

Preliminary Ecological Appraisal Kaliwood

November 2023



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DISCLAIMER

This report has been compiled in accordance with BS 42020:2013 Biodiversity - Code of practice for planning and development, as has the survey work to which it relates.

The information, data, advice and opinions which have been prepared and provided are true and have been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional *bona fide* opinions.

This survey was carried out and an assessment made of the site at a particular time. The evidence of the report can be used to draw conclusions as to the likely presence/absence of protected species and the impacts of any future development works. This survey is a snapshot in time and further work may be necessary, for instance, if there is a delay, or when applying for a Natural England European Protected Species Licence, or the requirement for a Habitat Regulations Assessment.

Every effort has been made to date to provide an accurate assessment of the current situation, but no liability can be assumed for omissions or changes after the survey has taken place.

It is our policy to submit biological records to Suffolk Biodiversity Information Service (SBIS), for the purposes of increasing knowledge of the distribution of species within Suffolk. If you wish to discuss this, please contact us within three months of submission of this report.

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EXECUTIVE SUMMARY

SWT Trading Ltd: Wilder Ecology was commissioned by Maddie Lord, Farm Wildlife Adviser, Suffolk Wildlife Trust, in November 2023 to undertake a Preliminary Ecological Appraisal of a site at Kaliwood, Beccles Road, Halesworth IP19 8NQ. This survey was carried out in advance of a planning application for the creation of one pond.

The site visit was undertaken on November 21st, 2023. The survey focused on assessing the habitats present at the site. Fieldwork was conducted using UKHab-Professional at Primary Hierarchy Level 5, with a Minimum Mapping Unit of 25m². The habitats were evaluated using Biodiversity Metric 4.0 Condition Assessment sheets, assessing habitat distinctiveness and condition.

The site was found to contain an arable field, previously used for cereal crop cultivation, which had been ploughed earlier in the year, and now left as a pollen/nectar mix, on the site of the proposed pond. Adjacent habitats included deciduous woodland, hedgerow, ditch and ponds. The habitats on site, with the exception of the ditch, have high distinctiveness, the woodland and hedgerow are in good condition, the ponds in moderate condition, and the ditch in poor condition. There is one statutorily designated site within 2km, in Holton Pits SSSI, and 8 non-statutorily designated County Wildlife Sites (CWS).

The site offers suitable habitat for a range of Protected and UK Priority species but is most notable for its potential to support great crested newts, bats and reptiles.

Guidance has been provided to mitigate any impacts upon habitats and species. There are not thought to be any negative impacts from the works on the site, but advice has been given to ensure preventative care is taken during the works.

1. INTRODUCTION

1.1 General Introduction

This report has been prepared by SWT Trading Ltd: Wilder Ecology, the ecological consultancy of the Suffolk Wildlife Trust, for Suffolk Wildlife Trust. It comprises the results of a preliminary survey to investigate the potential impacts on wildlife that would result from the creation of one pond.

1.2 Location and Description of Site

The site lies in the parish of Holton, Suffolk (TM 407 778), and comprises a fallow field. A mature woodland currently used for forest school education lies adjacent to the site. The site is accessed from the B1124, approximately one mile north-east of the town of Halesworth, in the Waveney District. The surrounding landscape comprises largely arable land, but there is woodland to the north of the site.

The pond will be created in the north-western corner of the field, adjacent to the woodland. The field where the pond will lie was ploughed in January 2023, and has since been planted with a nectar-rich seed mix.

Telegraph wires cross overhead at close proximity to the proposed pond location.

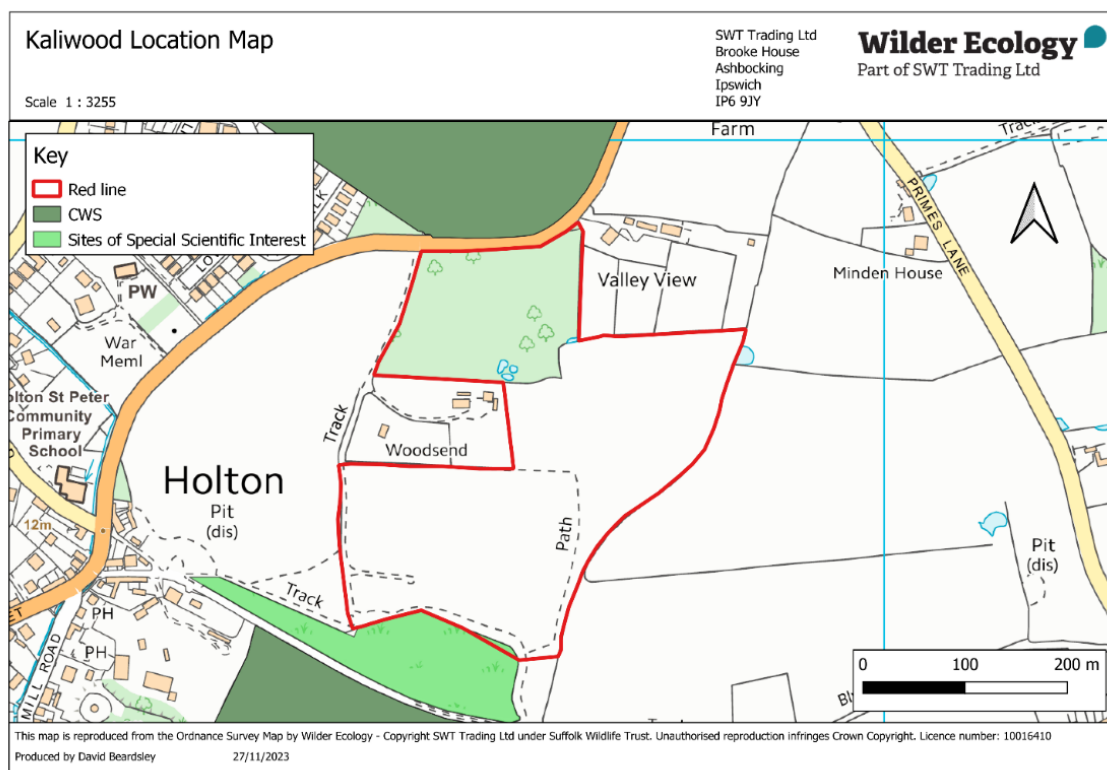


Figure 1. Location Map

1.3 Outline of Proposed Works

The proposed works involve the creation of one pond during the winter months in early 2024 (January/February).

