Wakelyns, Fressingfield

Proposal for the creation of two ponds with adjacent low earth bunds

PRELIMINARY ECOLOGICAL APPRAISAL

September 2022

Project no.	***Report***	***Date***
069/2022	Draft	28th September 2022
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Suffolk Wildlife Trust on behalf of Natural England

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

As part of the District Level Licencing (DLL) strategic approach to great crested newt conservation, Suffolk Wildlife Trust have been contracted by Natural England for the creation of new ponds in Suffolk.

The land within the grounds of Wakelyns, Fressingfield has been selected as an appropriate area to create two ponds due to its existing breeding pond and its good quality terrestrial habitat of rough grassland and hedgerows, along with records of great crested newts in the surrounding area.

This report constitutes an ecological assessment of the site, the potential impacts upon protected and/or Priority species and recommendations to mitigate these impacts.

The proposed development site is poor semi-improved grassland and arable land. There is one statutorily designated site and 5 non-statutorily designated sites within 2km. The hedgerows surrounding the site are classed as 'important' hedgerows (Hedgerows Regulations 2007) and Priority Habitat and offer nesting opportunities for farmland and hedgerow birds. These hedgerows will be unaffected by the proposals. Turtle dove and yellowhammer are breeding on the site and barn owl are known to forage over the site.

There are three existing ponds on the wider site, two of which may also be classed as Priority Habitat (NERC Act 2006) and will be unaffected by the proposals. One of these ponds is known to support great crested newts but the other, which is closer to the development, scores as **below average** on HSI assessment. The third pond is a garden pond associated with the farmhouse and is seasonally dry between April and winter. Two mature oak trees on site have the potential to support roosting bats and the network of hedgerows, ponds and open grassland provide excellent commuting and foraging habitat. Evidence of badger activity was not found during the site visit, but it is possible that they could colonise the site in the future. The site may also support Priority species such as hedgehog, brown hare, harvest mouse and common toad.

This proposal is likely to have positive impacts upon the habitats and species present offering further water sources and habitats for species such as GCN, common toad and turtle dove, which are known to breed on site. Limiting the timings of the works will prevent possible impacts upon bats and nesting birds and precautionary methodology is recommended to safeguard hibernating GCN and reptiles, and UK Priority species including common toad and hedgehog.

1. INTRODUCTION

1.1 General Introduction

District level licencing is a new strategic approach which will lead to an increase in suitable habitat and improved conservation status for great crested newts. It focuses conservation effort where it will create maximum benefit. Instead of developers carrying out surveys and mitigation measures within their development sites, the scheme provides opportunity for habitat compensation to be provided elsewhere in the district so that local conservation status can be maintained.

Suffolk Wildlife Trust are a sub-habitat delivery body contracted by Natural England to undertake the identification of suitable locations and the subsequent creation of new ponds in Suffolk.

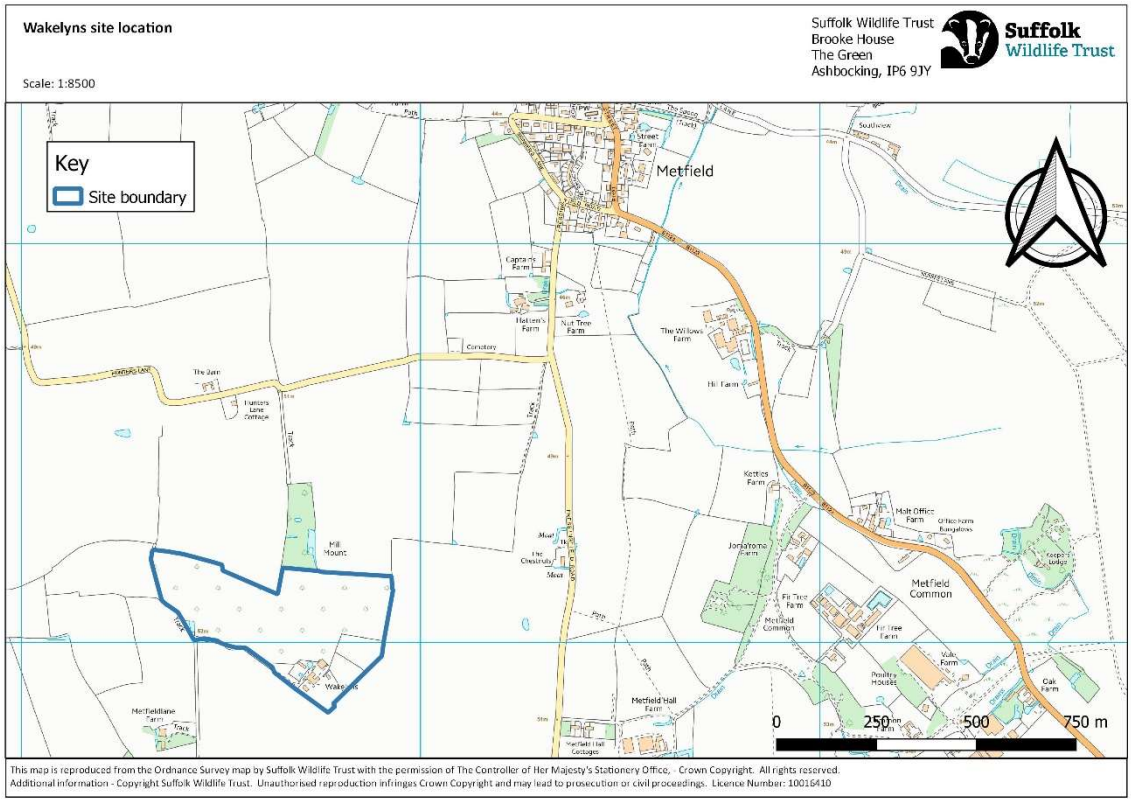
This report has been prepared by Suffolk Wildlife Trust's ecological consultancy, Wilder Ecology, and represents an assessment of the potential impacts (both positive and negative) on wildlife that would result from the creation of two ponds and associated bunds on land at Wakelyns, Fressingfield.

