



HYBRID ECOLOGY LTD
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Preliminary Ecological Appraisal:

Potash Farm, Holbrook, Suffolk

On behalf of:
English Architectural

Prepared by:

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Report version:

Version 1:

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Summary

Potash Farm (the site) was initially visited on 5th April 2023 in response to a proposal for residential development. This report provides the results of an ecological baseline survey and makes recommendations for further detailed species surveys, mitigation and enhancement measures in the context of the proposal, referring to planning policy and best practice guidance where appropriate. The report is required to inform design, and to provide the Local Planning Authority with certainty on impacts to designated sites, Priority Habitats and legally protected species.

Designated sites/Priority Habitats

- No statutory or non-statutory sites would be affected by the development proposal. However, the site is situated within the Zone of Influence (Zoi) for important coastal designations. Therefore, a proportionate financial contribution will need to be secured in line with the Suffolk Coast Recreational Disturbance Avoidance and Mitigation Strategy (Suffolk Coast RAMS). This would be determined/confirmed as part of the planning process with the Local Planning Authority (LPA). Adherence to this agreed strategy will be appropriate mitigation. No Priority Habitats will be lost or impacted.

Legally protected species

- Bats: Evidence of bats was found in several areas of the main barn (B1). Whilst no evidence of a maternity roost was found and the barn is likely to be unsuitable for hibernation, it may be used by small numbers of bats during summer. B1 is assigned high bat roost suitability (BCT, 2016). To establish the species and use, three dusk/dawn surveys are required between May and August inclusive. The surveys are needed in compliance with best practice guidelines so that appropriate mitigation can be designed into the development. All other buildings on site have negligible bat roost suitability – further survey is not required.
- Nesting birds: All buildings are suitable for use by nesting birds. A tawny owl nest is present in B2. Building work should be carried out between October and February, to avoid the nesting season. Compensatory nest provision is required.
- Reptiles: The site should continue to be maintained to discourage colonisation.

Enhancement proposal

The proposal will include native hedgerows and trees. Bat boxes and bird boxes are recommended. Please note that specific measures for bats would be determined following the recommended surveys. These measures could be secured via a Biodiversity Enhancement Layout (or similar) and would contribute to Government aims under Paragraph 174(d) of the National Planning Policy Framework 2021 and Local Plan policies which encourage all development to demonstrate biodiversity net-gain.

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1.0 Introduction

Personnel

- 1.1 This report has been prepared by Gemma Holmes; Consultant Ecologist at Hybrid Ecology Ltd. Gemma is a qualified ecologist with 16 years' experience in professional survey work and is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Gemma holds licences to survey for great crested newt and bats in the UK (Licence numbers 2015-19096-CLS-CLS and 2016-27305-CLS-CLS respectively).

Brief

- 1.2 English Architectural instructed Hybrid Ecology to produce a Preliminary Ecological Appraisal/Low Impact EclA for Potash Farm, Holbrook, Suffolk (central grid reference: TM 16733 37760). It is understood that buildings are proposed for conversion to residential., some will be demolished The site location is provided in Figure 1 and survey boundary is in Figure 2.

Aims

- 1.3 This report aims to advise the client/developer and relevant members of the project team as to the key ecological constraints and opportunities associated with this project and any necessary mitigation requirements to ensure legal obligations in respect of protected species, designated sites and habitats are met.

Limitations

- 1.4 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. Wildlife is transient and mobile, and results of a survey can reasonably vary from one day to the next or across the seasons.
- 1.5 The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat. However, it should not be taken as providing a full and definitive survey of any protected species/group.
- 1.6 Biological records can be patchy, and some areas/species are under recorded, therefore absence of records for a species or group does not necessarily mean that there is a lack of ecological interest. Equally, the presence of records does not necessarily mean the habitat is still suitable for the species/group in question.
- 1.7 This report is valid for 18 months. Beyond this, this report should not be accepted in support of a planning application nor relied upon in any capacity.

Figure 1. Location plan



Figure 2. Survey boundary (approximate)



2.0 Planning Policy and Legislation

National Planning Policy Framework (2021): Conserving and Enhancing the Natural Environment

Please note the below policies have been taken directly from the National Planning Policy Framework, which can be found here: [National Planning Policy Framework - GOV.UK \(www.gov.uk\)](https://www.gov.uk/national-planning-policy-framework)

Paragraph 174

2.1 Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) Maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;

Paragraph 179

2.2 To protect and enhance biodiversity and geodiversity, plans should:

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

Paragraph 180

2.3 When determining planning applications, local planning authorities should apply the following principles:

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

Paragraph 181

2.4 The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;
- b) listed or proposed Ramsar sites; and
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

Paragraph 182

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

Legislation: Protection of Designated Sites, Habitats and Species

Please note this section is a summary of legislation only and should not be taken as a definitive interpretation of any wildlife law. UK wildlife legislation can be found here: [Legislation.gov.uk](https://www.legislation.gov.uk)

Designated sites

RAMSAR

- 2.6 Ramsar sites are designated under the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Wetlands are designated, protected and promoted in order to stem the progressive encroachment on and loss of wetlands, which are broadly defined to include marsh, fen, peatland and water.

Special Areas of Conservation (SAC)

- 2.7 Special Areas of Conservation are sites designated by Member States under the EC Habitats Directive. The aim is to establish a network of important high quality conservation sites that will make a significant contribution to conserving habitats and species considered to be most in need of conservation at an international level.

