

Preliminary Ecological Appraisal

of

The proposed viewing mound at Buxhall Vale,
Buxhall, Suffolk

Carried out for:

Robert Stewart

c/o

Last and Tricker Partnership

1st

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1. Background to Commission

- 1.1 Abrehart Ecology Ltd was commissioned by Last and Tricker Partnership to carry out a Preliminary Ecological Appraisal (PEA) of the land for the proposed creation of a viewing mound at Buxhall Vale, Buxhall, Suffolk, IP14 3DH (central grid reference TM 00407 58739; Fig. 1; hereafter referred to as the Site).
- 1.2 The survey was required to inform a planning application at the Site; to include the construction of a viewing mound at the Buxhall Vale estate. The mound will be constructed across an area of 0.1 ha, within a wider ownership boundary. The mound is to be shaped from spoil already within the construction zone. The spoil was from an earlier construction project within the wider boundary.

Aims of Study

- 1.3 This report provides an ecological appraisal of the Site following the completion of a desk study and site visit. The aim of this study was to:
- Provide a description of existing habitat types;
 - To determine the existence and location of any ecologically valuable areas;
 - To identify the potential (or actual) presence of protected and/or notable species;
 - To provide the legislative and/or policy protection afforded to any habitats present or any species assessed as likely to be associated with the site; and
 - To recommend any further ecological surveys considered necessary to inform mitigation requirements for the planning application within the Site.
 - To provide an assessment of potential impacts to protected species, habitats, or protected sites.

Site Description

- 1.4 The survey area is located within the Buxhall Vale estate to the north of the village of Buxhall, Suffolk. The proposed construction zone is approximately 0.1 hectares and consisted of an area of species-poor neutral grassland. The grassland appeared regularly mown with an average sward height of approximately 10cm. The area was dominated by cock's-foot (*Dactylis glomerata*) and Yorkshire fog (*Holcus lanatus*) and had a relatively poor forb diversity but did include species such as creeping buttercup (*Ranunculus repens*) and cut leaved geranium (*Geranium dissectum*). Also within the works area was a large spoil heap, consisting of loose soil, which was placed there following another project within the ownership boundary.
- 1.5 The works area was bordered to the south and west by an active footpath running adjacent a mature hedgerow with trees. The hedgerow contained species such as hazel (*Corylus avellana*), sycamore (*Acer pseudoplatanus*) and elm (*Ulmus* sp.) with an understory of bramble (*Rubus fruticosus* agg.) and dog rose (*Rosa canina*). The hedgerow was growing over a ditch which was dry at the time of survey, this ditch was grown over with dogs mercury (*Mercurialis perennis*) and cleavers (*Galium aparine*).
- 1.6 Habitats surrounding the Site to the north and east included wider areas of grassland within the estate as well as ditches, tree belts, and scrub. To the west were large areas of agricultural land consisting of arable fields with, associated margins, ditches, and hedgerows (see Figure 1).