1.2 Location and Description of Site

Wakelyns organic rotation agroforestry farm is located in Mid Suffolk, south-west of Metfield and to the north-east of Fressingfield, with a central grid reference of TM 28744 78945. The overall farm is approximately 22.7ha, but only the eastern-most section within the wider site boundary (Figure 1) is included in this proposal, referred to as 'the site' hereafter, which occupies an area of approximately 2.62ha.

The site is mainly comprised of a diverse range of agroforestry tree lines and crops, with two grass dominated fields in the east of the site. The entire site is enclosed by a species-rich hedgerow and contains 2 permanent ponds a seasonal pond and seasonally wet ditch. The farm buildings include a farmhouse, timber framed barn and a number of outbuildings.

Figure 1. Site location

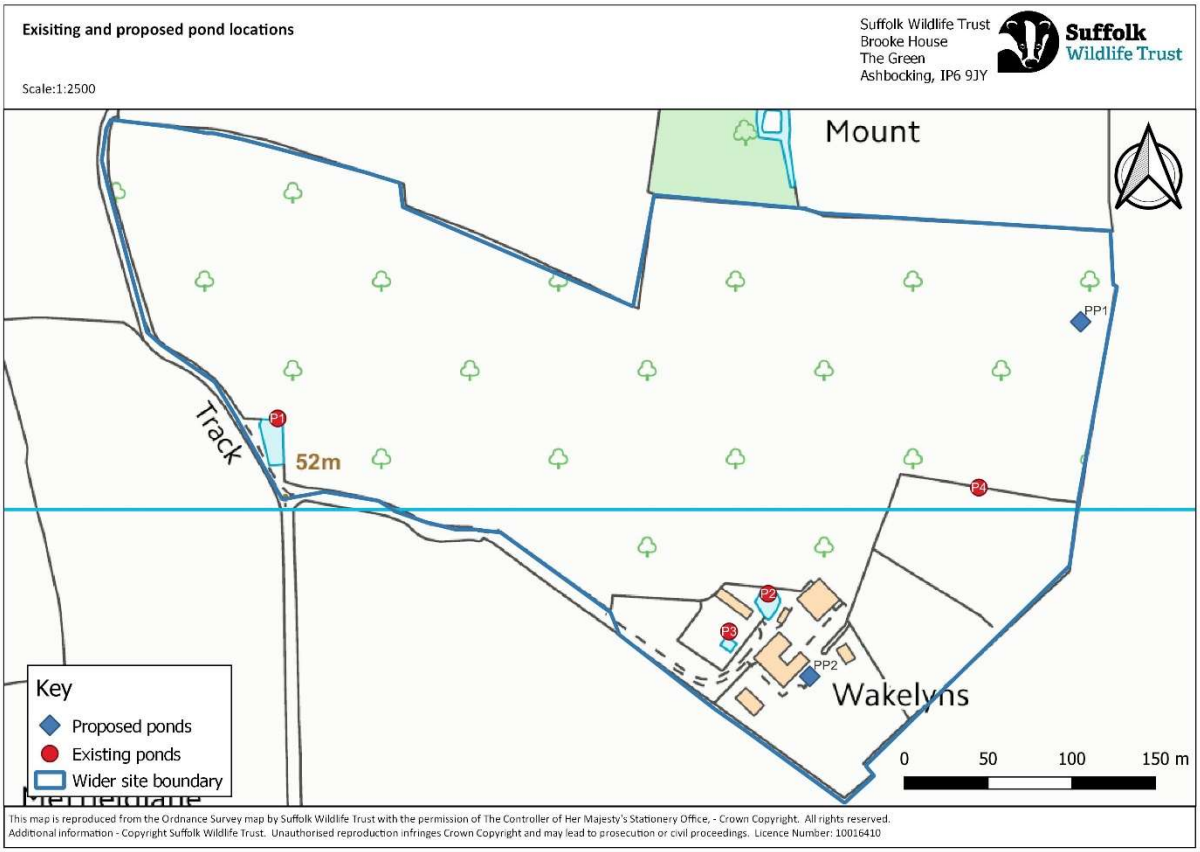


1.3 Outline of Proposed Works

Two ponds are proposed to be dug at Wakelyns at the approximate locations detailed on Figure 2. Proposed Pond 1 will be located to the east of the farm buildings, in an area believed to have been an historic pond (TM 287 788) and a disused arable stretch between active hazel coppice will support Proposed Pond 2 (TM 289 791). Exact sizes will be determined upon completion of archaeological works. 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 bunded onsite in low non-compacted bunds adjacent to the proposed pond areas. Any additional material will be disposed of by spreading on agricultural land in accordance with a U10 waste exemption licence.

Opportunities to create suitable hibernation sites for GCN within these bunds, by including woody material, will be realised onsite where possible. Detailed drawings of the ponds and bunds are not available due to the purpose of the project being to create the best possible habitat within the constraints of conditions onsite.