Special Protection Areas (SPA)

- 2.8 Special Protection Areas are designated under the EC Birds Directive, to conserve the habitat of certain rare or vulnerable birds and regularly occurring migratory birds. Any significant pollution or disturbance to or deterioration of these sites has to be avoided.

National Nature Reserves (NNR)

- 2.9 National Nature Reserves are statutory reserves established for the nation under the Wildlife and Countryside Act, 1981. NNRs may be owned by relevant national body (e.g. Natural England in England) or established by agreement; a few are owned and managed by non-statutory bodies. NNRs cover a selection of the most important sites for nature conservation in the UK.

Sites of Special Scientific Interest (SSSI)

- 2.10 Sites of Special Scientific Interest are areas notified under the Wildlife and Countryside Act, 1981, as being of 'special interest for nature conservation'. They represent the finest sites for wildlife and natural features in Great Britain supporting many characteristic, rare and endangered species, habitats and natural features. Notification as a SSSI is primarily a legal mechanism organised by Natural England and selected according to specific criteria.

Local Nature Reserves (LNR)

- 2.11 Land owned, leased or managed by Local Authorities and designated under the National Parks and Access to the Countryside Act. A site of some nature conservation value managed for educational objectives – no need for SSSI status. Some reserves are managed by a non-statutory body.

Local Wildlife Site / Wildlife Sites

- 2.12 Local Wildlife Sites (LoWS) are non-statutory sites designated at a county level as being of conservation importance and often recognised in Local authority development plans. The aim of this identification is to protect such sites from land management changes, which may lessen their nature conservation interest, and to encourage sensitive management to maintain and enhance their importance. Although LoWSs have no statutory protection they are a material consideration in the planning process.

Regionally Important Geological / Geomorphological Site (RIGS)

- 2.13 Regionally Important Geological/Geomorphological Sites are non-statutory earth science sites. The RIGS networks are locally based voluntary groups drawing on both professional and interest groups identifying sites using a methodical and rational approach. RIGS are analogous to non-statutory biological sites – they are not a second tier but sites of regional or local importance in their own right.

Legally protected species

- 2.14 The Conservation of Habitats and Species Regulations (2019, EU Exit) affords protection to various species/species groups including bats (all species), great crested newt, otter and dormouse.
- 2.15 The Wildlife and Countryside Act 1981 (as amended) is the main source of legal protection for wildlife in England and was strengthened by the Countryside and Rights of Way Act 2000. Species protection is provided under Schedules 1, 5, 6 and 8 to species including bat, great crested newt, water vole, otter and nesting birds. Badgers are protected separately under the Protection of Badgers Act (1992).

Species and Habitats of Principal Importance in England (or Priority habitats/species)

- 2.16 The Natural Environment and Rural Communities Act (2006) places a duty on Local Planning Authorities to conserve and enhance certain habitats and species. The species that have been designated to be of “principal importance for the purpose of conserving biodiversity” are those that are most threatened, in greatest decline, or where the UK holds a significant proportion of the world’s total population. They mainly derive from lists originally drawn up for the UK Biodiversity Action Plan (UK BAP). Similarly, the list of habitats of principal importance in England also derive from the UK Biodiversity Action Plan.

3.0 Methodology: Desktop Study

Mapping exercise

- 3.1 Aerial imagery (Google Earth Pro, 2021) was used to examine the landscape context of the site in relation to significant ecological assets such as woodland, established hedgerows, grassland and any naturalised features that would allow wildlife use and dispersal.
- 3.2 Multi-Agency Geographical Information for the Countryside (MAGIC) and Suffolk Biological Information Service (SBIS) mapping was used to:
- Determine the proximity to international, national and locally designated sites and whether the site lies within the Zone of Influence/Impact Risk Zone, as appropriate.
 - Determine whether any financial contribution is required in compliance with the Suffolk Coast RAMS.
 - Identify any areas of land mapped by Natural England as Priority Habitat within 250 metres of the site.
 - Identify any European Protected Species (EPS) mitigation licenses granted by Natural England for great crested newt or bats within a 5km radius of the site that could be relevant to this development.

Biological Records Search

- 3.3 A data search was ordered from SBIS in May 2023 to inform this assessment. This included all designated sites, Priority Habitats and legally protected/priority species within 2km.

4.0 Methodology: Habitats and Species

Phase 1 Habitat Survey

4.1 An ecological walkover survey was carried out on 5th April 2023 by ecologist Gemma Holmes (BSc Hons ACIEEM). The survey included all land shown in Figure 2. The survey was undertaken broadly in accordance with the Handbook for Phase 1 Habitat Survey (JNCC 2010).

Protected/priority species scoping

4.2 The survey also included an assessment of the site’s potential to support any legally protected species; or Species and Habitats of Principal Importance, as identified by Section 41 of the Natural Environment and Rural Communities Act (2006). Where best practice guidelines exist, these have been used to assess the likelihood that individual species will be present, for example Bat Surveys: Good Practice Guidelines (BCT 2016) and Habitat Suitability Index for Great Crested Newt (Oldham et al, 2000).

4.3 In accordance with BCT, 2016, buildings and trees on site were subject to Preliminary Roost Assessment for bats. In buildings, this involved an inspection using a high-powered Clu-lite torch to identify any suitable roosting locations (voids/crevices) and to identify any field signs indicating use by bats – which might include droppings, feeding remains, stained timbers or urine splashes. Trees on/bordering the site were also assessed for bat roost suitability, which involved a ground-level inspection to establish any cavity that could reasonably support a bat roost (woodpecker holes, flaking bark, open wounds). Buildings and trees were assigned a “bat roost suitability” based on features/evidence found, in accordance with Figure 3.