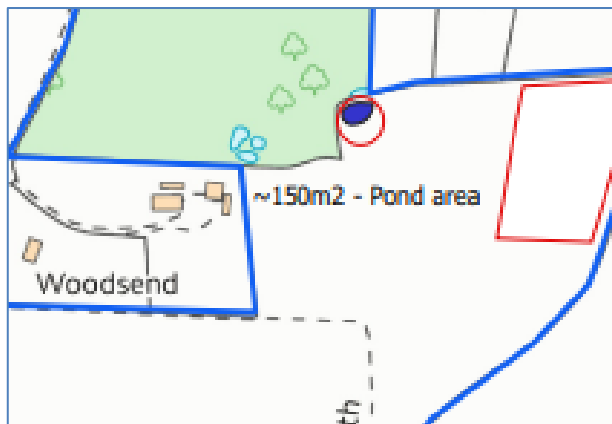


Figure 2. Pond area

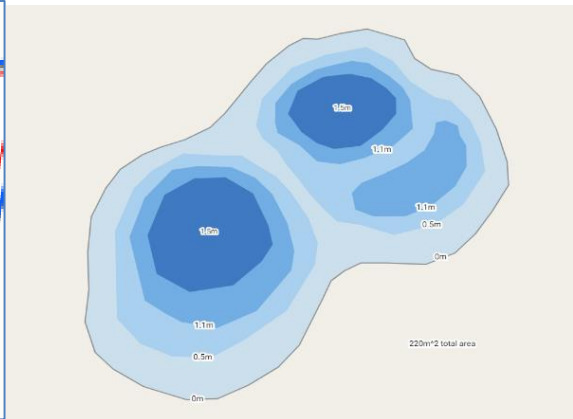


Figure 3. Example of appropriate pond dimensions

The proposals involve the creation of a pond adjacent to the existing woodland, with an approximate area of 150m². These ponds will be dug to Natural England specification (see Appendix 2), within the constraints of the site and the arising material is to be banded onsite in low non-compacted bunds. As illustrated in Figure 3, the ponds will be dug at a gradual profile which makes for suitable great crested newt habitat.

1.4 Objectives of Survey

The aim of the survey was to determine how the proposed work might impact on wildlife or habitats that are of significance in a local, regional or national context. This primarily involved the consideration of species that have legal protection, but also included an assessment of any other noteworthy species and communities, as well as the type and quality of the habitats.

A secondary aim was to identify any constraints or considerations placed upon the re-development of the site as the result of the flora or fauna present.

The advice given in this report is valid for 12 months. If, after this time, the proposed work has not been undertaken, the advice of an ecologist should be sought as to the possible need for a new survey prior to submitting a planning application or implementing the scheme. Notwithstanding this, any obvious material changes in the area, such as the excavation of holes that might be new badger setts, the growth of tall vegetation over previously cultivated land, or changes in the scheme design, should be reported to Wilder Ecology prior to any work commencing on site so that the advice herein can be revised, if necessary.

2. SURVEY METHODOLOGY

2.1 Desktop

Before the site visit, a search of the Suffolk Biodiversity Information Service database was made for existing records of legally protected species and for sites with conservation designations within two kilometres of the proposed development site.

2.2 Site visit

A site visit was made on 21st November 2023 by Jill Wyllie, BSc hons, ACIEEM and David Beardsley, FdSC. Weather conditions were interchangeable, with sunny spells and showers, and approximately 10°C. Habitats on the site were mapped in line with the UK Habitat Classification version 2.0. The site was surveyed for signs of legally protected or otherwise noteworthy species, such as those of Principal Importance in England (priority species included on the “Section 41 list” as required by the Natural Environment and Rural Communities Act 2006 and Red Data Lists; and assessed for habitats that might support legally protected species. Any habitats of value in their own right or that appeared to be of particular value to wildlife were also recorded. These features are identified on the UKHab map by means of Target Notes, which are then referred to in the text.

Where access was possible, the search extended beyond the boundary of the site, as populations of some species (e.g. badgers) living beyond the immediate boundary of the site could still be affected by activities upon it. Hedgerows and ponds were surveyed on the site, with the aim of assessing their quality and condition. With this knowledge, it can be determined how species that rely on these habitats, i.e. water voles, badgers and birds, will be impacted by the works.

Specific searches and assessments were made as follows:

- Hedgerows – assessment using Hedgerow Regulations 1997 criteria;
- Great crested newt – identification and assessment of any suitable breeding ponds using Habitat Suitability Index (HSI, see below), terrestrial habitat and potential hibernation sites;
- Bats – identification of potential roost sites and searches for evidence of activity; assessment of foraging habitat and commuting routes;
- Otter – search for holts, spraints and footprints;
- Water vole – search and mapping of burrows, latrines, footprints, and feeding stations
- Reptiles – assessment of suitable habitat and potential hibernation sites;

- Birds – assessment of nesting habitat, e.g. hedgerows, trees, scrub, buildings; likelihood of the presence of species listed within Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), identified as a Bird of Conservation Concern or other significant assemblages;
- Badger – search for and mapping of setts, pathways, footprints, holes, latrines, hairs;
- Priority species – searches and assessment of habitat for the presence of and potential use by species such as brown hare, common toad and hedgehog;
- Species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) – where appropriate, identification and mapping of such species.

The Great Crested Newt Habitat Suitability Index (HSI) has been published by the Amphibian and Reptile Groups of the UK as a means of assessing the suitability of a pond to support breeding Great Crested Newts (ARG UK, 2010). It combines indices describing ten factors believed to influence Great Crested Newts into a single value between zero and one, zero indicating completely unsuitable habitat and one representing optimal habitat. Although this is not a substitute for an amphibian survey, it does allow for a judgement of risk in relation to the presence of Great Crested Newts.

Under the Hedgerows Regulations 1997, a hedgerow is classed as ‘important’ if it has existed for 30 years or more and satisfies a number of criteria such as particular species, a significant number of woody species or association with archaeological or historical landscape features, as listed under Part II of Schedule I of the Regulations.

