



PRELIMINARY ECOLOGICAL APPRAISAL

**Land at Bolton Fold Farm
Preston Road
Longridge
Preston
Lancashire**



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Longridge
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Lancashire**

A report for

P. Wilson & Company
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July 2023

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PART 1: INTRODUCTION:

1.1 REASONS FOR SURVEY:

PENNINE *Ecological* have been commissioned by P. Wilson & Company, to undertake a Preliminary Ecological Appraisal of land at Bolton Fold Farm, Longridge, Preston.

The study is required in association with a proposal for a new slurry lagoon.

The study includes the following elements:

- Extended Phase 1 Habitat Survey.
- Evaluation of the potential effects on Great Crested Newt (GCN).
- Evaluation of the potential effects on breeding birds.
- Badger survey.

The study also includes a full evaluation of the ecological significance of the survey and recommendations/precautions where appropriate.

The surveys were undertaken by Ian Ryding a surveyor with over 36 years' experience in a wide range of ecological survey and assessment.

1.2 SITE LOCATION:

The site is located on land north-west of Preston Road, Longridge, Preston PR3 3BN.

Central grid reference: SD 5966 3571.

The location of the proposal site and study area is shown on Map 1 and the Location Plan in the Appendix.

1.3 SURVEY METHODOLOGY:

The methodologies where specific surveys were applied are outlined below.

1.3.1 Extended Phase 1 Habitat Survey:

An Extended Phase 1 Habitat Survey (*Nature Conservancy Council 1990*) of the area was undertaken on the 23rd June 2023.

The site's habitats were fully mapped and higher vascular plant species (where present) were recorded and given abundance values according to the standard DAFOR scale where:

D = Dominant
A = Abundant
F = Frequent
O = Occasional
R = Rare

Where appropriate the above values can be prefixed by the letter L (locally) or V (very), to provide more subtle biogeographical data.

1.3.2 Great Crested Newt Evaluation:

The site was evaluated by means of desk study and the surveyor's specialist knowledge of the species, in particular its terrestrial habits and breeding requirements.

1.3.3 Bats:

The site contains no features that bats might use for roosting, therefore surveys were not applied.

1.3.4 Other Species:

A badger survey was also undertaken on the site, and an evaluation of the site's value for nesting birds undertaken.

1.3.5 Surveyor Experience:

The surveyor and author of this report, Ian Ryding, has over 35 years' experience in ecological survey and evaluation. Key skills include the following.

- Extended Phase 1 Habitat Survey/Preliminary Ecological Appraisal and National Vegetation Classification Survey.
- Highly proficient field botanist, including some difficult plant groups.
- Mammal surveys including surveys for badger, water vole*, otter*, brown hare and preliminary bat roost survey.
- Breeding and wintering bird survey.
- Expert witness delivering proof of evidence in respect of nesting birds at public inquiry in 2018 and 2020.
- Extensive experience in great crested newt (GCN) survey, evaluation, licensing and mitigation. Natural England Class Licence WML-CL08 held.
- Ecological Evaluation and Impact Assessments in association with large scale commercial development and civil engineering.

*Over 250km of river reaches surveyed in England.

1.4 SURVEY CONSTRAINTS:

There were no significant constraints to any of the surveys undertaken.

PART 2 SURVEY RESULTS:

2.1 EXECUTIVE SUMMARY:

- The site has no statutory or non-statutory wildlife or ecological designations.
- The proposal site is composed of a single arable field with innately low species diversity and is of 'site' value only.
- There are no statutory sites within 1.6km of the site, the nearest being Red Scar and Tun Brook Woods SSSI
- There are no direct or measurable indirect impacts on any SSSIs/SPAs arising from the proposal.
- There are no known Biological Heritage Sites within 800m of the site.
- The survey has conclusively shown that there are no buildings or trees on the site therefore, roosting bats will not be impacted by the proposal.
- Minor bat foraging potential is present along the adjacent hedge lines locally.
- GCN have been recorded historically in ponds off-site, however, there is no reasonable likelihood of GCN or its habitat being adversely affected by the proposals.
- No evidence of badger was found on or in the vicinity of the site and no impacts on the species are predicted.

2.2 DESK BASED STUDY:

It was decided in advance that the decision whether or not to obtain data from Lancashire Environment Records Network (LERN) would be based upon the outcome of the survey findings.

In this instance LERN were not consulted, as the proposal site is small and the habitats affected of very low biodiversity value.

However, the Multi Agency Geographical Information Centre www.magic.gov.uk was referred to in respect of statutory sites.

In addition to the above, Pennine Ecological's dataset collated from the many surveys undertaken and observations made by the company since 1996 were also referred to.

Desk based studies were also undertaken to establish the presence of ponds within a 250m radius of the site, as part of a scoping study relating to great crested newt (GCN)

The points of interest listed below are up to date in respect of the statutory sites, non-statutory sites, and ponds.

The results of the desk study revealed the following information.

- There are no Sites of Special Scientific Interest or other statutory sites within 1.66km of the site.