Figure 3. Guidelines for assessing potential suitability of development sites for bats (BCT, 2016)

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	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 ^a and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation ^b). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. ^c	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. 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.
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 ^a 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. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
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 ^a 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. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

The Mitigation Hierarchy

4.4 All development is expected to meet the highest planning standards and follow the Mitigation Hierarchy of avoid, mitigate, compensate and enhance to ensure that significant natural environment impacts are avoided.

- Avoid - Avoiding any loss or damage to wildlife sites or to protected/Priority species – development must not damage or destroy important national and Local Wildlife Sites.
- Mitigate - Impacts considered unavoidable should be mitigated at the site where the impact occurs wherever possible.
- Compensate - Any remaining significant biodiversity loss should be compensated for, as close to the area of loss as possible.
- Enhance - Biodiversity net-gain is now required under national and some local planning policies. Development should strive for 10% net-gain or more where plans require it. Where this is not a requirement in an area, ecologists are required to demonstrate that the development can improve habitats for protected and Priority Species. New development must work with as much existing habitat as possible. For example, retaining existing woods, copses, hedges and streams as integral parts of new developments, and enhancing and managing them.

Evaluation criteria

4.5 Features (designated sites, habitats, and species) were evaluated where possible in relation to a geographical context (i.e. International, National, Regional, Metropolitan, County, District, Borough, Local and Site), in accordance with CIEEM Ecological Impact Assessment Guidelines (2016). Criteria include designations, quality of habitat in relation to the site context, ability to support notable assemblages of species, contribution to habitat connectivity, dispersal opportunities or providing intrinsic ecological value.

5.0 Results: Desktop Study

Landscape context

- 5.1 Potash Farm is situated in a rural location approximately 1.2km north of Holbrook in Suffolk. The River Orwell is approximately 2.2km to the north-east. The site is completely surrounded by arable land. There are scattered trees along arable margins but habitat connectivity is otherwise poor.

Designated sites and Priority Habitats

- 5.2 The site is not the subject of a conservation designation and is not bordered by any designated land – see Appendix 1.
- 5.3 The Stour and Orwell Estuary is approximately 2.3km to the north-east of the site. This site is designated as an SPA, Ramsar and SSSI for its internationally significant habitats and species assemblages, including breeding and over-wintering birds. The Natural England citation reads:
- “The Stour Estuary is nationally important for 13 species of wintering waterfowl and three species on autumn passage. The estuary is also of national importance for coastal saltmarsh, sheltered muddy shores, two scarce marine invertebrates and a vascular scarce plant assemblage. The Stour Estuary includes three nationally important geological sites.”
- 5.4 The site is within the Zone of Influence (Zoi) - the area where increased residential development will result in likely significant effects on the Stour and Orwell Estuaries. Increased recreation without mitigation would result in the significant features of this site being degraded, or lost, and these internationally important areas losing their birds and habitat, (and therefore their designations), and the Suffolk coast losing significant important areas for birds, plants and wildlife generally. As the proposal involves residential development, there is a risk of increased recreational pressures and therefore the development will be required to provide a financial contribution in compliance with the Suffolk Coast RAMS. This will be secured via legal agreement on receipt of planning consent.
- 5.5 The site is approximately 1km to the south-east of Freston and Cutler's Woods with Holbrook Park SSSI. MAGIC states that residential development of “50 units or more” need to be screened for potential impacts, as this development does not exceed this threshold, mitigation over and above standard construction pollution prevention is not deemed to be necessary.
- 5.6 The closest Priority Habitat is a small woodland approximately 400 metres to the west, this will not be impacted.

EPS licences

- 5.7 The closest EPS licence is from a site in Woolverstone, approximately 1.4km to the north-east. Details are provided below.
- 5.8 This EPS licence relates to multiple bat species, including barbastelle and Natterer's bats. Given the close proximity, this could be relevant to this development, although habitat connectivity is relatively poor.

Site Check Results	
Site Check Report Report generated on Thu Sep 14 2023	
You selected the location: Centroid Grid Ref: TM17793870	
The following features have been found in your search area:	
Granted European Protected Species Applications (England)	
Case reference of granted application	2018-33889-EPS-MIT
Species group to which licence relates	Bat
Species on the licence	BARB,BLE,C-PIP,NATT,S-PIP
Site county of licence	Suffolk
Licence Start Date	03/05/2018
Licence End Date	30/04/2028
Does licence impact on a breeding site	N
Does licence allow damage of breeding site	N
Does licence allow damage of a resting place	Y
Does licence allow destruction of breeding site	N
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown

6.0 Results: Phase 1 Habitat Survey

A building plan is provided in Figure 4. Photographs from the site visit are provided in Figure 5. For full details on legally protected species, please refer to Section 7. Latin names appear in the text once.

Summary: The site is entered on the north-eastern corner and contains several barns, amenity lawn and hard standing and is bordered by hedgerows and trees.