Where it was possible to do so, potential impacts were identified and assessed in accordance with the Institute of Ecology and Environmental Management’s *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017) and *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018, updated April 2022) with particular reference to the geographic frame of reference that it contains. This suggests valuing ecological resources in the following context: International, UK, National (England), Regional, County, District, Local/Parish and Site. The scale and significance of each potential impact is then assessed using published guidance, which varies from species to species, and the risk of potential impacts occurring (without mitigation) is quantified in accordance with the CIEEM guidelines, using the following:

Level	Probability
Certain	95% or higher
Probable	50-94%
Unlikely	5-49%
Extremely unlikely	Less than 5%

A combination of these factors can then be used as a guide to determine appropriate mitigation.

2.3 UK Habitat Classification Survey

The survey of habitats was undertaken following the recommendations of the UK Habitat Classification Working Group (2018 and 2020) and UKHab (2023). Fieldwork was conducted using UKHab-Professional at Primary Hierarchy Level 5, with a Minimum Mapping Unit of 25m². Vegetation datasets were generated by listing all recognisable species within each distinct grassland and stand, with scrub and woodland species listed separately.

The site and its constituent habitats were evaluated using Biodiversity Metric 4.0 Condition Assessment Sheets appropriate to the habitats recorded.

2.4 Competence

Jill Wyllie BSc Hons, ACIEEM is highly experienced in habitat assessment using Phase 1 and UK Habitat Classification, and protected species surveys with a specialist interest in water voles and is registered on a Class Licence for water vole mitigation, she also holds a Natural England Survey licence for great crested newts. She has extensive experience of implementing complex mitigation schemes for water vole and badger. Jill also undertakes GIS mapping and holds a CSCS card.

David Beardsley FdSc, joined the Consultancy in August 2023. He is a competent field surveyor and has experience in various protected species surveys including bats, water voles, reptile translocations & breeding birds, as well as habitat assessment such as Preliminary Ecological Appraisals (PEA). David holds a CSCS card and is a qualifying member of CIEEM.

2.5 Constraints of Methodology

This survey was designed to provide a preliminary assessment of the site's wildlife value. Observations were made on and around the site to establish the potential of the habitats to support legally protected and other noteworthy species. Although presence or absence has been determined where possible, for some species-specific survey techniques or levels of survey effort are needed. Where necessary, additional survey work is recommended.

The wildlife and habitats present on any site are subject to change over time. All single-visit surveys of this kind can only record the situation as it is at the time, rather than providing a comprehensive analysis of the site's ecology. The survey was limited to ecological issues and so did not consider aspects such as archaeology, landscape, arboriculture or Tree Preservation Orders.

A data search has been undertaken from Suffolk Biodiversity Information Service; however, it is not considered to provide a complete list of species present in the area with many species known to be under recorded. Therefore, should only considered to be a list of species recorded.

3. RESULTS

3.1 Habitat

3.1.1 Habitat Description

The location of the proposed pond lies within a field that has previously been used for arable cereal crop, including wheat. In January 2023 this field was ploughed and has since been planted with species that can be classified as a pollen & nectar mix, these include red clover, wild mustard and borage.

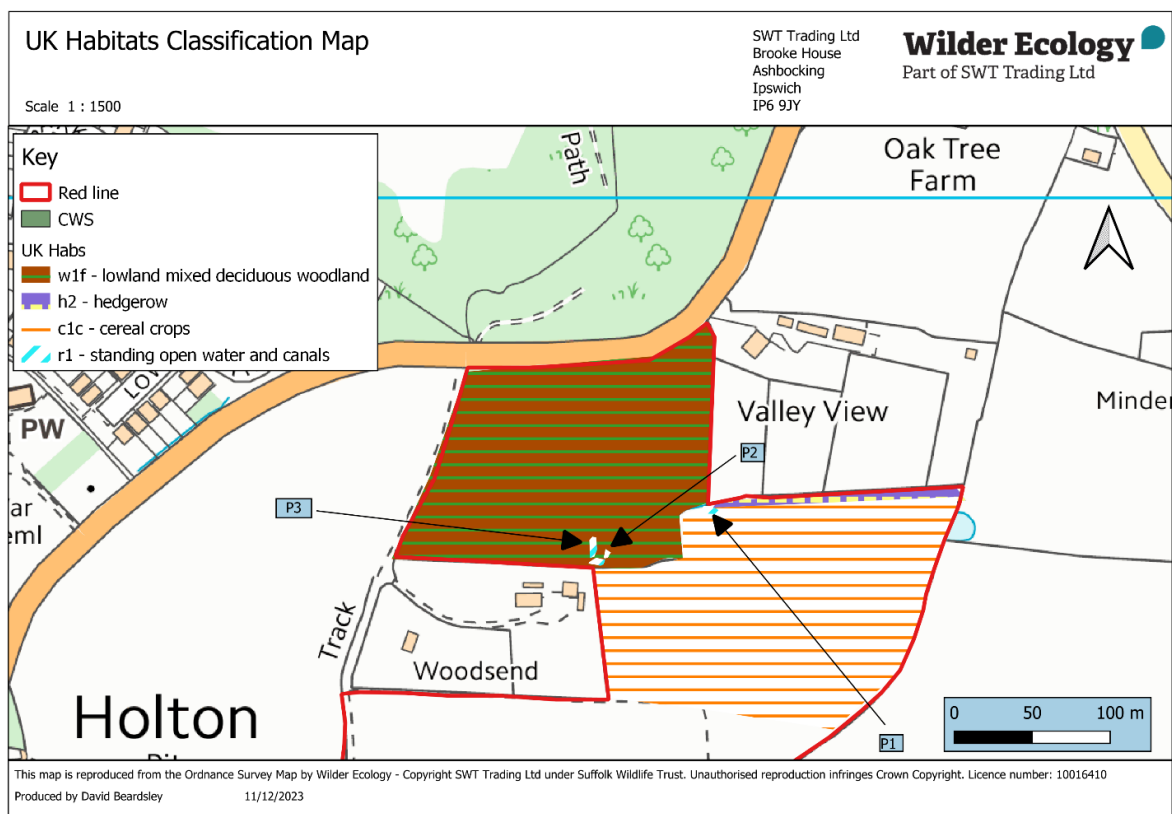


Figure 4. UK Habitats Classification map

To the north and northwest of the proposed pond location is a mixed deciduous woodland. A mature hedgerow is adjacent to the proposed pond location and stretches eastwards.

A ditch is present on the west and north side of the proposed pond location, it runs between the woodland and the field.