MAGiC

Site location

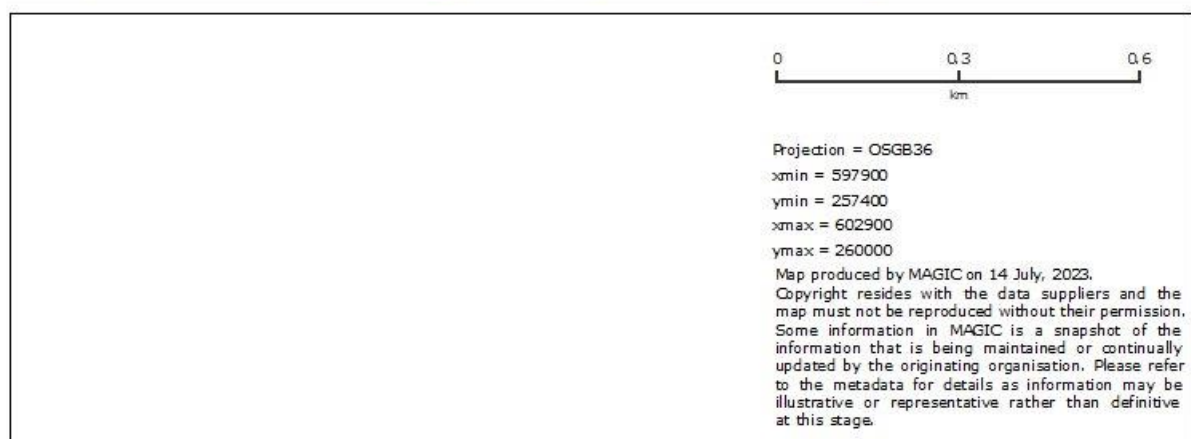
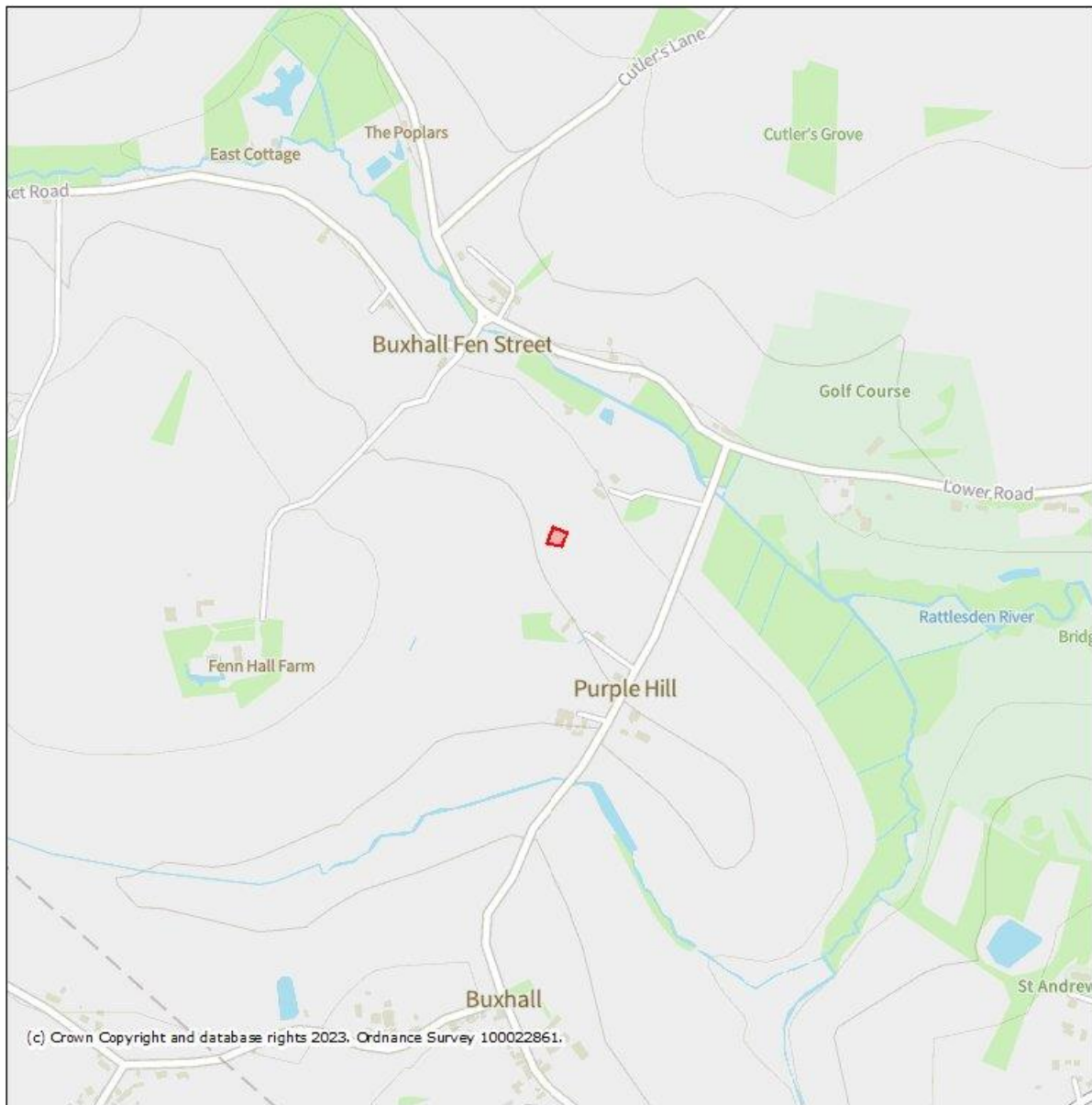