Figure 2. Locations of proposed ponds and existing ponds within property boundary



Works will be carried out with a 360° excavator only and will be completed before the end of March 2023. Works are expected to take no more than two weeks. Existing entrances to the fields will be used and no temporary access roads or compound areas are to be constructed. These proposals fall outside of the Town and Country Planning Act EIA Regulations (2011) being less than 2ha in overall area.

The site lies within the Mid Suffolk District Council, which is now joined with Babergh District Council as Babergh Mid Suffolk District Council. The Mid Suffolk District Council Core Strategy Development Plan, adopted September 2008 (Updated December 2012), Policy CS5: Mid Suffolk's Environment, Mid Suffolk Local Plan (1998) and Joint Babergh and Mid Suffolk District Council Landscape Guidance (August 2015) are relevant to this application.

In addition, National Planning Policy Framework (NPPF) 2021, Chapter 15: Conserving and Enhancing the Natural Environment, paragraph 174. (d) states the requirement that:

> "Planning policies and decisions should contribute to and enhance the natural and local environment by… minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;"

which is particularly relevant to this proposal, along with paragraph 179. (b) which states that in order to protect and enhance biodiversity and geodiversity, plans should:

> "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 gains for biodiversity."

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 24 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 SWT Trading Ltd. prior to any work commencing on site so that the advice herein can be revised, if necessary.

2. SURVEY METHODOLOGY

Before the site visit, a desktop search was undertaken using information provided by Suffolk Biodiversity Information Service (SBIS) to assess likely habitat features, sites with conservation designations and existing records of legally protected species within two kilometres of the proposed development site.

A site visit was made on 26th August 2022 by Jill Wyllie. Weather conditions were dry and sunny with a moderate breeze and approximately 40% cloud, with a temperature of 23°C. Habitats on the site were mapped in line with the Phase 1 Habitat survey methodology (JNCC, 2010). 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 Phase 1 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.* great crested newts and badgers) living beyond the immediate boundary of the property could be potentially affected by the development proposal.

Site appropriate 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;

- 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 (Eaton *et al.* 2015) or other significant assemblages;
- Badger – search for setts, pathways, footprints, holes, latrines, hairs;
- 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), 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 either 'certain' (95% probability or higher), 'probable' (50% to 94%), 'unlikely' (5% to 49%) or extremely unlikely (less than 5%). A combination of these factors can then be used as a guide to determining appropriate mitigation.

2.1 Competence

Jill Wyllie, BSc Hons, ACIEEM is experienced in habitat assessment, and surveying for badgers, reptiles, bats, water voles and great crested newts (holds a Natural England Mitigation Class Licence and survey licence for the latter two respectively). She is also competent in GIS mapping and has experience of surveying for freshwater and terrestrial invertebrates, birds, otters and hazel dormice. She holds a CSCS card (Construction Skills Certification Scheme - UK).

This project is being overseen by Dr Simone Bullion BSc PhD MCIEEM. She is the consultancy manager for the consultancy of Suffolk Wildlife Trust (SWT Trading Ltd). She has over 25 years of experience in this role and her specialist skills include management of a wide range of projects of varying size and complexity, protected species surveys, site assessment and extended Phase 1 surveys, ecological training and guidance. She is the author of several publications and holds Natural England survey licences for bats, hazel dormouse and great crested newts, and a Class Licence for water vole mitigation. Simone has a good knowledge of the land use planning process and holds a CSCS card (Construction Skills Certification Scheme - UK).

2.2 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.

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 a snap shot in time, rather than providing a comprehensive analysis of the site's ecology.

3. RESULTS

3.1 Habitat

3.1.1 Habitat Description

This site is one of the longest-established and most diverse agroforestry sites in the UK (Wakelyns, 2020). It contains a mixture of sunny rides and shaded areas, offering niche habitats and excellent structural diversity, whilst still retaining its purpose as a working farm. Species-rich hedgerow with trees encloses the site and on the eastern and southern boundary it is associated with a ditch, located on the neighbouring land.

The arable fields surrounding the site contain a mix of cereal and vegetable crops.

Poor semi-improved grassland

The area for the siting of Proposed Pond 1 (shown on Figure 2) is currently an area of poor semi-improved grassland dominated by cock's foot, Yorkshire fog and false oat grasses and ruderals such as common nettle, creeping thistle and broad-leaved dock. This area was chosen due to it being a likely footprint of an historic pond; the presence of more 'greenery' within the vegetation indicates more damp conditions than in the surrounding dry and yellowing grasses. There is also a small willow tree on the western edge of the pond footprint, again indicating wet ground conditions. The site often floods in this area over winter (*pers comm*, David Wolfe, Landowner).

Arable

Proposed Pond 2 is to be sited on an ex-arable strip between two rows of predominantly hazel coppice, which also contain field maple, blackthorn and dog rose (shown on Figure 2). They are coppiced every 7 years on rotation. The ground of the strip has been out

of arable production for at least 3 years and contains a mix of false oat, red fescue, cock's foot and Yorkshire fog grasses with red and white clover, bird's foot trefoil, lesser trefoil, germander speedwell, ragwort, bristly ox-tongue, spear thistle and broad-leaved dock. This is likely a remnant of the crop rotation planting of nitrogen-fixing clover and trefoil seed mixes. It has been kept short mown and was very dry at the time of survey. The pond will be located centrally with a stand-off of 2m to allow machinery around to coppice the tree rows.

