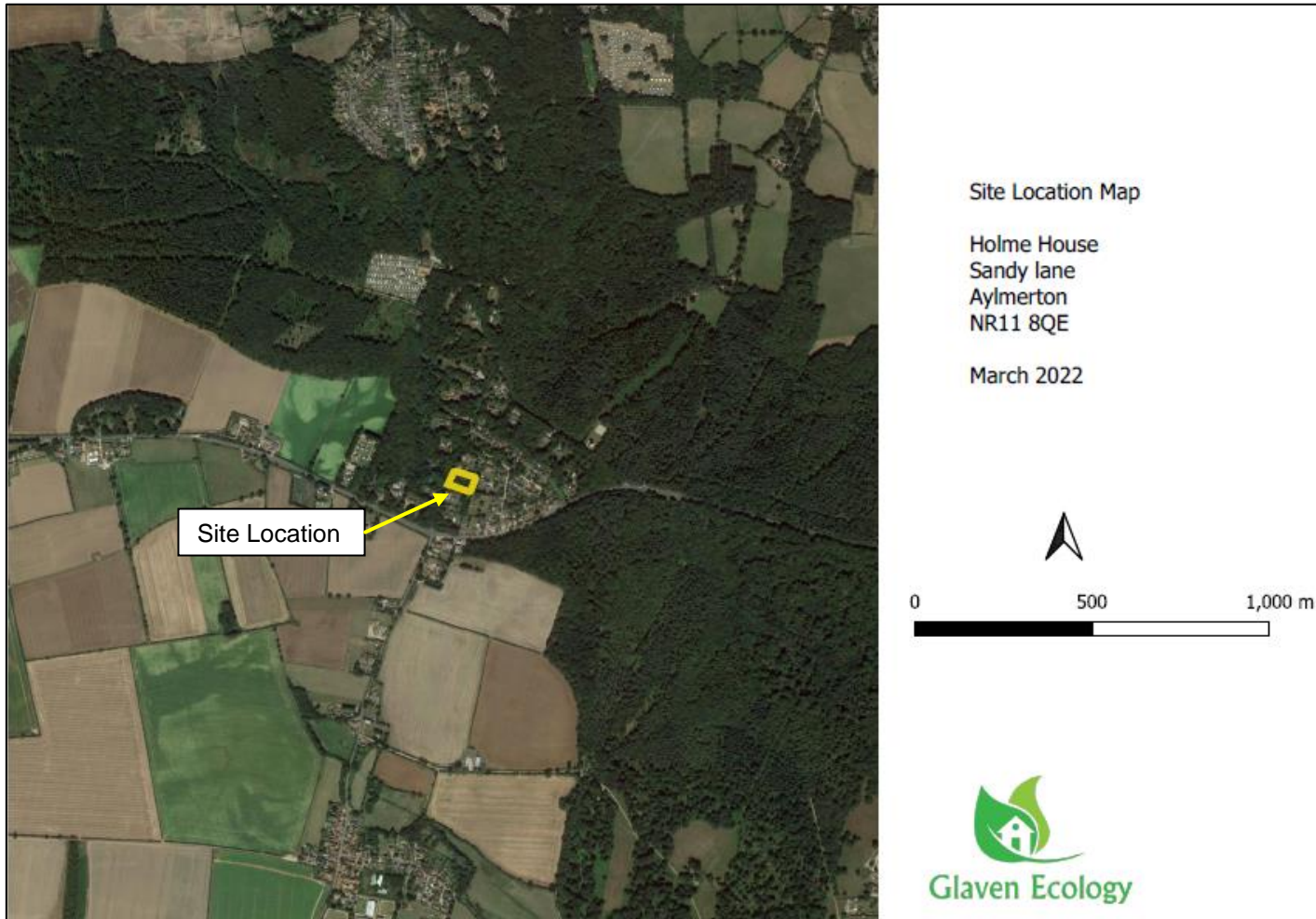
- Two bat access tiles to be installed onto the southern aspect of the roof. Something similar to the [Bat Access Tile Kit](#) would be suitable. Alternatively, two access points can be created within the ridgeline by using a spacer to create gap 20mm x 50mm in size in the mortar under the tiles.
- Two bird boxes to be placed on trees around the boundaries. The [Woodstone nest box](#) and [blackbird nest box](#) would be suitable options.