Figure 1. Site location

Relevant Legislation

- 1.7 Protected species, as referred to within this report, are taken to be those protected under European Legislation (Conservation of Habitats and Species Regulations 2010, as amended) and UK legislation (Wildlife and Countryside Act 1981; Protection of Badgers Act 1992).
- 1.8 Public bodies have a duty of responsibility to consider species of principle importance in England as listed in Section 41 of the NERC Act (2006).
- 1.9 The National Planning Policy Framework (NPPF) 2021 places responsibility on Local Planning Authorities (LPAs) to aim to conserve and enhance biodiversity in and around developments. Section 40 of the NERC Act requires every public body to “have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. Biodiversity, as covered by the Section 40 duty, is not confined to habitats and species of principal importance but refers to all species and habitats. However, the expectation is that public bodies would refer to the Section 41 list (of species and habitats) through compliance with the Section 40 duty.
- 1.10 “The Local Plan seeks to protect, retain, and enhance the high quality natural environment and designated landscapes and sites found across the Local Plan area which contribute to the overall success of the area and provides economic and social benefits for all...The Local Plan will seek to foster in new developments and to protect, retain, and enhance in existing developments.”
- 1.11 “Development proposals should be accompanied by sufficient information to assess the effects of development on priority habitats and species, protected sites, protected species, biodiversity or geology, together with any proposed prevention, mitigation, or compensation measures...”
- 1.12 Appendix V details legislation which protects species and groups relevant to the Site (bats, reptiles, birds, and badgers).

2. Methods

Desk Study

- 2.1 Data obtained from the Suffolk Biodiversity Information Service (SBIS) were used to conduct a standard data search¹ for any information regarding statutory and non-statutory sites and records of protected and priority species within a 2km radius of the Site. The data were received on the 7th of July 2023.
- 2.2 A 7km radius search for conservation areas part of the National Site Network, including Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsars was undertaken using MAGIC (<http://www.natureonthemap.naturalengland.org.uk/>).

Field Survey

- 2.3 A Preliminary Ecological Appraisal was carried out by Thomas Jordan BSc (Hons) (Natural England Great Crested Newt Class Survey Licence WML-CL08) on the 5th of July 2023 in accordance with standard best practice methodology for Phase 1 Habitat Surveys set out by the JNCC (JNCC 2010). Weather conditions during the survey were 50% cloud cover, a light/gentle breeze (Beaufort Scale 2-3), a temperature of 15°C, and good visibility. The Site was traversed slowly by the surveyor, mapping habitats, and making notes on dominant flora and fauna. The survey was extended to identify the presence of invasive species and included an assessment of the potential for the habitats in and around the Site to support protected species.

Survey Limitations

- 2.4 There were no limitations to the survey.

¹ *The standard data search identifies designated sites including:- Ramsar; Special Areas of Conservation; Special Protection Areas; Sites of Special Scientific Interest; National Nature Reserves; Local Nature Reserves; County Wildlife Sites; Regionally Important Geological Sites; Ancient Woodland; and protected and priority species identified by the:- Wildlife & Countryside Act 1981 Schedules 1, 5 & 8; Conservation of Habitats & Species Regulations 2010 Schedules 2 & 5; Protection of Badgers Act 1992; Bonn Convention Appendix 1 & 2; Bern Convention Annex 1 & 2; Birds Directive Annex 1; Habitats Directive Annex 2, 4 & 5; NERC Act 2006 Section 41; UKBAP (both local and national); IUCN Red List species; Red & Amber Bird List; Nationally Scarce / Rare; Locally Scarce / Rare; and Veteran trees.*

3. Results

3.1 The following section details the results of the desk study and field survey. Consideration has been given to species likely to be found in the habitats recorded on site and potential impacts to designated sites within the local area.

Data Search (for maps see Appendix II)

3.2 The following section details the results of the desk study and field survey. Consideration has been given to species likely to be found in the habitats recorded on site and potential impacts to designated sites within the local area. Several protected species have been 'scoped out' of the report, as the Site was not considered suitable to support them. Species scoped out were dormice, water voles, and otters.

Data Search

3.3 There were no statutory designated sites within 2 km of the Site. The site does not fall within the Impact Risk Zone for any SSSI sites in the surrounding area.