Species rich hedgerow with trees

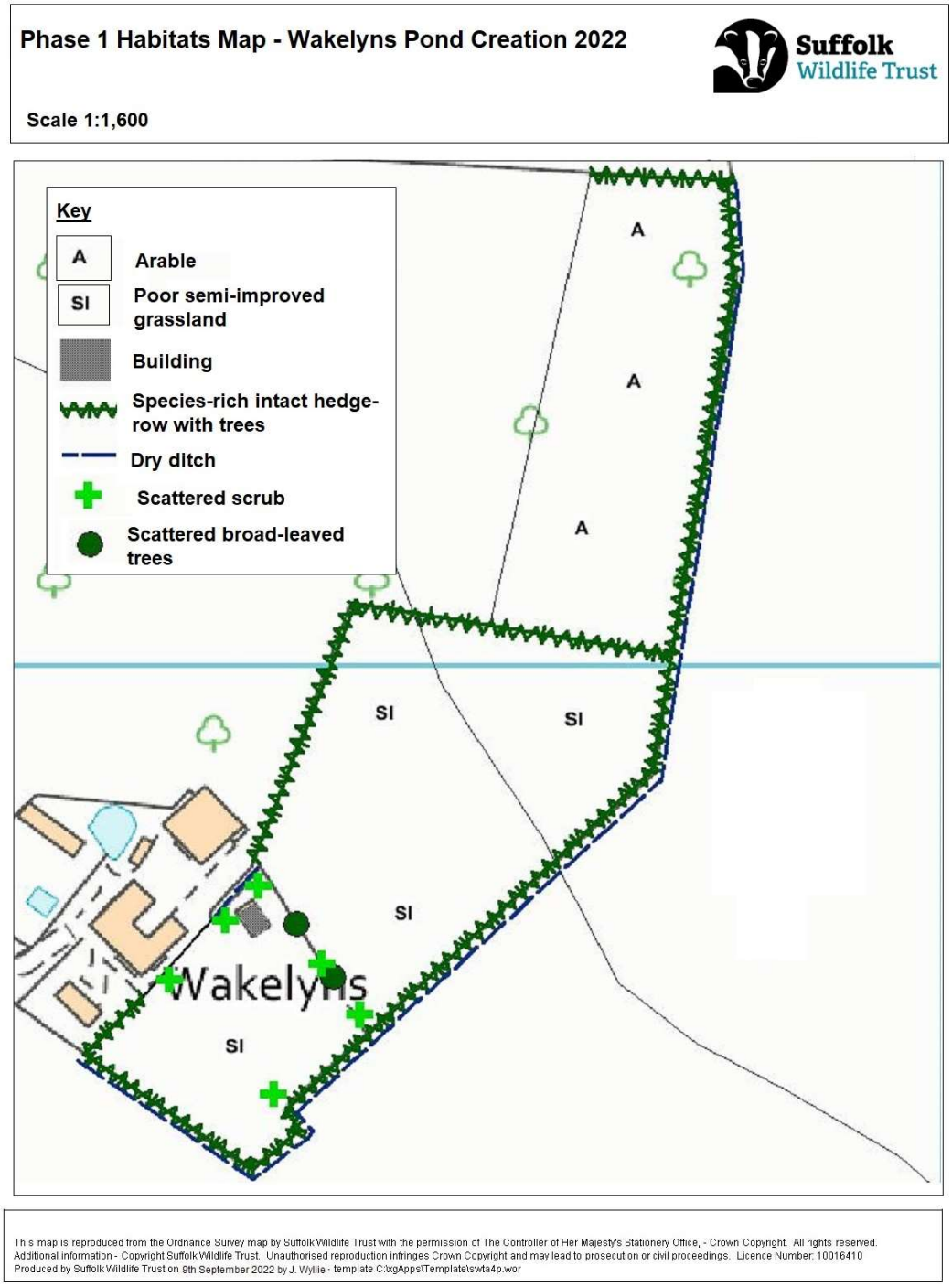
Around the perimeter of the site there is a species rich hedgerow comprised of blackthorn, hawthorn, field maple, hazel, elm, elder, dogwood, willow sp., various apple species, bramble, dog rose and ivy. There are also mature trees associated with this hedgerow including oak, ash, hornbeam and poplar.

Dry ditch

A seasonally wet ditch is present through the hedgerow which runs along the eastern and southern boundaries of the site, as well as following the hedgerow through the centre of the site and along the western boundary towards the location of Proposed Pond 1.

A wider area of ditch is located within the central hedgerow (marked P4 on Figure 2). It has shallow banks and no emergent vegetation. However, there is some flora which favour damp conditions around the edges such as hard rush, false fox sedge, hairy willowherb and curled dock. The whole length of the ditch, including the wider area was completely dry at the time of survey.

Figure 3. Phase 1 Map



Ponds

There are three existing ponds within the site (as shown on Figure 2, marked as P1 , P2 and P3) and a seasonally wet ditch P4. None of the ponds are within the boundary of the area for the two new Proposed Ponds but are included here due to the nature of this proposal.

Existing pond 1 (P1) is located on the western edge of the site. It has been recently extended and cleared by Suffolk Wildlife Trust as part of the DLL project in 2021. It contains a good range of submerged and emergent vegetation such as water mint, fool's watercress, gipsywort and water dock.

Existing pond 2 (P2) is close to the farmhouse and has deep water with some yellow flag iris on one edge. The pond is surrounded with bramble scrub.

The third existing pond (P3) is a garden pond associated with the farmhouse and is dry from April until the winter months. It is surrounded by blackthorn and bramble, is heavily shaded and was completely dry at the time of survey.