Buildings

B1: Threshing barn, cart-lodge and recent additions

- 6.1 The historic timber-framed threshing barn is damaged to the east, and half of the roof has been lost. The southern aspect is covered with dense hawthorn and bramble scrub. The remaining roof is covered by peg tiles. Dense ivy covers most of the roof on the northern aspect. The interior is exposed to prevailing weather (wind, rain) but some dark sheltered areas remain, including the mezzanine loft and a small room to the south. Scattered bat droppings were identified on the mezzanine level, stairs and in the adjoining room. The barn joins onto smaller single-storey rooms, that are more recent with asbestos roofs, extending to the west. There are gaps between partitions for wildlife to disperse through from the single storey areas into the main barn. To the east is a small barn used for storing logs, which is open to the east. There are various crevices and voids within these buildings that bats could reasonably roost inside. To the south is a modern agricultural barn with steel frame and asbestos roof.

B2: Agricultural building

- 6.2 This agricultural building has blockwork walls and a pitched felt roof. The building is disused but appears to have historically been used for storing hay and straw. There is a large nest indicative of tawny owl on the eastern aspect and scattered small pellets close to the nest. All windows are broken, and the building is very exposed to prevailing weather throughout. No bat evidence was noted.

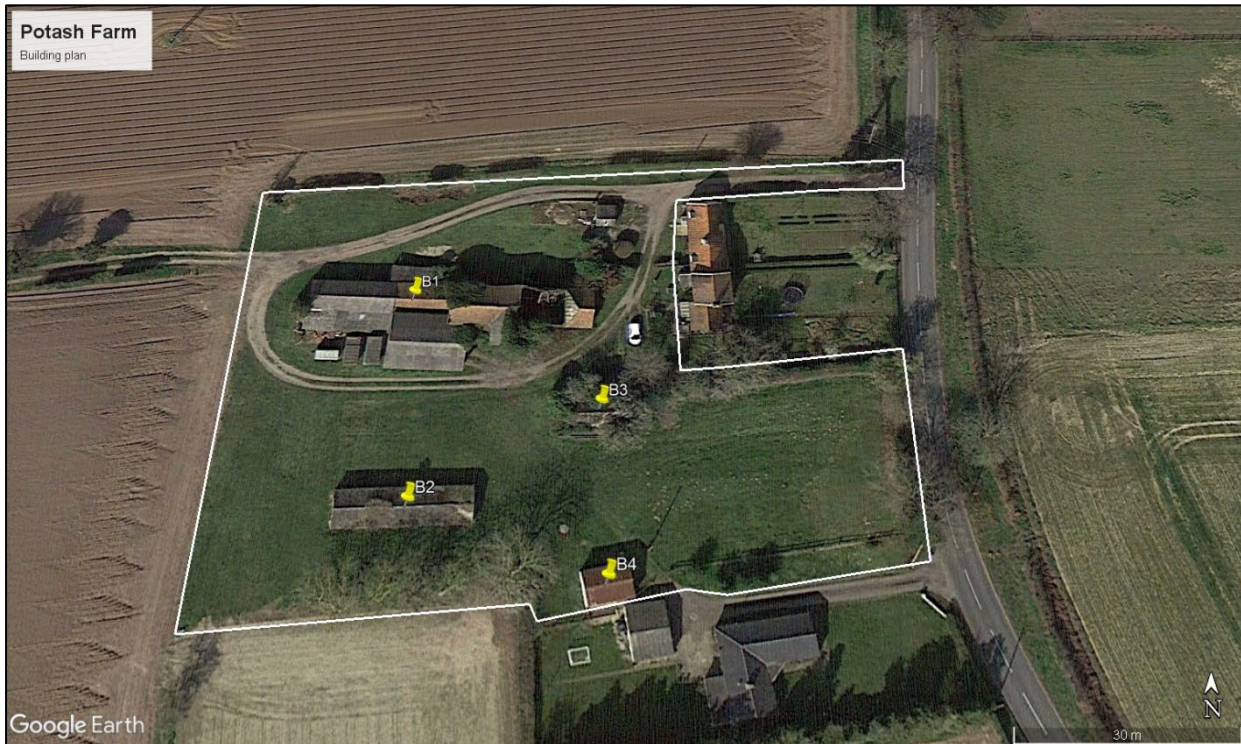
B3: Agricultural building

- 6.3 This building is completely covered by ivy, other than a small opening on the western aspect. The building has a timber frame and pitched asbestos roof. There are broken windows on the northern, eastern and southern aspect and a broken timber door to the west. No bat evidence was noted.

B4: Garage

- 6.4 The garage has rendered walls and a pitched tin roof. There is weatherboard cladding to the north and south. There are broken windows to the north and gaps in the walls. Double timber doors exist to the east. There are gaps at eaves level. No bat evidence was noted.

Figure 4. Building plan



Amenity lawn

6.5 The site is dominated by amenity lawn which is well maintained and tidy. Observable species include black horehound *Ballota nigra*, daffodil, alexanders *Smyrniololus atratum*, yarrow *Achillea millefolium*, dandelion *Taraxacum officinale*, groundsel *Senecio vulgaris*, daisy *Bellis perennis*, common nettle *Urtica dioica*, common mouse ear *Cerastium fontanum*, ribwort plantain *Plantago lanceolata*, white clover *Trifolium repens* and mallow *Malva sp.*

Hedgerows

6.6 There are defunct hawthorn/blackthorn *Crataegus monogyna/Prunus spinosa* hedgerows along the northern aspect. To the south-east of the site is an unmanaged prunus hedgerow with oak *Quercus robur* and holly *Ilex aquifolium* trees. There is an ivy hedgerow with various trees (walnut *Juglans regia*, holly, prunus) overhanging from the domestic garden to the east of the site.