- There are no known Biological Heritage Sites (BHS) within 800m of the site.
- Reference to Magic data showed that there is a single Great Crested Newt Survey Class Licence Return 226m north-east of the site.
- There are also two licence return records >500m north-east, and >1.2km south-east of the site. Significant barriers to GCN movement apply to these ponds.
- There are no Great Crested Newt Pond Survey 2017-2019 records revealing GCN presence within 2km of the site.

Pennine Ecological's dataset provided the following records.

Great crested newt records within 500m:

Pond 97m north of the site. (2006)

Pond 50m south-east of the site.* (2006)

Pond 357m north-east of the site. (2011)

*Pond now infilled.

Beyond 500m there are numerous GCN records dating from 2006 and 2011 relating to eleven ponds, this indicates the potential presence of a substantial metapopulation in that area.

2.3 EXTENDED PHASE 1 HABITAT SURVEY:

2.3.1 General Description:

The site of the proposed development is an arable field that is currently under a maize crop.

The site is accessible from an established metalled track and road linking to Preston Road.

The maize crop is a seasonal feature and will change according to the crop rotation applied.

The habitat present is of very 'low' biodiversity interest.

The proposal site location and other areas considered during this evaluation are shown on Map 1 and the location plan in the appendix.

2.3.2 Extended Phase 1 Habitat Survey Target Notes:

Survey locations, Target Notes and the proposed working area locations are shown on Map 1 in the Appendix. Note: All species nomenclature follows Stace, C. (1996) 'New Flora of the British Isles' - definitive English names.

Target Note 1:

An arable field containing a maize crop that is subject to typical agricultural management.

Target Note 2:

A section of defunct, native, boundary hedge that forms part of the northern boundary of the field containing the proposed new slurry lagoon area.

The hedge is dominated by hawthorn with occasional elder, and there is a seasonally wet ditch on its northern side.

The hedge will be retained but is included here for completeness.

Site photographs showing the area affected by the proposals are provided below.

Site Photographs - Habitats:



Photograph 1: Site of the proposed new slurry lagoon described in Target Note 1. Looking south-west from the access track.



Photograph 2: Defunct hedge and seasonally wet ditch described in Target Note 2 – looking south-west from adjacent field (ley).

2.4 GREAT CRESTED NEWT EVALUATION:

2.4.1 General Description:

A scoping survey for waterbodies with the potential to support great crested newt (GCN) was undertaken referencing Ordnance Survey data and online aerial images followed by a site visit.

The survey and scoping study revealed that there are three extant field ponds (marl pits) and three new pond features present within 250m of the proposal.

Reference to online aerial images showed the presence of temporary amphibian fencing (TAF) in association with a large housing development 145m (approx.) north-east of the proposal site. The area affected contains new and retained ponds and terrestrial habitats.

One of the former marl pits is located in this area and is isolated by TAF. The other two new ponds associated with the off-site development are a large balancing pond separated from this proposal by TAF, and a small new pond contained within a large landscaped wildlife area. This area has no TAF around its boundary.

The two nearest of the field ponds (marl pits) Ponds 1 and 2 are located 97m north and 158m north-west of the site respectively.

There are amphibian records associated with these two ponds which are provided below.

2.4.2 Previous Surveys & Records:

Pennine Ecological's dataset provided the following records.

Great crested newt records with date within 500m:

Pond 1 - 97m north of the site. (2006)

Pond 50m south-east of the site.* (2006)

Pond 357m north-east of the site. (2011)

*Pond now infilled.

In regard to Pond 2, there are no GCN records but there are records of common frog being present in 2006.

Beyond 500m there are numerous GCN records dating from 2006 and 2011 relating to eleven ponds.

The consistent dates and number of amphibian records relating to the ponds in this area indicates that a strategic survey relating to a substantial development has taken place historically.

In addition to the above, reference to Magic data showed that there is a single Great Crested Newt Survey Class Licence Return 226m north-east of the site.

There are also two licence return records >500m north-east, and >1.2km south-east of the site. Significant barriers to GCN movement apply to these ponds.

There are no Great Crested Newt Pond Survey 2017-2019 records revealing GCN presence within 2km of the site.

Figure 1 below shows the proposal site location in relation to Pond 1 and its surrounding habitats.