Scattered broad-leaved trees and scrub

As well as the trees within the agroforestry scheme and those associated with the surrounding hedgerow, there are 2 mature oaks which lie centrally in the southern area of poor semi-improved grassland. Some elder and willow scrub is also present in the southern-most area.

3.1.2 Habitat Assessment

There is one statutorily designated site within 2km of the site. Metfield Meadow SSSI and Suffolk Wildlife Trust Reserve, Winks Meadow lie 1.5km to the north-east of the site. Metfield Meadow is a species-rich unimproved meadow on chalky boulder clay, containing species such as green winged orchid, quaking grass, adder's tongue, pepper saxifrage and hoary plantain.

There are 5 non-statutorily designated sites as shown in the table below:

Table 1. Non-statutory designated sites within 2km

Distance/ direction	**Name and Designation (all Mid Suffolk)**	**Description**
1km SW	CWS 196/RNR 204	Boulder clay flora
1.2km SW	CWS 63 Bush Wood	Ancient woodland

1.55km N	CWS 102 Turkey Hall Meadows	Species-rich grassland
1.66km NE	CWS 103 Mill Lane	Species-rich grassland and hedgerow
1.67km W	CWS 172/RNR 43	Good sulphur clover population

The Hedgerow Regulations 1997 define 'important' hedgerows as those with seven woody species, or six woody species plus other defined features in a 30m length. Important species-rich hedgerows support a greater diversity of plants and animals and can be a historic feature of the landscape. On this basis, the hedgerow described above meets the 'important' hedgerow criteria under the Hedgerow Regulations 1997 and is classed as Priority Habitat under the JNCC National Biodiversity Action Plan criteria.

Ponds are a UK and Suffolk Priority Habitat and these features are likely to be of value at a 'parish' level.

There are records of Suffolk Rare Plants in the area including green winged orchid, hoary plantain, quaking grass, sulphur clover, spiny restharrow, corn mint, dwarf spurge, treacle mustard, frog orchid and black poplar. Other notable plants include bee orchid, common spotted orchid, common twayblade and southern marsh orchid.

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 Great Crested Newts

Two ponds were assessed using the HSI criteria (P1 and P2), as both pond P3 and the ditch area P4 were dry at the time of survey (see Figure 2 for locations).

Existing Pond 1 is located on the western edge of the site. It was recently extended and cleared and contains submerged and emergent vegetation suitable for great crested newt egg laying. Great crested newt eggs were noted during an earlier visit to the site

on 4th May 2022, when an eDNA sample was taken. It scores as having **excellent** suitability to support great crested newts.

As the site is known to support great crested newts and the area to be impacted has the potential to support them whilst in their terrestrial phase, Natural England's Rapid Risk Assessment for Great Crested Newts was consulted. This tool is located within the Method Statement Template for Great Crested Newt Mitigation Licence. Based on the area being affected, the tool indicates that the risk of an offence being committed is highly unlikely, but non-licenced avoidance measures can also be used to further minimise any chance of impacts.

Pond 2 is close to the farmhouse and has deep water but limited egg laying opportunities. It is also fairly shaded. It may be used transiently by GCN but it has poor breeding habitat and scores **below average** suitability.

Table 2. HSI scoring

Pond	**Pond 1**	**Pond 2**
Geographic location	1	1
Pond Area	0.8	0.4
Permanence	0.9	0.9
Water Quality	1	0.33
Shade	1	0.6
Waterfowl	0.67	0.67
Fish	1	0.33
Pond count	1	1
Terrestrial habitat	1	1
Macrophytes	0.55	0.3
Score	0.87	0.59
GCN Suitability	**Excellent**	**Below average**

There are also eight records of GCN within 2km of the site. The siting of Proposed Pond 2 is unlikely to have any impact upon GCN in hibernation as it is within an area of short-mown ex-arable land with quite compacted ground. The siting of Proposed Pond 2 is in an area which floods in the winter months, so hibernation here is also unlikely. However, directly adjacent Proposed Pond 1, there are currently storage piles of pipes and other hardware which may be attractive to hibernating GCN. There is also a small willow tree, which is sited within the area prone to flooding in the winter months, therefore it is unlikely to support hibernating newts around its root area.

The ponds are to be maintained for a period of 25 years following completion with suitable monitoring to ensure they remain suitable for great crested newts. The legislation protecting great crested newts largely arose from the Habitats Directive, which aims to restore scheduled species to a favourable conservation status. This proposal will result in permanent long-term habitat improvement for great crested newts and several other groups.

The population of GCN on this site is likely to be of 'local' level value.

3.2.2 Bats

The two mature oaks within the field were assessed using the Good Practice Guidelines as outlined in Table 3. below:

Table 3. Guidelines for assessing potential suitability for bats (Collins, 2016)

Suitability	**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 and/or suitable surrounding habitat to be used on a regular basis by large numbers of bats (i.e.	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.

	unlikely to be suitably for maternity or hibernation). 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.	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 or tree with one or more potential roosting sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. 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 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 broad-leaved woodland, tree-lined water courses and grazed parkland. Site is close to and connected to known roosts.

The two large oak trees separating the two fields in the east of the site contained rot holes and some stag-horned branches which could potentially support roosting bats. There is also some ivy cover, which can often support day roosting bats. These trees therefore have a **moderate** suitability to support small numbers of roosting bats.

The hedgerows and rows of agroforestry trees offer **moderate** suitability for foraging and commuting bats, with excellent connectivity and high invertebrate abundance associated with the water bodies. The lack of pesticide application will also result in a high invertebrate biomass. The only limitation is the relative isolation of the site from

the wider suitable environment, otherwise this site would be classed as having high suitability.