Trees

6.7 There is a row of mature walnut trees to the south. There are mature oak trees lining the northern aspect of the driveway and there is a prominent oak tree to the immediate south of the access. All oak trees on and bordering the site should be retained and protected in accordance with arboricultural best practice. There are various small self-seeded trees around B1 including fig, holly and hawthorn.

Habitats evaluation: The site contains habitats that are common and widespread. The habitats on site are considered to be significant at Site Level only. Further bat surveys – as recommended in the following section are required to establish required mitigation. Nesting birds will be protected through appropriate timing of works. All retained trees are to be protected in accordance with arboricultural best practice.

Figure 5. Photographs



a) B1, northern aspect.



b) B1, mezzanine level.



c) B1, bat dropping found on stairs.



d) Western aspect of B2.



e) Large tawny owl nest in B2.



f) B3, covered in ivy.



g) B4 (garage).



h) Walnut trees on southern boundary, to be retained.



i) Taken from eastern boundary – showing maintained nature of grassland.

7.0 Results: Protected/Priority Species Scoping

This section includes the results of the scoping assessment carried out during the survey and provides data records, habitat requirements for species/species groups and assessment.

Bats

Data records:

- 7.1 Several bat species have been recorded within a 2km radius. They included Daubentons, Natterer's, Nathusius's pipistrelle, soprano pipistrelle, common pipistrelle, serotine, brown long-eared bat and barbastelle.

Habitat requirements:

- 7.2 Bats roost in buildings, trees and underground sites. Buildings with large, uncluttered loft voids, external crevices and missing roof tiles are often suitable, particularly when a building is close to a foraging resource – e.g. woodland or water. Trees with cavities, woodpecker holes, hazard beams and flaking bark are also suitable for roosting.

Assessment: Roosting

- 7.3 B1 contains various void and crevice roosting opportunities in and around the timber frame and under roof tiles. Bat droppings were identified in several locations in the open section to the east. The threshing barn and adjoining rooms are suitable for crevice and void-dwelling species, including barbastelle. There was no evidence to suggest the building supports a maternity roost (e.g. large accumulations of droppings) and the temperatures inside are unlikely to be conducive to hibernating bats over the winter months.
- 7.4 B1 is expected to support small numbers of bat species over the summer months. To identify the species and status of any roost, and to ensure the development delivers appropriate mitigation, further surveys are required. The BCT Guidelines (2016) suggest that for a building with high bat roost suitability (i.e. a structure with several potential roosting opportunities) three surveys (at dusk or dawn) should be undertaken between May and August inclusive. We recommend a team of four surveyors with professional grade bat detectors and thermal/IR camera to provide sufficient coverage and gather robust data.
- 7.5 B2, B3 and B4 have negligible bat roost suitability – no evidence was found and there is no reason to conduct further surveys.
- 7.6 There are no trees on/bordering the site with potential roost features.

Assessment: Foraging/commuting

- 7.7 The site provides limited foraging opportunities, and it is quite isolated in the landscape with limited onward commuting habitat.

7.8 It is unlikely that small scale development in this location would result in this behaviour decreasing. Nonetheless, it is recommended that lighting is kept to a minimum to ensure this behaviour is maintained.

Recommendations

Further survey requirement	B1 requires three dusk/dawn surveys.
Avoidance	None
Mitigation	Specific mitigation relating to roosting bats will be established on completion of surveys. As is general best practice, any lighting required for this development will be minimal, only directed to where it is needed, ideally on timbers and will comply with Bats and Artificial Lighting (2018) Guidelines.
Compensation	To be determined following surveys.
Enhancement	There is scope to provide bat boxes as required – see Section 8.

Great crested newt

Data records:

7.9 There are no great crested newt records within 2km of the site.

Habitat requirements:

7.10 Great crested newt (GCN) requires both terrestrial and aquatic habitats. They return to aquatic habitat to breed March-June, using small to medium ponds with no fish and suitable marginal vegetation including watercress and float grass (Froglife 2001). Terrestrial habitat includes refuges and foraging and dispersal opportunities as well as hibernation sites such as rubble piles or mammal burrows. It is rare to find GCN over 250 metres from a breeding pond (Cresswell & Whitworth 2004).

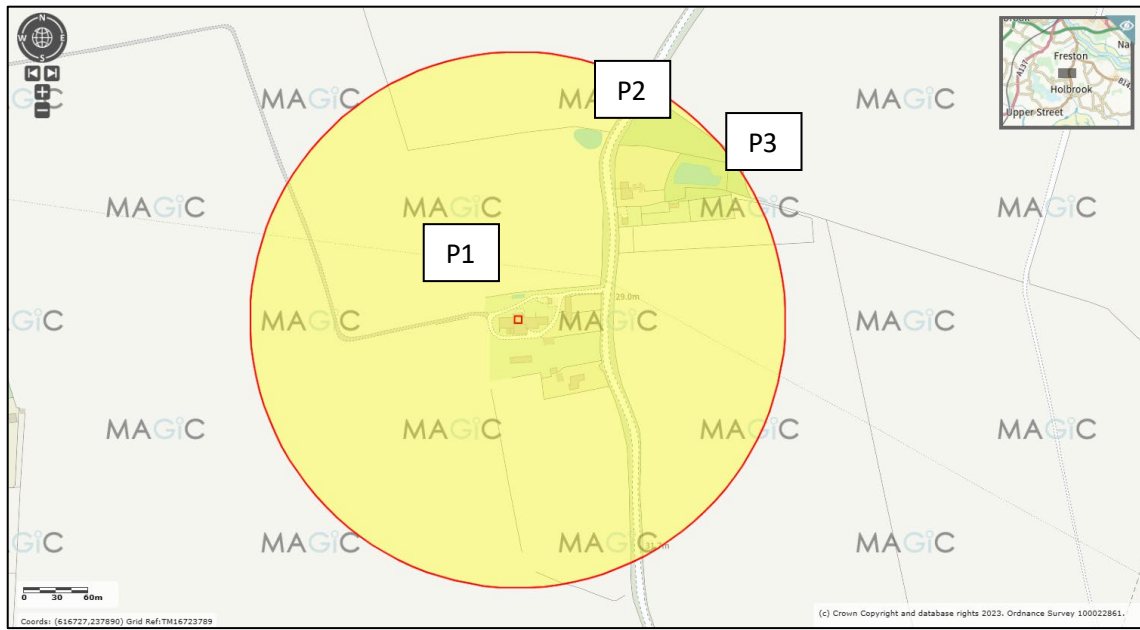
Assessment:

7.11 No ponds or water bodies would be lost to the proposal. All ponds within 250 metres are shown on Figure 6.

7.12 The pond shown to the north of the site (P1) was dry at the time of the survey. P2 is situated 130 metres to the north-east beyond arable land and was covered by impenetrable scrub. P3 is situated on private land beyond the B1080 in a domestic garden.

7.13 The site’s habitats offer limited opportunities for terrestrial great crested newt. All lawn areas are regularly mown and kept tidy with no available refuges that could be used for shelter or for hibernation. Boundary vegetation is sporadic and again offers limited opportunities for foraging/shelter.

Figure 6. Ponds within 250 metres



P1 – dry.



Recommendations

Further survey requirement	None
Avoidance	Maintain mowing regime.
Mitigation	In the unlikely event that great crested newt is encountered at any stage, work must cease and ecological advice immediately sought.
Compensation	None
Enhancement	None

Dormouse

Data records:

7.14 No dormouse records were returned.

Habitat requirements:

7.15 The hazel dormouse requires wooded habitats, usually semi-natural woodland containing hazel coppice and oak, and a rich understorey cover through which to disperse safely between trees (English Nature 2006).

Assessment:

7.16 The site's vegetation is unsuitable for dormouse. There are no species-rich hedgerows, nor continuous bramble scrub and there is no direct connectivity into ancient woodland. Therefore, dormouse is highly unlikely to be present and affected.

Recommendations

Further survey requirement	None
Avoidance	None
Mitigation	None
Compensation/enhancement	None

Reptiles

Data records:

7.17 Grass snake and common lizard have been recorded within 2km.

Habitat requirements:

7.18 Reptiles (common lizard, slow worm, grass snake and adder) require mosaic habitats with features in which to bask, forage and shelter. These habitats need to have onward connectivity for dispersal. Suitable habitats include grassland with scrub edges or small woodland coppices (Edgar et al. 2010).

Assessment:

7.19 The proposed application area comprises existing buildings, maintained lawn and hardstanding, situated in a wider managed arable environment. The whole site is tidy and maintained.

7.20 The proposed application area does not provide potentially suitable reptile habitat and is effectively isolated from connectivity links to potential habitat, other than the cottage gardens to the east.

Recommendations

Further survey requirement	None
Avoidance	Continue lawn maintenance until development commences.
Mitigation	None
Compensation	None
Enhancement	None

Birds

Habitat requirements:

7.21 Nesting birds use buildings, scrub and trees between March and August inclusive (note some species including pigeon will nest all year round).

Assessment:

7.22 No evidence of barn owl was identified in any of the buildings. A tawny owl nest was identified in B2, with nesting material and pellets. B1 is occasionally used by tawny owl as a feeding perch. There are numerous opportunities for small birds to use all buildings for nesting.

7.23 No trees would be lost to the proposal and nesting opportunities afforded by the wider site would be maintained.

7.24 As general guidance prior to future works/maintenance, the bird breeding season is from March to September. If works to buildings are proposed during the season, a check should be made for nests prior to works commencing. If nests are present, they should be left intact and undisturbed until the young have fledged. Compensatory nest provision is required for tawny owl.

Recommendations

Further survey requirement	None
Avoidance	Building works will be carried out between October – February inclusive when nesting birds are absent.
Mitigation	If the above is not practical, an ecologist will carry out a nest check immediately prior. Any active nests will be left undisturbed until the young have fledged.
Compensation	Nest provision for tawny owl and generalist species will be included in the development.
Enhancement	There is scope to provide additional bird boxes for other species – see Section 8.

Otter and water vole

Data records:

7.25 Both species have been recorded within 2km.

Habitat requirements:

7.26 Both species require flowing water, deep enough to support foraging behaviour and with connectivity into the wider landscape.

Assessment:

7.27 There is no suitable habitat on or adjacent to the site.

Recommendations

Further survey requirement	None
Avoidance	None
Mitigation	None
Compensation	None
Enhancement	None

Legally protected plants/invertebrates

Assessment:

7.28 The site contains common, widespread habitats that are typical of similar environments locally. Such habitats are unlikely to support notable plants or insects.

Recommendations

Further survey requirement	None
Avoidance	None
Mitigation	None
Compensation	None
Enhancement	The proposal will incorporate landscaping, which will include native, wildlife friendly species. See Section 8.