3.4 There are three County Wildlife Sites within 2km of the Site. These are:

- Buxhall Fen – Buxhall Fen is located in the Rattlesden River valley, to the north of the villages of Buxhall and Great Finborough. The site consists of an extensive mosaic of wetland habitats. Wet alder carr at the southern end grades into tall fen vegetation dominated by reed with patches of encroaching willow carr in the centre of the fen. There are additional areas of dense blackthorn scrub. A number of old drainage ditches run across the fen from west to east. The mosaic of woodland, reed and scrub provides an immensely valuable habitat for a wide range of breeding birds. Blackcap, whitethroat, marsh tit, and nightingale are among the many birds which have been recorded on this site. Buxhall Fen is of particular importance for wildlife as it is one of only a few wetland sites in this part of Suffolk.
- Great wood/Birds wood – This County Wildlife Site consists of two small woodlands situated amidst farmland to the south of Woolpit and to the west of Borley Green. Great Wood is enclosed on two sides by a deep ditch. It is composed of ash and field maple coppice with areas of mature silver birch. A number of large ash stools (over 2 metres across in width) are an indication of the wood's antiquity. Beneath the tree layer is a dense shrub layer consisting mainly of old hazel coppice with honeysuckle, privet, elder and hawthorn also present. Box has been planted as a cover for game. Birds Wood, to the south of Great Wood has a similar structure although it is rather more open in places. Bramble dominates the woodland floor where there is sufficient light. Dead wood in the form of fallen trees and branches which is abundant in both woods provides a valuable habitat for dead wood invertebrates. Great Wood and Birds Wood are managed entirely for game rearing and shooting. They are listed in the Suffolk Inventory of Ancient Woodland (English Nature).
- Shelland/Woolpit woods – This extensive area of woodland is listed in the Suffolk Ancient Woodland Inventory (English Nature). It lies to the south of the A45, to the east of Woolpit and to the south-west of Haughley. Shelland Wood has a number of features which are characteristic of ancient woodlands. Firstly, it is enclosed by a woodbank and ditch. Some sections of the sinuous woodland boundary are marked by a double ditch and bank, which is an unusual feature sometimes seen in old woods. Secondly, a number

of old oak, hornbeam and maple pollards are located along the woodland boundary. The majority of Shelland Wood is composed of ash, field maple and hazel coppice with oak standards. Some areas are dominated by hornbeam coppice. A detailed survey of the wood in 1986 showed that the ground flora supports a high diversity of flowering plants including several scarce Suffolk species which are restricted to ancient woods. These include herb-Paris, wood-melick, wood sorrel, abundant wood anemone and yellow pimpernel. Oxlip, a nationally rare species restricted to some East Anglian ancient woods has also been recorded in Shelland Wood. At the time of the survey, Shelland Wood had not been managed for some time. In contrast, Woolpit Wood which lies adjacent to Shelland Wood, has been altered considerably by the extensive planting of conifers. Semi-natural woodland is restricted to the southern corner. Shelland and Woolpit Woods, a large area of woodland, of considerable importance for wildlife conservation, is a valuable addition to the Register of County Wildlife Sites in the Mid Suffolk District.

- 3.5 There are no National Site Network conservation areas (Ramsar, SAC, or SPA) within 7km of the Site.
- 3.6 The data search showed records of protected species in the area, which could potentially occur on the Site. These are detailed within the relevant sections below.

4. Protected and Priority Species Within the Site & Potential Impacts and Recommendations

Statutory Designated Areas

- 4.1 The Site is not within the Impact Risk Zone for any SSSI sites, and the proposal will not significantly increase footfall or disturbance through the other conservation areas.
- 4.2 Given the small size of the development and screening provided by surrounding tree belts and agricultural fields, it was not considered necessary to carry out a Habitats Regulation Assessment for the development. The proposed construction area does not contain the habitat for which any of the conservation areas are designated. The areas contain extensive footpath networks, and the proposed construction will not significantly increase visitor footfall along these.

Flora

- 4.3 No species of interest were recorded during the survey and close mown grasslands were considered unlikely to support a rich flora. The desk study highlighted several species of rare plant have been previously recorded within 2km of the Site, this included those listed on Schedule 8 of the Wildlife and Countryside Act 1981 such as bluebell (*Hyacinthoides non-scripta*) as well as dwarf spurge (*Euphorbia exigua*) and lesser spearwort (*Ranunculus flammula*) which are classified as 'Vulnerable' and 'Endangered' on the England Red List. Almost all the rare and protected species highlighted within the data search are associated with marshland, arable land, woodland, and species-rich meadows.
- 4.4 The proposed development includes the creation of a new viewing mound associated with the Buxhall Vale estate. The construction area covers an area of species-poor mown grassland and spoil; this will result in the loss or change of use of these habitats. The lost habitat is not listed within the Section 41 of the NERC Act 2006 as being of principal important to the conservation of biodiversity within the UK and was not considered suitable to provide opportunities for protected species.
- 4.5 **No further botanical surveys are required.**