There are records of several bat species within 2km of the site. The species include Nathusius's, common and soprano pipistrelle along with some unidentified pipistrelle sp., brown long-eared, noctule, Natterer's, Daubenton's, serotine, Leisler's and Western barbastelle.

The population of bats present or foraging/commuting around this site would most likely be valuable at a 'parish' level with a low number of roosting, perching or mating common species.

3.2.3 Reptiles

Although the habitat within the site is suitable for reptiles, with varying sward heights, scrubby hedgerow, brash piles, ponds and open ground, the site is subjected to high levels of disturbance with the rotational nature of the crop and combined with the small 'field' areas it is unlikely that a population of reptiles would establish here. The site is also fairly isolated with large arable fields on all boundaries.

It is possible that the occasional grass snake may use this site, but not likely in significant numbers.

There are no records of reptiles within 2km of the site.

If any reptiles are present, it is likely that they would be of 'site' level value.

3.2.4 Birds

Suitable nesting habitat is present in the mature trees and hedgerows around and within the site, including the diverse range of agroforestry rows. There are also several bird boxes erected on trees around the site. The fields offer excellent foraging habitat

for barn owl, which have been recorded locally throughout the years. Barn owls are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).

Breeding bird surveys of this site were undertaken by the SWT Farmland Advisor in 2020, and these highlighted the present of breeding turtle dove, yellowhammer (both Red List), willow warbler and bullfinch (both Amber List). Four pairs of turtle dove bred on site in 2022 (*pers comm*, David Wolfe, Landowner).

Other bird species associated with hedgerows and farmland are likely to be present at peak times such as yellowhammer and lapwing. The small field sizes and surrounding hedgerows offer sub-optimal nesting sites for ground nesting birds such as skylark, but grey partridge may be present.

There are several Red Listed birds recorded within 2km, such as lapwing, turtle dove, house martin, fieldfare, greenfinch, spotted flycatcher house sparrow, skylark, starling, swift, grey partridge, linnet, yellow wagtail, cuckoo and yellowhammer. And Amber Listed birds including dunnock, song thrush, reed bunting, wren, willow warbler, whitethroat, bullfinch, moorhen, common gull, kestrel, tawny owl and rook.

This assemblage would likely be of value at a 'local' level.

3.2.5 Badgers

Although there are no existing records of badger within 2km of the site, the landowner has captured footage of them on a trail camera erected on the entrance track to the farm. No setts were discovered during the survey and no obvious signs of activity, such as latrines were noted but there are a number of blocks of woodland in the area, including Mill Mount, immediately north of the site, which may support a sett. They are likely to use the organic farm site for foraging.

The population is likely to have a 'local' value.

Badgers are highly mobile and may colonise new areas relatively quickly, it is therefore not possible to rule out badger sett building on site in the future.

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.*).

This site has the potential to be used by hedgehog for foraging, refuge and hibernation. Harvest mice are likely to be present amongst the longer grassland and brown hare were noted in almost every crop row during the survey. Common toad could be present using the hedgerows and ditches as terrestrial habitat.

There are records of hedgehog, small heath butterfly, latticed heath and shaded broad-bar moths within 2km.

The assemblage of Priority species would likely have 'local' level value.

3.4 Other Wildlife Issues

As this is an organic farm, with no pesticide spraying and a strong focus on attracting pollinators, there is likely to be a diverse assemblage of common and widespread invertebrate species and may also support some rarities. The boundary hedgerow contains fallen deadwood which will support saprophytic invertebrates. Amphibians listed on Schedule 5 of the Wildlife and Countryside Act 1981, common frog and smooth newt have been recorded within 2km of the site and are also likely present within the site. Schedule 9 prohibits the intentional killing, injuring or taking of species listed in Schedule 5, also prohibiting possession and trading.

Although this site has suitable hedgerow habitat and good connectivity to other suitable habitats, it is highly unlikely that dormice will be present. Dormice have only been recorded across the centre and south of Suffolk, with the majority of records occurring in the Stour Valley. There are no records as far north as the location of this site, including no records for Norfolk. This species will not be considered further in this report.

There are no suitable habitats on site for water vole, otter or white clawed crayfish and no records of these species exist within 2km of the site. These species will not be considered further in this report.

3.4.1 Wildlife and Countryside Act Schedule 9 Plants and Animals

There were no Schedule 9 Plants or Animals detected on this site. However, within 2km, yellow archangel, New Zealand pigmyweed, Japanese rose and Virginia creeper have been recorded.

3.5 Limitations of the Survey

This survey was undertaken at an optimal time of year for most species groups. Although the parched conditions as a result of the hot, dry summer made botanical identification challenging, this is not deemed to be a constraint as the areas assessed have been previously surveyed and comprise species-poor grassland and ex-arable grassland.

3.6 Summary of Results

- The hedgerow surrounding the site meets the criteria to be classed as 'important' under the Hedgerows Regulations 2007 and is also a Priority Habitat. The ponds on site may also be classed as Priority Habitat. Although this site is farmed land, it has excellent diversity and offers habitats for a variety of species groups.
- There are eight records of great crested newts within 2km of the site, and one of the three ponds on site scores as having **excellent** suitability for suitability to support

GCN. GCN eggs were also identified in this pond in May 2022. The site also offers excellent terrestrial habitat and hibernation opportunities.