Badger

Data records:

7.29 Confidential – available on request.

Habitat requirements:

7.30 Badger is a widespread, common mammal and is legally protected due to persecution rather than rarity or conservation significance. European badger requires habitats in which to build their setts and in which to forage. Badgers preferentially choose sloping banks (road verges, railway embankments, woodlands) with easy-dig substrate for sett building where foraging habitat is available.

Assessment:

7.31 No badger setts, or any other signs alluding to use of the site by badger were identified on the site and there was no evidence that badger use the site for dispersal.

Recommendations

Mitigation	<p>To protect any mammals that might disperse across the site at night, the following measures are recommended during construction:</p> <ul style="list-style-type: none">• Any trenches or deep pits that are to be left open overnight should be provided with a means of escape should a badger enter. This could simply be in the form of a roughened plank of wood in the trench as a ramp to the surface.• Any trenches/pits should be inspected each morning before work commences to ensure no badgers have become trapped overnight. Should a badger be found then formal ecological advice must be sought before work commences for the day.• The storage of topsoil or other 'soft' building materials within the site should be given careful consideration. Badgers will readily adopt such mounds as setts, which would then be afforded the same protection as established setts. So as to avoid the adoption of any mounds, they should be subject to daily inspections before work commences.• During the work, the storage of any chemicals should be contained in such a way that they cannot be accessed or knocked over by any roaming badgers.• Open pipework with a diameter of more than 120mm should be properly covered at the end of the work day to prevent badgers entering and becoming trapped. Again, should a badger trap itself then formal ecological advice must be sought before work commences for the day.
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8.0 Ecological Constraints and Opportunities

Habitats:

Trees

- 8.1 Retained trees and hedgerows will be retained in accordance with arboricultural best practice – this will include placement of Heras fencing along the drip line of canopies as a minimum.

Legally protected species:

Bats

- 8.2 B1 has high bat roost suitability and requires three surveys, carried out between May and August inclusive at dusk or dawn and in compliance with BCT (2016) Guidelines. The surveys will establish species and the nature of roost(s) so that appropriate mitigation can be designed into the development, which might involve bat boxes, integrated bat roost features or a bat loft.

Nesting birds

- 8.3 All nesting birds receive basic legal protection from killing and injury. A tawny owl nest was identified in B2 and there are opportunities throughout all buildings on site for nesting. Building work will be carried out between October and February inclusive unless a check for active nests has been completed by an ecologist immediately beforehand and the habitat in question deemed clear of inactive nests. The same rule applies to vegetation removal/management. Any active nests (e.g. supporting eggs, chicks or young) found must be left undisturbed with an appropriate buffer zone until the young have fledged.

Opportunities

- 8.4 Biodiversity net-gain is now mandatory under Paragraph 174(d) of the National Planning Policy Framework (2021) and is increasingly required in Local Plan policies. The proposal will include landscaping.
- 8.5 In addition, the following recommendations are reasonable and proportionate and would contribute to biodiversity gain, they could be secured via a Biodiversity Enhancement Layout or similar:
- Tawny owl nest box;
 - 2x integral bird boxes per building;
 - 2x integral bat boxes/bat tiles per building;
 - 4x sparrow terraces;
 - 2x Greenwoods tree mounted bat boxes;
 - 2x tree mounted bird boxes.

Please note that the requirement for bat boxes/features will be determined following the recommended surveys. At a minimum, each converted building should include 1 box or feature. Bat boxes/features should be installed above 2 metres and face south, south-east or south-west and close to established vegetation for maximum chance of occupation. See Appendix 2 for habitat box recommendations.

9.0 Conclusions

- 9.1 Hybrid Ecology was instructed to carry out an ecological assessment at Potash Farm in relation to a proposed residential development. A mapping exercise was undertaken to determine constraints relating to designated sites and Priority Habitats. A survey was carried out in April 2023 to map habitats and identify any potential for/evidence of legally protected species. The survey also identified opportunities for ecological enhancement.
- 9.2 The site contains limited habitats that are common and widespread. B1 has high bat roost suitability and requires three surveys in compliance with BCT Guidelines. Surveys are required to understand the species, access points and to characterise roosts such that sufficient mitigation can be designed into the development. Evidence of nesting birds was found in several buildings, mitigation measures in this report will be implemented and compensatory nest provision will be incorporated.

Enhancement opportunities

- 9.3 The development will include native wildlife friendly planting and there is scope to incorporate habitat boxes for nesting birds and bats into the design. These measures will contribute to biodiversity net-gain in accordance with Paragraph 174(d) of the NPPF (2021) and Local Plan policies. These measures could be secured by condition via a Biodiversity Enhancement Strategy or similar.