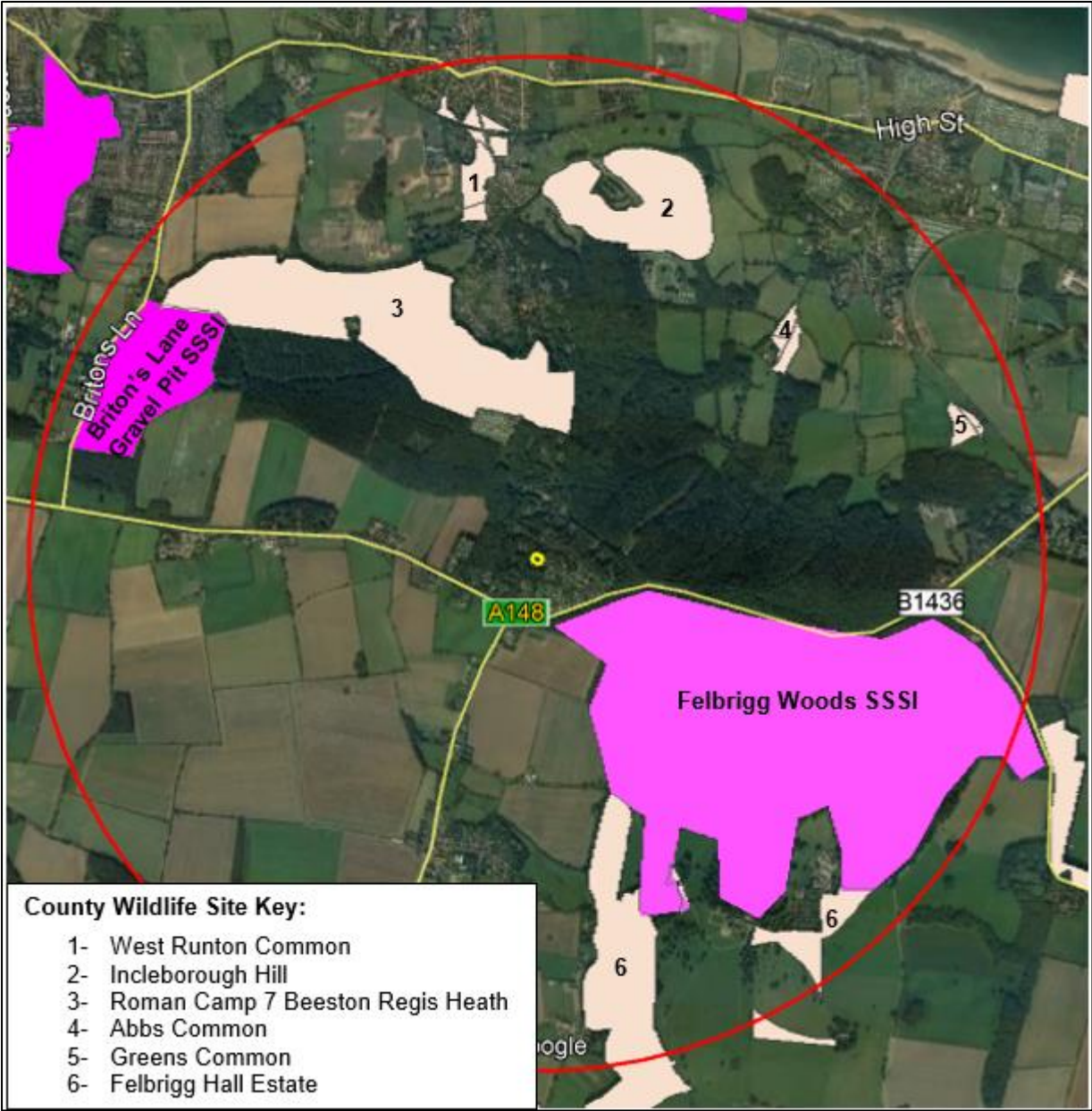
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## Appendix 1 – Site Location



# Appendix 2 – Statutory and Non-Statutory Designated sites



(Image source: Google Earth Pro, 2022)