Badgers

- 4.6 The Site was visually searched for evidence of the presence of badgers (*Meles meles*), including setts, footprints, latrines, and snuffle marks. Habitats within the Site were suitable for foraging animals; however, evidence recorded was of rabbits only.
- 4.7 Where possible, habitats within 30m of the construction zone were assessed. No further evidence was found and there were no obvious badger runs leading into woodland or scrub -those found were attributed to rabbits.
- 4.8 The mature hedgerow and ditch, adjacent to the Site, were suitable for sett creation but will not be impacted by proposals.
- 4.9 Three records of badgers were returned within the desk study from 2007 to 2016; the nearest of which was from approximately 750m west of the Site.
- 4.10 **No further survey is necessary; however, precautionary measures detailed in paragraph 4.28 will be adhered to, to avoid disturbing nocturnal species and foraging mammals.**

Bats

- 4.11 There were no buildings within the Site boundary and trees within the ownership boundary will be retained through the development; therefore, there will be no impacts to roosting bats.
- 4.12 Although the Site offered limited foraging potential as the overall extent of the grassland is small and the habitats on Site were very unlikely to support assemblages of invertebrates (prey species), the boundary features (tree belts) could be used by foraging and commuting bat species.
- 4.13 The data search returned sixteen records of at least four species of bat within 2km of the Site; these were (*Myotis nattereri*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and brown long-eared (*Plecotus auritus*) bats within 2km of the Site.
- 4.14 **No further survey is necessary; however, the Site will incorporate sensitive lighting – ensuring the boundaries are not illuminated as it could be an important commuting corridor for nocturnal species.** This will follow guidance provided by the Bat Conservation Trust (Bats and Artificial Lighting in the UK, 2018), to ensure foraging and commuting bats using adjacent habitats are not negatively impacted. Lighting measures should also be applied to temporary security lighting used during the construction phase. This will include low pressure sodium lamps, with hoods, cowls, or shields, to prevent light spillage.

Birds

- 4.15 Dense hedgerows with trees scrub growth adjacent the western and southern boundaries provided excellent nesting and foraging habitat for a range of bird species. The grassland within the work area lacked a suitable structure for ground nesting species and appeared regularly disturbed and was in very close proximity to a public footpath.
- 4.16 The data search returned a high number of records of common and protected species that have been observed in the local landscape. The dense scrub at the boundaries and along fence lines offered nesting and foraging habitat for BoCC red listed and NERC S41 species such as duncock (*Prunella modularis*) and linnet (*Linaria cannabina*).
- 4.17 **Due to the minimal amount of nesting habitat lost from the construction zone, no further survey is necessary. This habitat will be cleared outside the nesting bird season or following a nesting bird survey** (carried out by an experienced ornithologist/ecologist); should any active nests be found, then clearance will stop until young have fledged.

Great Crested Newts & Reptiles

- 4.18 Habitats recorded throughout the works area were considered unlikely to support the herptile species recorded in the local area (detailed below). The short, mown grassland did not have structure for either foraging or sheltering amphibians; however, it did offer opportunities for reptiles (basking), and they were adjacent to areas of hedgerow/scrub and ditches, which could be used by foraging or sheltering animals.
- 4.19 There were seven ponds/waterbodies highlighted on OS maps within 500m of the Site boundary, these could provide breeding opportunities for amphibians, including great crested newts (*Triturus cristatus*), as well as providing habitat for grass snakes (*Natrix helvetica*).
- 4.20 There were two records of GCN returned in the data search, both records were from 2018 with the nearer of these being from approximately 1km south of the Site. The only other amphibians recorded in the local area were smooth newt. There were no records of common or protected reptile species returned within the data search.

- 4.21 **Further survey is not considered necessary due to the small extent of the construction zone and lack of suitable habitat.** It is recommended that the grassland continues to be maintained to a height of below 150mm, to ensure that the habitat does not become more favourable to reptiles or amphibians that may be in the local area.

Hedgehogs

- 4.22 Grassland habitats within the Site offered potential foraging habitat for hedgehogs; the shorter grassland provided good access to potential prey items. The adjacent hedgerows and tree belts offered an extension of this foraging habitat and could also be utilised as a potential commuting corridor, and cover for sheltering and hibernating animals. Fallen leaves from deciduous trees could provide nest building material.
- 4.23 Although no evidence of hedgehogs was recorded during the survey, the data search returned 40 records of hedgehog within 2km of the Site from 2005 to 2021. The nearest of these records was from approximately 350m south of the site.
- 4.24 **No further survey is necessary; however, as the Site provides suitable foraging habitat for foraging mammals, and hedgehogs and badgers have been recorded in the local area, construction works will implement several precautionary measures, including the following:**
- Covering excavations overnight to prevent animals falling in, or the provision of an escape ramp;
 - Safe storage of materials that may harm animals; and
 - Security lighting to be set on short timers to avoid disturbing nocturnal animals using the Site and immediate surrounding area – it will be directional to avoid boundary features (trees and hedgerows).