References

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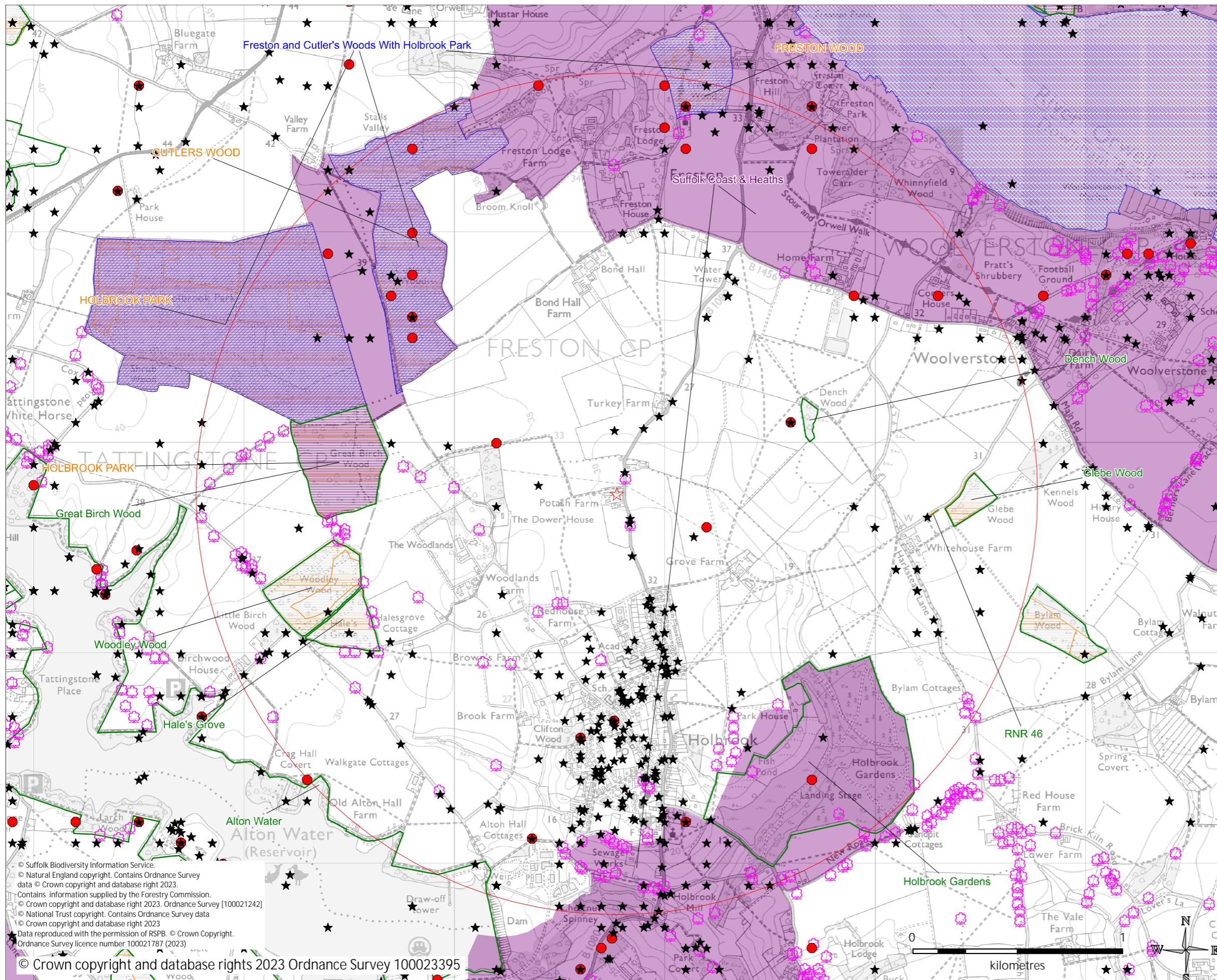
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Appendix 1. SBIS mapping

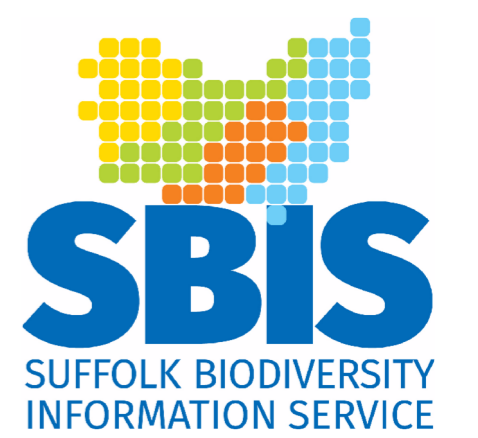


- Data Enquiry**
- ☆ Search Point
 - Search Area
- Protected, Locally Scarce and Rare Species**
- ★ Record Locations (for grids of 6 fig. or greater)
- Schedule 9 Species**
- Record Locations (for grids of 6 fig. or greater)
- Ancient/Veteran/Notable Trees**
- 🌳
- Roadside Nature Reserve**
- ▭
- County Wildlife Sites**
- ▭
- County GeoSites**
- ▭
- SSSI**
- ▨
- LNR**
- ▨
- SPA**
- ▨
- SAC**
- ▭
- RAMSAR**
- ▭
- NNR**
- ▨
- SWT Reserve**
- ▭
- Ancient Woodland Inventory**
- ▨
- Other Public or Conservation Ownership/Management**
- ▨ Forestry Commission, National Trust (public access), RSPB (public access)
- National Park**
- ▭ The Broads
- AONB**
- ▭ Suffolk Coast and Heaths or Dedham Vale

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Hybrid Ecology (Potash Farm TM16773 37759) 2km Data Enquiry



Date: 18/09/2023 | Drawn by: Andy Mercer

Appendix 2. Recommended habitat features



Tawny owl nest box



Sparrow terrace (<http://www.wildlifeservices.co.uk/nestboxes/sparrowterrace.jpg>)



Open fronted nest box (<https://www.nhbs.com/vivara-pro-barcelona-woodstone-open-nest-box>)



Integrated Eco Bat Box for buildings – [Integrated Eco Bat Box | NHBS Practical Conservation Equipment](#)



Schwegler 1FR Bat Tube, to be integrated into building wall, and either bricked in or rendered. Self-cleaning. Dimensions: 47.5 x 20 x 12cm.



Beauman's bat box for gable ends