- A number of trees exist on the site which have the potential to support roosting bats. In addition to this, the networks of hedgerows, ponds and open grassland provide commuting and foraging habitat for bats.
- The site is unlikely to support reptiles in significant numbers, although grass snake may use the site.
- The species-rich hedgerows with trees offer nesting opportunities for a number of hedgerow and farmland birds, including turtle dove, which have bred on site this year. Barn owls have been recorded in the surrounding habitat and are likely to hunt over the site.
- Evidence of badger activity was not found during the site visit, but they have been seen traversing the site and it is possible that they could colonise in the future.
- The adjacent hedgerows offer foraging, refuge and hibernation habitats for NERC (2006) Section 41 species including hedgehog and common toad. The farmland offers good habitat for brown hare and harvest mouse.

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, as 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	NA	Parish	Negligible	NA
GCN	Injury/death to resting or hibernating GCN	Local	Minor negative	Possible
Bats Roosting	NA	Local	Negligible	NA
Bats Foraging and commuting	NA	Parish	Negligible	NA
Reptiles	Injury/death to hibernating or resting grass snake	Site	Minor negative	Possible
Badger	NA	Local	Negligible	NA
Nesting birds	NA due to timing of works	Local	Negligible	NA
Priority species	Injury/death to hibernating or resting common toad or hedgehog	Local	Minor negative	Possible

4.2 Potential outcomes of works with appropriate mitigation and enhancements

Table 5. Potential positive impacts of works

Ecological receptor	Impact of works	Level of value	Scale of impact
Habitat	Creating habitat and structural diversity which will improve overall biodiversity of site	Parish	Minor positive
GCN	Creating further breeding ponds and hibernation opportunities	Local	Positive
Bats Roosting	NA	Local	NA
Bats Foraging and commuting	Create further foraging opportunities by increasing local invertebrate biomass and diversity with the addition of ponds	Parish	Minor positive
Reptiles	Creating further foraging and hibernation habitat for grass snake	Site	Minor positive
Badger	Offering drinking opportunities for foraging badger	Local	Minor positive
Nesting birds	Offering further foraging opportunities, particularly for species such as turtle dove	Local	Minor positive
Priority species	Offering improved habitat and breeding sites for common toad, and increasing foraging opportunities for hedgehog	Local	Minor 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, this should be completed and the results made available to the Local Planning Authority prior to any planning decision being made.

5.1 Habitats

The areas proposed for the siting of the two new ponds are currently of relatively low biodiversity botanically. Therefore, these works will result in a minor positive improvement to the overall site. The ponds and accompanying bunds will offer further diversity to the site, both botanically and structurally.

5.2 Great crested newts

As there is a known population of GCN within a pond approximately 360m from Proposed Pond 1, there is a small chance that GCN may seek refuge within a pile of stored materials directly adjacent. This is unlikely, as there is excellent terrestrial habitat surround the GCN pond, with abundant hibernation opportunities. However, as a precautionary measure, we recommend that these materials are moved carefully by hand before the end of October, when GCN will be going into hibernation for the winter. If any GCN or reptiles are encountered, they should be allowed to move away safely before continuing.

These materials should be stored on a raised pallet to discourage any animals from using them as refuge.

The vegetation in the area to be excavated for the creation of Proposed Pond 1, and the surrounding 5m should be cut short and maintained this way to ensure it is unattractive to animals seeking refuge and prevent it being used as a potential hibernation site. This should also be completed prior to the end of October 2022. Creating a buffer of 5m around the area, will also allow safe access for the excavator when the works commence.

Brash cut from the willow should be incorporated into the new bund, thus improving its effectiveness as a future hibernation site for GCN and reptiles.

5.3 Bats

Due to the timing of these works (over-winter), it is unlikely that there will be any impact upon roosting or foraging bats, however, as a precautionary measure, no additional lighting to be installed during construction, which should be undertaken within daylight hours.

5.4 Reptiles

Recommendations made for great crested newts will also safeguard reptiles.

5.5 Breeding Birds

The current plans include the potential removal of one small willow tree outside the bird nesting season (March-August inclusive). The installation of two ponds is likely to have a positive impact for nesting birds, particularly turtle dove, who are known to favour dense hedgerow or scrub areas alongside a gradient of species-rich grassland close to water bodies.

This development is of insufficient size to have any significant impact on barn owl foraging. However, mitigation recommended for sensitive lighting for bats will also benefit barn owls.

5.6 Schedule 9 Plants and Animals

No Schedule 9 plants of animals were recorded on site. However, should invasive plants be discovered in the future, advice should be sought from a suitably qualified individual.

5.7 Species of Principal Importance in England

The mitigation suggested for GCN would also safeguard hedgehog and common toad. Any hedgehogs/toads encountered during works should be moved to other suitable habitat a safe distance from the area being affected, to prevent any harm.