Invertebrates

- 4.25 The mown grassland areas were unsuitable for supporting assemblages of common and rare/protected terrestrial invertebrates. Much of the habitat was disturbed, and there was limited forb, ruderal, or scrubby/woody species. Much higher quality and abundant habitat was available within the adjacent hedgerow with trees.
- 4.26 The data search included records of several S41/UKBAP moths, flies, and rare butterflies – such as white admiral (*Limenitis camilla*) butterflies which are listed as ‘Vulnerable’ on the England Red List. This species is unlikely to utilise habitats found within the construction zone, such as short as grassland.
- 4.27 **No further survey is necessary due to size of the works area and habitats lost.**

5. Conclusions

- 5.1 The preliminary ecological appraisal found the Site contained habitats suitable for supporting protected species – bats, birds, and mammals. Hedgehogs are listed as a Species of Principal Importance in England (and listed on Schedule 6 of the Wildlife and Countryside Act 1981 – making it illegal to kill or injure through certain methods) and so should also be considered as part of this application. The following measures will be implemented to minimise the risk of harm to individual animals:
- Covering of excavations and/or provision of exit ramps is recommended during works to prevent harm to mammals.
 - Continued maintenance of the grassland to below 150mm to discourage reptiles and amphibians.
 - Sensitive lighting measures to prevent disturbance to foraging bats or other nocturnal species. An experienced ecologist will liaise with construction staff to inform these measures.
- 5.2 As detailed in Paragraphs 1.9 and 1.10, the Local Policy requires new developments to have consideration for priority habitats and species, protected sites, protected species, and biodiversity. The proposed creation of the viewing mound will not cause significant harm or disturbance to such features. The development will follow the mitigation hierarchy and avoid negative impacts to biodiversity wherever possible. Any remaining short-term impacts (such as the removal of very limited areas of grassland) or potential long-term impacts (such as disturbance to ecological corridors) will be adequately mitigated for through the above measures.
- 5.3 In addition to having a negligible impact to biodiversity within the construction boundary, the development will not negatively impact species or habitats within the wider ownership boundary or adjacent land. There will be no impact on SSSIs or National Site Network conservation areas and no requirement for a Habitat Regulations Assessment.

6. References

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Froglife (1999) Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Halesworth.

JNCC (2010) Handbook for Phase 1 habitat survey: a technique for environmental audit (revised reprint) JNCC: Peterborough.

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10 (4), 143-155.

Stace, C. (1997). New Flora of the British Isles (2nd Edition). Cambridge University Press, Cambridge.

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http://www.bats.org.uk/data/files/bats_and_lighting_in_the_uk_final_version_version_3_may_09.pdf

<http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>

Appendix I: Site Photos



Proposed area for the viewing mound



Mown grassland within the works area.



Existing spoil mound in the works area.



View of entire works area.