Arable fields pollen and nectar		Code: c1c8
Secondary codes:	600 – Ploughed 604 – Whole-field fallow	
Ecological Distinctiveness	Approximate area (ha) / length (km)	
Medium	2.32ha	
Description		
This parcel was used as an arable field until January 2023. At this point the field was ploughed and subsequently sown with various plants including borage, wild mustard and red clover. There is still some bare ground in this early stage of succession.		
		
Photograph 1. Looking south across the fallow arable field		
Condition:	n/a	
Rationale for condition assessment:		
There is no condition assessment available for cropland.		

Mixed deciduous woodland		Code: w1f
Secondary codes:	30 – Semi-natural woodland 211 – Coppice with standards	
Ecological Distinctiveness	Approximate area (ha)	
High	0.64ha	
Description		
This woodland contained a diversity in structure, age and species of trees, and was host to 3 ponds. This habitat contained several tree species, including English oak, ash, hornbeam, blackthorn and hazel. It was managed by coppicing.		
		
Photograph 2. Pond 1 within the woodland which connects directly to the ditch on the boundary		
Condition:	Good	
Rationale for condition assessment:		
Diversity of species, diversity of age and structure, lack of invasive plant species, high proportion of native tree species (at least five), open space within woodland.		

Species-rich hedgerow		Code: h2a5
Secondary codes:	11 – Hedgerow with trees	
Ecological Distinctiveness	Approximate length (km)	
High	0.16	
Description		
This hedgerow has at least five different species, including field maple, blackthorn, hazel and dogwood, there were also ash and oak trees, some of the ash trees were showing signs of ash dieback. The majority of the trees present are mature/semi-mature and robust in structure, and is classed as a good condition habitat of its kind.		
		
<i>Photograph 3. Hedgerow along the northern boundary of the fallow arable field</i>		
Condition:	Good	
Rationale for condition assessment:		
At least five different species, >1.5m in height along length, >1.5m in width along length, no gaps at the base, no invasive/neophyte species, >90% of hedgerow undamaged or undisturbed by human activities.		

Other standing water		Code: r1g
Secondary codes:	50 - Ditch	
Ecological Distinctiveness	Approximate length (km)	
Moderate	0.22	
Description		
No aquatic marginal vegetation, heavily shaded, there is some terrestrial grass present in the channel, but there were particularly high water levels at the time of survey, which must be taken into account.		
Condition:	Poor	
Rationale for condition assessment:		
Heavily shaded, no aquatic marginal vegetation.		

Other standing water		Code: r1g
Secondary codes:	41 – Pond (non-priority)	
Ecological Distinctiveness	Approximate area (ha)	
Moderate	0.005/0.003/0.015	
Description		
These are three ponds that are within 50m of the proposed pond site. They all contained water, which showed no sign of pollution. No non-native species were observed in the ponds, however they are all almost entirely covered by duckweed. There were significant levels of shade, owing to the fact two of them were in the woodland area, and one of them was on the fringes of the woodland. They had no artificial fish stocks.		
		
<i>Photograph 4. Pond 3 within the woodland</i>		
Condition:	Moderate	
Rationale for condition assessment:		
It passes criteria of not being artificially stocked with fish, having fluctuating water levels, having no signs of pollution, and a lack of non-native plant species. However, there is more than a 10% cover of filamentous algae, and the surround habitat cannot be considered semi-natural, therefore its condition is moderate.		

3.1.2 Habitat Assessment

There are three ponds on site, Priority habitat, all of which are of similar size and profile. An HSI was undertaken for all of them, which gives a sound assessment of the ponds (see 3.2.2).

A species-rich native hedgerow which is in good condition lies along the northern boundary of the arable field. This hedgerow is mature, diverse in species, consistent in its structure (i.e no gaps).

A mixed deciduous woodland in good condition lies adjacent to the proposed pond location site.

3.1.3 Proximity to designated habitats

There is one statutorily designated site and seven non statutorily designated sites within 2km of the site. See Table 1 below for details.

Table 1. Statutory and non-statutory designated sites within 2km

Distance/ direction	Name and Designation	Description
141m N	Holton Hall CWS	The site comprises semi-natural woodland with veteran trees, a freshwater lake and species rich grassland.
258m S	Holton Pit SSSI	This is a SSSI for its geological interest. The quartzoze gravels here are thought to be an Anglian glacial outwash.
351m S	Holton Sand Pit CWS	This site contains an excellent structural diversity with mature trees, scrub, rough grassland, bare ground and ponds providing opportunities for a wide range of species. It is connected to other green spaces in the area via adjacent woodlands and Holton Pit Site of Special Scientific Interest (SSSI) to the north.
916m SE	Hurricane Wood CWS	This is a site mostly comprising secondary woodland of alder and polar trees. The main value of this site is that it provides refuge for otters, who have recently returned to the Blyth valley, after many years' absence.
1.41km SW	Halesworth Cemetery CWS	This CWS is split into two areas. The northern section contains species grassland with some scattered trees, while the south-east section has more scattered trees and scrub.
1.42km SW	Birds Folly CWS	The site represents a mosaic of different habitat types including secondary mature woodland, dense scrub, acid heath and grassland. This forms part of a larger area called Millennium Green.
1.45km SW	New Reach River & March CWS	This is a small stretch tributary of the River Blyth. The meadow present contains a good assemblage of species, including some characteristic of damp grassland such as ragged robin, marsh thistle, water figwort, common spotted orchid and cuckoo flower as well as many common meadow species. Otter, water vole and water shrew have been recorded here.
1.76km NW	Fairview Farm Meadow CWS	The meadow here provides suitable habitat for a range of invertebrates such as butterflies, bees and grasshoppers as well as small mammals, hedgehog and bats. Barn owl has been recorded hunting over the meadow. The site has good connectivity via hedgerows and field margins to other species-rich sites in the area, so also offers opportunities for great crested newt, slow worm and grass snake, which have all been recorded on adjacent land.

3.2 Legally Protected Species

It should be noted that this section only covers species with legal protection that is likely to be relevant to the proposals. For example, species for which sale alone is an offence are not mentioned here.

3.2.1 Bats

The woodland adjacent to the proposed pond could provide roosting opportunity for bats, there are mature oak and ash trees which could host bat roost features. The hedgerow is constant, mature, contains trees and lies adjacent to a ditch, this can provide suitable commuting and foraging habitat for bats, as with the woodland. There are three ponds and one ditch within close proximity to the proposed pond site, this can provide habitat for typical bat prey, and can therefore provide foraging opportunities for bats.