6. REFERENCES

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Stace, C.A. (2010). *New Flora of the British Isles (3rd Edition)*. Cambridge University Press, Cambridge

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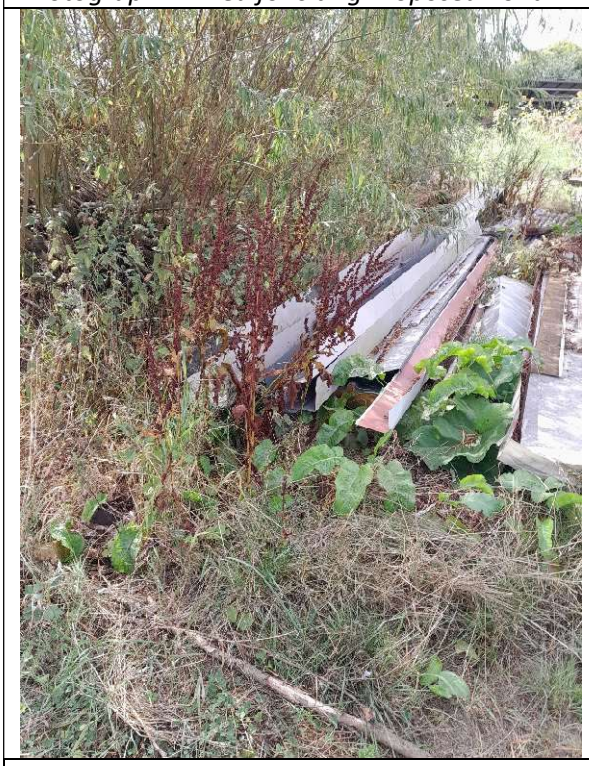
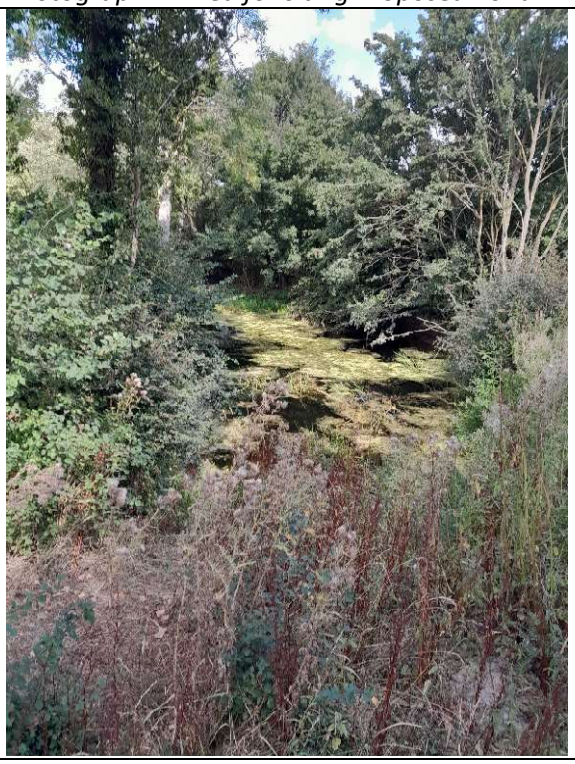
APPENDIX 1. SITE PHOTOGRAPHS

Photograph 1. Area for siting Proposed Pond 1

Photograph 2. Area for siting Proposed Pond 2



Photograph 3. Pile of materials which could be used by hibernating GCN or reptiles



Photograph 4. Existing GCN pond (P1) at western extremity of site

APPENDIX 2. 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 100m^2 and 1000m^2;
- 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.

APPENDIX 3. SSSI CITATION

COUNTY: SUFFOLK SITE NAME: METFIELD MEADOW

DISTRICT: MID SUFFOLK

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Local Planning Authority: MID SUFFOLK DISTRICT COUNCIL

National Grid Reference: TM 303799 Area: 1.4 (ha.) 3.4 (ac.)

Ordnance Survey Sheet 1:50,000: 156 1:10,000:TM 37 NW

Date Notified (Under 1949 Act): N/A Date of Last Revision: –

Date Notified (Under 1981 Act.): 1937 Date of Last Revision: –

Other Information:

A new site.

Description and Reasons for Notification:
Metfield Meadow is an example of a species-rich unimproved meadow, situated on a disused airfield and still surviving within an intensively farmed arable landscape. The turf is dominated by a mixture of Crested Dog's-tail *Cynosurus cristatus*, Cocksfoot *Dactylis glomerata*, Red Fescue *Festuca rubra*, and Carnation Grass *Carex flacca*.

Other species present in the meadow are indicative of unimproved grassland on chalky boulder-clay, including large populations of Green Winged Orchid *Orchis morio*, Cowslips *Primula veris* and Pepper Saxifrage *Silaum silaus*. Amongst many other plants found in smaller quantities are Quaking Grass *Briza media*, Purging flax *Linum catharticum*, Spiny Rest-Harrow *Ononis spinosa*, Rough Hawkbit *Leontodon hispidus* Adder's Tongue *Ophioglossum vulgatum*, Hoary Plantain *Plantago media*, Hoary Ragwort *Senecio crucifolius* and Common Spotted Orchid *Dactylorhiza fuchsii*.

A dense hedge runs along the northern boundary which is rich in woody species and adds further interest to the site.

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 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 (Amendment) (EU Exit) Regulations 2019 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 (Amendment) (EU Exit) Regulations 2019 and 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 Species Regulations (Amendment) (EU Exit) Regulations 2019	• to deliberately capture, kill or injure any bat; • to damage or destroy a breeding site or resting place used by bats (whether bats are in it at the time or not);	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

	and Wildlife and Countryside Act 1981 (as amended)	• 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.	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.
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;	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.

		• Intentionally or recklessly disturb any bird species included in Schedule 1 of the Act while it is 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, hazel dormouse, 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.

Japanese knotweed is listed on Schedule 9 and is likely to be considered as 'Controlled Waste' under the Environmental Protection Act (EPA) 1990 and the Environmental Protection (Duty of Care) Regulations 1991. Any vegetation that is cut must either be burned on site or taken to a landfill site that is licensed to deal with it. The landfill site must be informed of the presence of knotweed in the material. Dead material that has been treated with herbicide may also be hazardous waste by virtue of the chemicals used to kill it.