Appendix II: Species Lists

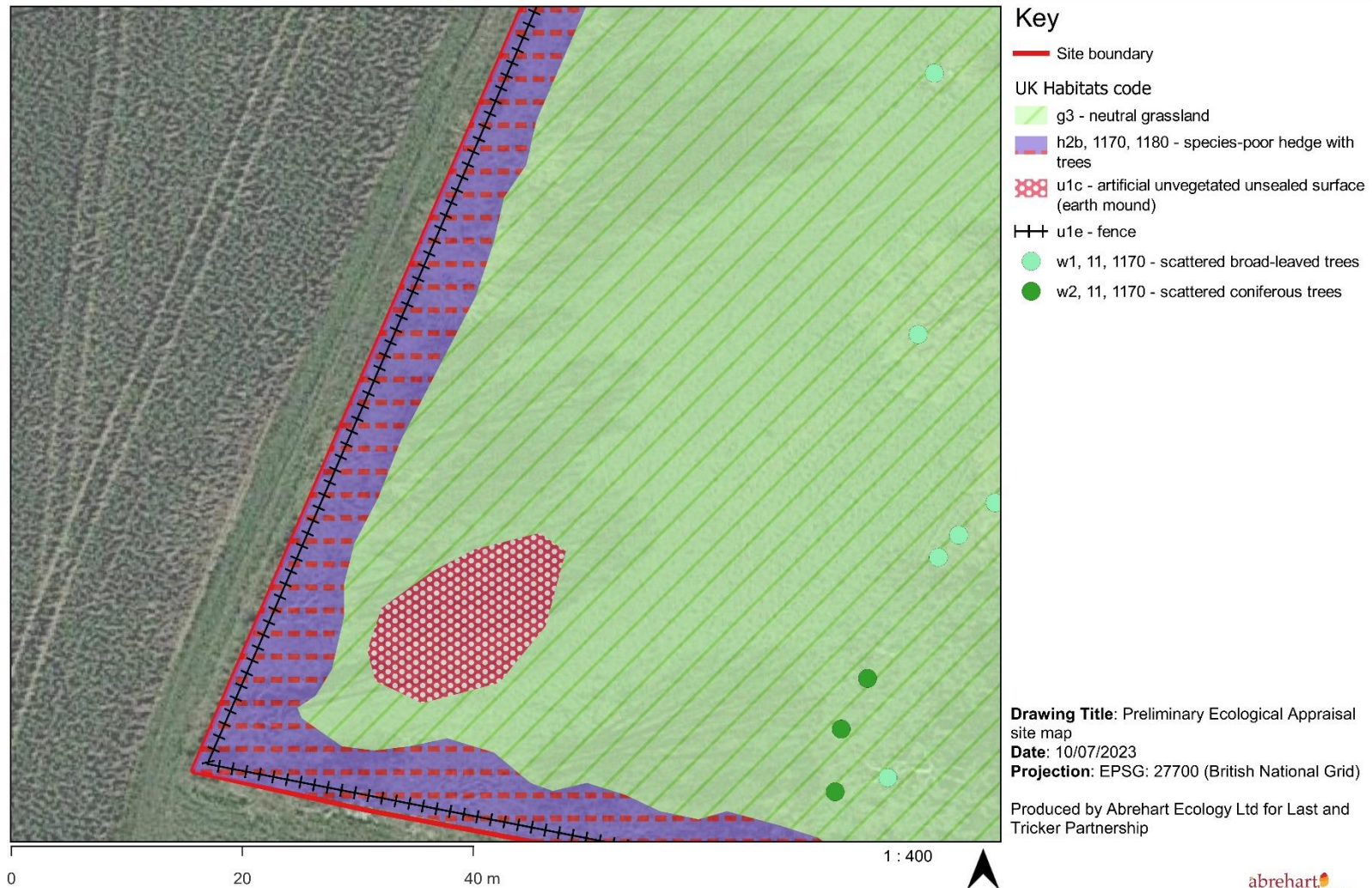
Plants

Species
<i>Acer pseudoplatanus</i>
<i>Anthriscus sylvestris</i>
<i>Clematis sp.</i>
<i>Corylus avellana</i>
<i>Dactylis glomerata</i>
<i>Galium aparine</i>
<i>Geranium dissectum</i>
<i>Glechoma hederacea</i>
<i>Holcus lanatus</i>
<i>Heracleum sphondylium</i>
<i>Hypericum perforatum</i>
<i>Ligustrum sp.</i>
<i>Mercurialis perennis</i>
<i>Ranunculus repens</i>
<i>Rosa canina</i>
<i>Rubus fruticosus agg.</i>
<i>Rumex obtusifolius</i>
<i>Ulmus sp.</i>
<i>Urtica dioica</i>
<i>Veronica sp.</i>