The woodland is likely to have moderate suitability for roosting bats and the overall site offers moderate suitability commuting/foraging habitat for species such as common pipistrelle, soprano pipistrelle, serotine, noctule, and brown long eared, which have all been recorded within 1km of the site.

This site is of local value for roosting, commuting and foraging bats.

Table 2: Guidelines for assessing potential suitability of proposed development sites for bats (Collins, 2023)

Suitability	Roosting Habitats	Commuting and Foraging Habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible^a	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^b and/or suitable surrounding habitat to be used on a regular basis by large numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual hibernating bats).	Habitat that could be used by small numbers of bats as flight-paths 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 patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection,	Continuous habitat connected to the wider landscape that could be used by

	conditions ^b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	bats for flight-paths 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 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 ^b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths 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 broad-leaved woodland, tree-lined water courses and grazed parkland. Site is close to and connected to known roosts.
^a Negligible is defined as ‘so small or unimportant as to be not worth considering, insignificant’. This category may be used where there are places that a bat could roost or forage (due to one attribute), but it is unlikely that they actually would (due to another attribute). ^b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.		

3.2.2 Great Crested Newt

Three ponds were recorded on site, at the time of the site visit, an HSI was conducted for each pond on site, which are outlined below. There are seven records of great crested newts within 2km of the site. The closest record lies 800m south.

Table 3. HSI Scoring

Pond	P1	P2	P3
Geographic location	1	1	1
Pond Area	0.1	0.1	0.2
Permanence	0.5	0.9	0.9
Water Quality	0.67	0.67	0.67
Shade	0.67	0.65	0.58
Waterfowl	0.67	0.67	0.67
Fish	1	0.67	0.67
Pond count	1	1	1
Terrestrial habitat	1	1	1
Macrophytes	0.4	0.4	0.35
Score	0.6	0.61	0.64
GCN Suitability	Average	Average	Average

If any great crested newts are present the population is likely to be of local value.

3.2.3 Hazel dormouse

This site is out of the hazel dormouse range, therefore they will not be considered in this report.

3.2.4 Otter

There are local records of otter in the Blyth valley, the site provides potential habitat for a holt. The site won't provide any valuable foraging habitat.

The site is likely to have low value for otters.

3.2.5 Water vole

The ditch which separates the woodland from the field was assessed for its suitability to support water voles. Although the ditch banks offer suitable banks for burrowing, the emergent vegetation is limited to terrestrial species, which will not be available year-round. There is also not a great deal of cover for refuge and the ditch is quite shaded and unlikely to hold water at drier times of year. It was concluded that the site was sub-optimal for water vole.

No field signs were noted at the time of survey, however, heavy rainfall prior to the survey would likely have obscured any evidence should it have been present.

There is a moderate level of connectivity from this site to the Blyth Valley, where water voles have been recorded, at a distance of 809m, with Holton Sand Pits SSSI being situated in between.

The site is likely to be of low importance for water voles.

3.2.6 Reptiles

The site comprises habitat that is highly suitable for reptiles. The adjacent woodland and mature hedgerow offer opportunities for foraging, and four hibernaculum sites provide refuge and hibernation opportunities. There are several records of slow worms, grass snakes, and common lizard within 2km of the site. The closest of which is 140m N of the site. There have been very recent translocations of slow worms and common lizards to Holton Hall Park CWS, which is the closest non-statutory site to the site. Grass snakes were also observed there in summer 2023.

This site is likely to have local value for slow worms, common lizards and grass snakes.

3.2.7 White-clawed crayfish

The site does not provide suitable habitat for white clawed crayfish and they will not be considered further in this report.

3.2.8 Breeding birds

There is limited breeding habitat on the south side of the proposed pond. There is opportunity for breeding in the adjacent hedgerow and woodland.

The site is likely to have local value for birds.

There have been BOCC⁵ birds recorded within 2km of the site. Red listed birds recorded include cuckoo, turtle dove, skylark, yellowhammer, herring gull, linnet, spotted flycatcher, starling, house sparrow, amber listed species included dunnock, bullfinch and song thrush.

Barn Owl, a Schedule 1 Priority species, has also been recorded within 2km of the site.

3.2.9 Badger

With adjacent woodland present, there is likelihood of badgers using the site, Holton sand pits SSSI nearby would also provide good opportunity for setts. There are five records of badgers within 2km of the site, the nearest being 1.57km SE of the site.

The woodland was not fully assessed for badger activity but there have been no incidental sightings of badgers or evidence of, and the woodland is well-used for forest school. However, badgers are a highly mobile species, and will forage widely around their sett locations. The site offers good foraging habitat. Badgers can rapidly colonise new areas and the woodland and hedgerow offer opportunities for sett building, with the adjacent fields and wider landscape offering foraging and commuting opportunities.

The site is likely to have a local value for badgers.

3.3 **Species of Principal Importance in England**

This section considers those species listed by the Secretary of State, as required by Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 that are not covered in the preceding section. It should be noted that some of these species (formerly described as UK BAP species) do also receive legal protection, but not in a way that is considered relevant to this proposal. Furthermore,

some of the species in the preceding sections are also Species of Principal Importance in England (see sections 4.3 *et seq.*).

The site has the potential to support hedgehog, brown hare and common toad with a mosaic of habitats offering feeding, refuge, breeding and hibernation (hedgehog and common toad) habitat.

The site offers local value for these Priority species.

3.4 Other Wildlife Issues

With good conditions woodland, moderate condition ponds and a pollen & nectar mix present, this presents potential for an interesting invertebrate assemblage.

3.5 Wildlife and Countryside Act Schedule 9 Plants and Animals

Certain species listed within this Schedule have now become common and widespread (*e.g.* grey squirrel and muntjac deer) and are not dealt with here. Others, mainly plants but also including aquatic invertebrates, remain scarce in the wild, but threaten outward spread from gardens or established colonies in the wild.

There are local records of multiple plant species that come under this designation. These include Canadian waterweed, Nuttall's waterweed, Japanese knotweed, Himalayan balsam and rhododendron. Japanese knotweed, which is particularly invasive, has been recorded 1.1km SE of the site (2014).

3.6 Limitations of the Survey

The survey was undertaken at a sub-optimal time for recording many plant species. However, information from the landowner and a select number of species present were sufficient to accurately assess the habitats present on site.

This survey does not constitute a full and detailed invasive species search.

3.7 Summary of Results

- There is one statutorily designated site and seven non-statutorily designated sites within 2km of the site.
- There are no roosting opportunities for bats in the area proposed for the pond creation, there is moderate foraging, commuting and roosting suitability in the wider area.

- There are three ponds on site, an HSI assessment was undertaken to assess the suitability of the ponds for great crested newts, all ponds were judged to have average great crested newt suitability.
- Otter and water vole suitability is low but cannot be ruled out.
- The wider site has high suitability for reptiles and has several hibernacula present.
- There is low suitability for breeding birds.
- Badgers may use the adjacent woodland but no evidence was recorded.
- Hedgehog, common toad and brown hare which are recorded locally may use the site.

4. POTENTIAL IMPACTS AND ZONE OF INFLUENCE

The Zone of Influence (ZoI) is defined as “The areas/resources that may be affected by the biophysical changes caused by activities associated with a project” (CIEEM, 2018). The ZoI takes into account all areas for potential impacts as a result of this development. For example:

- Within the application site boundary and immediately adjacent habitats for direct impacts to valued ecological features (e.g. habitats and protected species).
- Within a 2km radius of the application site boundary for designated nature conservation sites which may be indirectly impacted as a result of the proposed development.
- Within 250m of the development site for great crested newts based on the small-scale of the proposal.

4.1 Potential negative impacts of works without appropriate mitigation

Table 4. Potential negative impacts of works

Ecological receptor	Impact without mitigation	Level of value	Scale of impact	Likelihood of impact without mitigation
Habitat	Small area of fallow arable field lost.	Site	Minor negative	Likely
Bats	Potential disturbance to commuting and foraging habitat.	Local	Minor negative	Unlikely
Great crested newt	Disturbance to GCN terrestrial foraging habitat.	Local	Minor negative	Unlikely
Otter	N/A	N/A	N/A	N/A
Water vole	N/A	N/A	N/A	N/A
Reptiles	Disturbance of potential reptile habitat during excavation.	Local	Minor negative	Unlikely
Breeding birds	Disturbance in vicinity of nests.	Local	Minor negative	Unlikely
Badger	Disturbance to potential foraging area.	Local	Minor negative	Unlikely
Priority species	Disturbance to foraging habitat for hedgehog, brown hare and common toad.	Local	Minor negative	Unlikely

Schedule 9 invasive species	Potential introduction of invasive species via planting within new pond.	Local	Negative	Probable
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4.2 Potential outcomes of works with appropriate mitigation and enhancements

Table 5. Potential positive impacts of works

Ecological receptor	Impact of works	Scale of impact
Habitat	Biodiversity of site will be increased by creation of pond (Priority habitat).	Major Positive
Bats	The addition of another pond, outside the woodland has the potential to attract a greater variety of bat species foraging on the flying insects attracted by the pond.	Positive
Great crested newt	The new pond will offer further breeding habitat and improve the ecological network and connectivity.	Positive
Water voles	The new pond will provide additional habitat.	Positive
Reptiles	The addition of the pond and bund creation will provide further habitat.	Positive
Breeding birds	The addition of a new pond will provide a water and food source.	Positive
Badger	The addition of a new pond will provide a water source.	Positive
Priority Species	The new pond will offer further breeding habitat and improve the ecological network.	Positive

5. RECOMMENDATIONS

The following recommendations are made on the assumption that the plans and proposals made available during the preparation of this report remain unchanged and, unless specified, are subject to the successful resolution of any planning application. Where further survey work is recommended that could be material to the planning application, it should be completed, and the results made available to the Local Planning Authority prior to any planning decision being made.

5.1 Habitats

There are habitats present on site that are already in good condition and of high distinctiveness, namely the woodland and hedgerow. It is important that these habitats are retained to their current condition and area, and not impacted upon by the creation of the pond. There are telegraph wires running directly over the pond site so care must be taken during the works to ensure excavators avoid coming into contact with them. The pond is proposed to be located at least 5m distance away from any of the ditch, woodland and hedgerow boundaries, so they will not be impacted by these works.

5.2 Bats

All works are proposed to take place during bat hibernation season. However, it is not uncommon for bats to forage intermittently throughout this period so in order to prevent any disturbance to bats, works must not take place at night. The work should not impact the adjacent hedgerow, ponds or woodland habitat, therefore no mitigation is required.

The creation of the pond will likely attract a high flying-invertebrate biomass of both terrestrial and aquatic invertebrates, thus providing not only a water source, but enhancing foraging opportunities for bats. The addition of this pond out in the open, as opposed to the existing woodland ponds, also offers opportunities for bat species which prefer open habitats for foraging.

5.3 Great crested newt

The ponds already present must be retained, and the proposed pond should meet the specification set out by Natural England in order to offer optimal habitat for breeding great crested newts.

It is recommended that the excavated spoil should be used to establish a low bund to the east of the pond, which great crested newts can use as a hibernaculum. It is also important to maintain the terrestrial habitat present, i.e. woodland and hedgerow, to provide the connectivity that will link great crested newts in the locality to this specific site.

5.4 Otter

No further survey work or monitoring is required due to a lack of evidence of otter on site.

5.5 Water vole

No further survey work is required, with habitat suitability being low and a lack of evidence of presence. The creation of the pond will offer further potential habitat for water vole.

5.6 Reptiles

No further survey work is required. The proposed pond location does not contain any features that would support hibernating reptiles and due to the fact that all excavation will take place during the hibernation season, no mitigation is required. The spoil from the pond is proposed to be used to create a low earth bund within the field. If this earth bund is layered over brash and existing deadwood and rubble from the site, it will create a further hibernaculum benefiting both reptiles and amphibians, as well as offering basking habitat.

5.7 Birds

There are no proposals to clear any trees or scrub to allow the creation of the pond, and all works will be undertaken outside of bird nesting season (March-August inclusive). Therefore, no mitigation is required.

5.8 Badger

Although there is suitable foraging habitat within the site, no evidence of badgers was found. The area proposed for pond creation is unlikely to be colonised by badgers, however, if any large holes open up within the base of the adjacent hedgerow prior to works commencing, these should be assessed by an appropriately qualified ecologist before works can proceed.