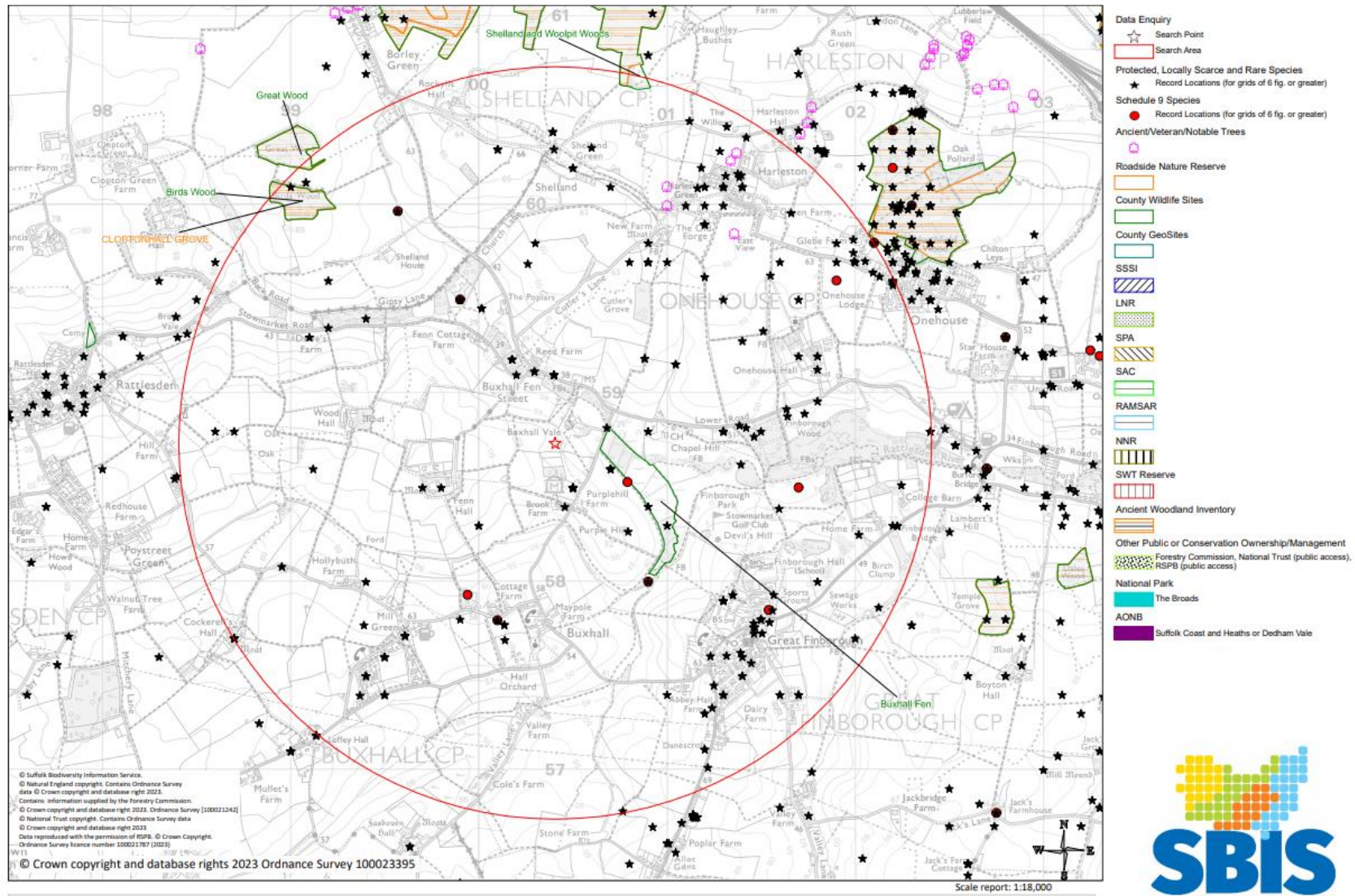
Appendix III: Figures

Phase 1 Habitat Map

TM 00411 58739: Buxhall Vale, Buxhall, Suffolk



Statutory and Non-Statutory Designated Sites within 2km of the Site



Date: 07/07/2023 | Drawn by: Andy Mercer

Abrehart Ecology (Buxhall TM 00406 58737) 2km Data Enquiry

Appendix IV: Relevant Protected Species Legislation

Species	Legislation	Protection
Bats	<ul style="list-style-type: none"> ▪ Conservation of Habitats and Species Regulations (2010) (as amended) ▪ Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended) ▪ Wild Mammals Act (1996) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill, injure or take any bat ▪ Intentionally or recklessly disturb a bat ▪ Intentionally or recklessly damage, destroy or obstruct access to a bat roost
Great Crested Newts	<ul style="list-style-type: none"> ▪ Conservation of Habitats and Species Regulations (2010) (as amended) ▪ Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill, injure or take a great crested newt ▪ Intentionally or recklessly disturb a great crested newt ▪ Intentionally or recklessly damage, destroy or obstruct access to any place used by a great crested newt for shelter or protection
Widespread Reptiles	<ul style="list-style-type: none"> ▪ Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill or injure a reptile ▪ Sell, offer or expose for sale, have in possession or transport for the purpose of sale any live or dead reptile or any part of, or anything derived from, a reptile
Birds	<ul style="list-style-type: none"> ▪ Wildlife and Countryside Act (WCA) (1981) (as amended) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill, injure or take any wild bird ▪ Intentionally take, damage or destroy nests in use or being built ▪ Intentionally take, damage or destroy eggs <p>Species listed on Schedule 1 of the WCA (1981) are afforded additional protection, making it an offence to intentionally or recklessly disturb such species at, on or near an active nest</p>