5.9 Species of Principal Importance in England

Hedgehogs may be hibernating in the woodland, but this area is not being impacted by the works.

5.10 Other wildlife

Other species that could benefit from the works are common frog, various odonata species as well as other aquatic invertebrates. It would be useful to monitor the pond for presence of species such as these as an indicator of how valuable and healthy a habitat this site is, in the long term.

5.11 Schedule 9 Plants and Animals

The ponds should be left to naturally colonise with plants without any artificial introductions.

6. REFERENCES

- ARG UK (2010). *ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index*. Amphibian and Reptile Groups of the United Kingdom
- CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester
- Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*. The Bat Conservation Trust, London.
- Natural England (2020). *Natural England-led District Level Licensing: Impact Assessment, Compensation and Case Studies*, Natural England
- Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. British Birds 114: 723-747
- The British Standards Institution (2013). *BS42020:2013 Biodiversity – Code of practice for planning and development*. BSI, London
- UKHab Ltd (2023). UK Habitat Classification version 2 (at <https://www.ukhab.org>)

7. APPENDIX 1. PHOTOGRAPHS



Proposed pond location within fallow arable field

8. APPENDIX 2. STATUTORILY DESIGNATED SITES CITATIONS

Holton Pit SSSI - [SSSI detail \(naturalengland.org.uk\)](https://naturalengland.org.uk) (Accessed on 04th December 2023)

9. APPENDIX 3. POND SPECIFICATIONS AS SET OUT BY NATURAL ENGLAND

Suffolk Wildlife Trust will excavate ponds for the benefit of Great Crested Newts to the specifications set out by Natural England under the District Level Licencing scheme. Generally, these ponds will meet the following criteria:

- Surface area between 100m² and 1000m²;
- Maximum central depth of 1m to 3.5m;
- Bank gradients of 1:10, or ideally 1:20;
- A range of depths across the pond;
- Pond must hold water throughout at least one summer in every three years;
- Substantial cover of submerged and marginal vegetation (about 66% submerged plant cover and 25% to 50% emergent/floating vegetation cover);
- Areas of open water;
- Located in areas of good quality terrestrial habitat;
- Terrestrial buffer zone of at least 3m around each pond;
- Diverse populations of invertebrates;
- Ponds in clusters (within 250m generally), rather than in isolation;
- Absence of shading on the south side
- Absence of fish;
- Absence or low density of waterfowl;
- Good water quality, with negligible run-off from agriculture and roads.

10. APPENDIX 4. LEGAL CONSIDERATIONS

Introduction

The National Planning Policy Framework (NPPF) states that the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity. Government Circular 06/2005 'Biodiversity and Geological Conservation – Statutory obligations and their impact within the planning system' (which is still live following the publication of the NPPF) states in paragraph 99: "It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision."

The NERC Act 2006 imposes an obligation on all public bodies, including local authorities, to have regard to the conservation of biodiversity, particularly of those species and habitats identified as being of principal importance. Section 41 of the Act requires a list to be published that identifies such species and habitats, and for England these are now referred to as Species and Habitats of Principal Importance in England.

The impact assessment and recommendations set out below are based on professional experience and available guidelines. While there is some interpretation of current legislation on this basis, it should be noted that the authors do not have legal training. In the case of any uncertainty it is recommended that a specialist environmental lawyer be consulted.

The contents of this report should not be taken to indicate support of any planning application or subsequent development, on the part of SWT Trading Ltd; Wilder Ecology or its parent company, Suffolk Wildlife Trust. Suffolk Wildlife Trust reserves the right to object to, or comment upon, any planning application that may arise on this site should any unacceptable wildlife impacts remain unresolved or should any relevant planning policies be compromised.

Habitats

The Conservation of Habitats and Species Regulations 2017 (as amended) enshrine the EU Birds Directive (The European Community Council Directive on the Conservation of Wild Birds (2009/147/EC)) and EU Habitats Directive (The European Community Council Directive on the Conservation of Natural Habitats of Wild Fauna and Flora (92/43/EEC)) into English law, with Natural England as the appropriate nature conservation organisation for England. Ramsar sites are wetlands of international importance designated under the Ramsar Convention. Special Protection Areas (SPA) and Special Areas of Conservation (SAC) (Natura 2000 sites) are defined in the regulations as a 'European site'. The Regulations define competent authorities, if a plan or project is likely to have a significant effect on a European site the competent authority

is required to make an appropriate assessment of this effect in accordance with the requirements of the Regulations.

Sites of Special Scientific Interest (SSSIs) give legal protection to the best sites for wildlife and geology. Natural England holds responsibility for identifying and protecting SSSIs in England under the Wildlife and Countryside Act 1981 (as amended). Where public bodies request to carry out operations on a SSSI which have been identified as potentially damaging the special interest features of the SSSI, then assent under 28H of the Act is required.

County Wildlife Sites (CWS) are a non-statutory designation which is recognised by the National Planning Policy Framework and all Suffolk Local Planning Authorities within their Planning Policy.

Species/ group	Legislation/level of protection	Offences	If work required:
GCN	Full Protection under: The Conservation of Habitats and Species Regulations 2017 (as amended) <i>and</i> Wildlife and Countryside Act 1981 (as amended)	- to deliberately capture, kill or injure great crested newts; - to damage or destroy a breeding site or resting place used by great crested newts; - to deliberately disturb great crested newts in a way that is likely to impair their ability to migrate, hibernate, survive or reproduce, or in a way that is likely to affect significantly their local distribution or abundance; - to intentionally or recklessly disturb great crested newts while they are occupying a place of shelter or protection, or attempt to do so; - to intentionally or recklessly obstruct access to any place of shelter or protection, or attempt to do so.	Any work that would otherwise result in one of these criminal offences must be carried out under a licence issued by Natural England. Guidelines produced by English Nature (which is now Natural England) state that any development work within 500 metres of a breeding pond should be carried out under a licence from Natural England, if it is likely that the population in the pond will be affected. Damage to or destruction of breeding sites and resting places is an absolute offence and so there is no defence available within the law, even if the persons involved were not aware of a habitat's use by these animals. Courts will have regard to whether or not the impact could have been reasonably avoided in deciding upon a sentence. In all cases the risk of an offence occurring can be minimised by taking all reasonable precautions, as set out in available guidance.
Bats	Full Protection under: The Conservation of Habitats and	- to deliberately capture, kill or injure any bat; - to damage or destroy a breeding site or resting place used	Any work that would otherwise result in one or more of these criminal offences must be carried out under a Natural England licence.

	Species Regulations 2017 (as amended) <i>and</i> Wildlife and Countryside Act 1981 (as amended)	by bats (whether bats are in it at the time or not); • to deliberately disturb bats in a way that is likely to impair their ability to migrate, hibernate, survive or reproduce, or in a way that is likely to affect significantly their local distribution or abundance; • to intentionally or recklessly disturb bats while occupying a place of shelter or protection, or attempt to do so; • to intentionally or recklessly obstruct access to any place of shelter or protection, or attempt to do so.	Damage to or destruction of breeding sites and resting places is an absolute offence and so there is no defence available within the law, even if the persons involved were not aware of a habitat's use by these animals. Courts will have regard to whether or not the impact could have been reasonably avoided in deciding upon a sentence. In all cases the risk of an offence occurring can be minimised by taking all reasonable precautions, as set out in available guidance.
Otter	Full Protection under: The Conservation of Habitats and Species Regulations 2017 (as amended) <i>and</i> Wildlife and Countryside Act 1981 (as amended)	• to deliberately capture, kill or injure any otter; • to damage or destroy a breeding site or resting place used by otters (whether they are in it at the time or not); • to deliberately disturb otters in a way that is likely to impair their ability to hibernate, survive or reproduce, or in a way that is likely to affect significantly their local distribution or abundance; • to intentionally or recklessly disturb otters while occupying a place of shelter or protection, or attempt to do so; • to intentionally or recklessly obstruct access to any place of shelter or protection, or attempt to do so.	Any work that would otherwise result in one or more of these criminal offences must be carried out under a Natural England licence.
Hazel Dormouse	Full Protection under: The Conservation of Habitats and Species Regulations 2017 (as amended) <i>and</i> Wildlife and Countryside Act	• to deliberately capture, kill or injure any dormice; • to damage or destroy a breeding site or resting place used by dormice (whether they are in it at the time or not); • to deliberately disturb dormice in a way that is likely to impair their ability to hibernate, survive or reproduce, or in a way that is likely to affect significantly their local distribution or abundance;	Any work that would otherwise result in one or more of these criminal offences must be carried out under a Natural England licence. Damage to or destruction of breeding sites and resting places is an absolute offence and so there is no defence available within the law, even if the persons involved were not aware of a habitat's use by these animals. Courts will have regard to whether or not the impact could have been reasonably avoided in deciding upon a

	1981 (as amended)	- to intentionally or recklessly disturb dormice while occupying a place of shelter or protection, or attempt to do so; - to intentionally or recklessly obstruct access to any place of shelter or protection, or attempt to do so.	sentence. In all cases the risk of an offence occurring can be minimised by taking all reasonable precautions, as set out in available guidance.
Water vole	Full Protection under: Wildlife and Countryside Act 1981 (as amended) - Schedule 5	- to intentionally kill, injure or take water voles; - to intentionally or recklessly damage, destroy or obstruct access to places used by Water Voles for shelter or protection (<i>i.e.</i> their burrows); - to intentionally or recklessly disturb water voles while occupying a place of shelter or protection.	The Act does not include a provision for a licence to be granted for offences involving water voles as a result of the proposed works, but there is a defence in the Act that permits otherwise illegal actions if they are the incidental result of a lawful operation and could not reasonably be avoided. To use this defence it would be necessary to demonstrate that all reasonable measures had been taken in an effort to avoid the impact. This would mean considering alternative development plans, undertaking precautionary measures and carrying out appropriate mitigation work.
Reptiles	Part Protection under: Wildlife and Countryside Act 1981 (as amended)	Intentionally kill or injure any reptile	There is no licensing system for reptiles, but there is a defence in the Act that permits otherwise illegal actions if they are the incidental result of a lawful operation and could not reasonably be avoided. For this defence to be used in a court of law it would be necessary to document and carry out a series of precautions and mitigation measures that seek to avoid the offence from being committed.
Birds	Varying Protection under: Wildlife and Countryside Act 1981 (as amended)	- Intentionally kill or injure any wild bird; - Intentionally take damage or destroy the nest of any wild bird included in Schedule 1 (whether or not it is active); - Intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built; - Intentionally take or destroy the egg of any wild bird; - Intentionally or recklessly disturb any bird species included in Schedule 1 of the Act while it is	Schedule 1 of the Act includes certain rare or threatened species. Licences to permit these offences can only be granted by Natural England for reasons of preserving public health or public safety.

		building a nest, or is in, on or near any nest containing eggs or young; • Intentionally or recklessly disturb the dependent young of any bird included in Schedule 1.	
Badger	Part Protection under: Protection of Badgers Act 1992	• to wilfully kill or injure a badger, or attempt to do so; • to intentionally or recklessly damage, destroy or obstruct access to a sett; • to intentionally or recklessly disturb a badger when occupying a sett; unless the action was the incidental result of a lawful operation and could not reasonably have been avoided.	Potentially unlawful activities can be made legal if they are covered by a licence, issued by Natural England.

Species of Principal Importance in England

Although the majority of Species of Principal Importance in England receive no direct legal protection, the Natural Environment and Rural Communities (NERC) Act 2006 places an obligation on local authorities to have regard to their conservation and this is most obviously brought to bear through their planning control functions. As such, the presence of such species can be a material consideration to a planning decision. Beyond this development control function, it is good practice for any land manager to adhere to the underlying nature conservation principles.

In addition to their aforementioned protection, the following species are listed as Species of Principal Importance in England; great crested newt, bats which occur regularly in Suffolk including barbastelle, noctule, soprano pipistrelle and brown long-eared, brown hare, hazel dormouse, harvest mouse, otter, water vole, white-clawed crayfish and all species of reptile.

Schedule 9 Plants and Animals

The Wildlife and Countryside Act 1981 (as amended) makes it an offence, amongst other things, to:

- plant or otherwise cause to grow in the wild any plant that is included in Part II of Schedule 9;
- to release or allow to escape into the wild any animal which is of a kind which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state, or is included in Part I of Schedule 9 of the Act.

There is a defence available if it can be proven that all reasonable steps were taken to avoid the offence and due diligence was exercised.