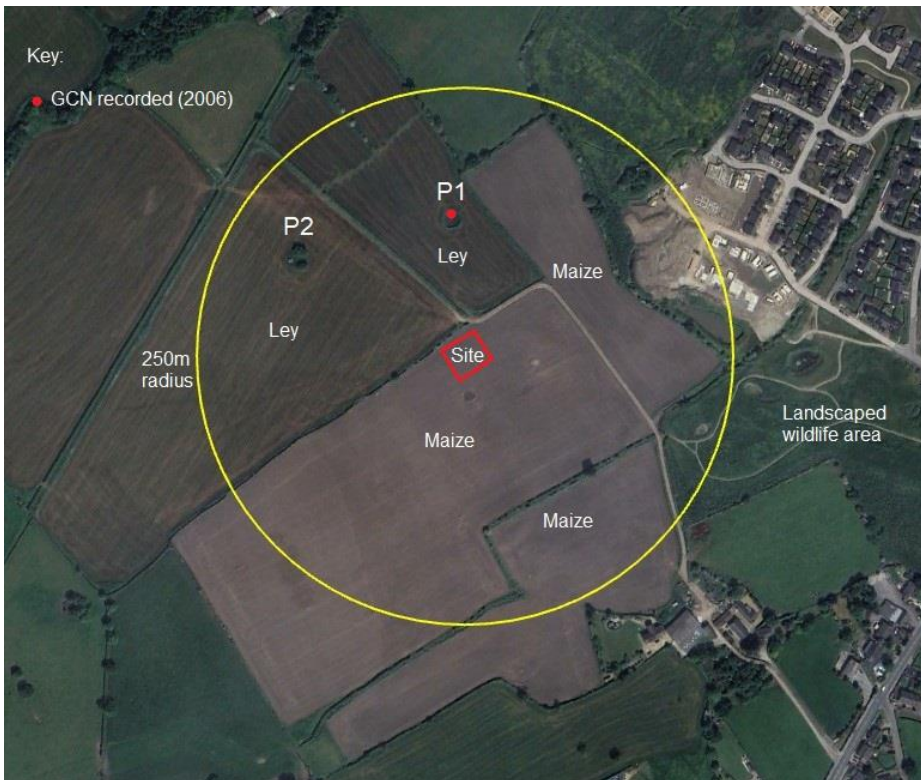


Figure 1: The site in relation to ponds within 250m and terrestrial habitats.

Photographs showing the ponds visited are provided below.

Photographs: Great Crested Newt:



Photograph 3: Pond 1 - GCN present 2006 – obvious good GCN suitability.



Photograph 4: Pond 2 - no GCN records – common frog present 2006 – very poor GCN suitability.



Photograph 5: Nearby housing development with TAF – the balancing pond is immediately to the left.

2.4.3 Evaluation of GCN Data and Potential Effects:

The nearest pond to the site where GCN have been recorded historically is Pond 1 which is 97m north of the site and clearly capable of supporting GCN.

Pond 2 is located 158m north-west of the site and appears very unsuitable for breeding GCN due to drying and ongoing seral succession.

All other ponds are >200m from the site or are separated from it by TAF.

Pond 1 is located within 18m of good foraging areas in the form of tall mature hedgerows, seasonally wet ditches with substantial ditch banks dominated by a mixture of coarse grasses and tall herbs.

These habitats also contain good refuge and overwintering sites for amphibians, and if GCN are still present in Pond 1, then these are the habitats they will gravitate towards and use during their terrestrial phase.

There are no extant ponds within 500m of Pond 1 located in the geographical direction of the proposal site, and no terrestrial habitats of significant quality and size that might attract GCN to areas around the proposal site.

In addition, the proposal site has 'negligible' foraging value and no refuge or overwintering potential.

Were GCN present in Pond 1 it is considered unlikely that the species would head away from good terrestrial habitat in close proximity to the pond, in favour of the very poor arable habitats in the field containing the proposal site.

Studies show that 'GCN display a directional bias towards their preferred habitat during migration between the breeding pond and surrounding terrestrial habitat (Franklin, 1993; Jehle and Arntzen, 2000; Malmgren, 2002)'¹

*'The least favoured direction of terrestrial dispersal has been found to be towards habitats least likely to provide favourable conditions: arable land (Franklin, 1993) and open areas (Jehle and Arntzen, 2000). Jehle and Arntzen, (2000) also found that migration in the direction of a suitable habitat type, characterised by trees and underground shelters, was favoured over migrations to other areas'*¹

Based on the above, it can be confirmed that there will be no effect on terrestrial habitat of value to GCN, and that the possibility of individual GCN being adversely is highly unlikely.

To assist in the primary evaluation of the risk to GCN if present in any of the ponds within 250m arising from the proposal, Natural England's Rapid Risk Assessment Table from the GCN Method Statement Template (WML-A14-2) was employed with the assumption that GCN might be present in any of the five ponds within 250m of the site.

It should be noted that the 'likely effect' inputted into the table is that without any precautions applied. **In addition, the table doesn't differentiate between good or poor-quality habitats and therefore assumes that the habitats affected are suitable for GCN habitation. For example, an ancient woodland will generate the same score as bare concrete.**

The results are presented on Table 1 below.

Table 1: Great Crested Newt - Rapid Risk Assessment Table:

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.5
Land 100-250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.1
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
Maximum:		0.6
Rapid risk assessment result:	AMBER: OFFENCE LIKELY	

¹ English Nature (2004) *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt (Triturus cristatus)*. English Nature Research Report 576

"Amber: offence likely" indicates that the development activities are of such a type, scale and location that an offence is likely. In this case, the best option is to redesign the development (location, layout, methods, duration or timing; see **Non-licensed avoidance measures tool**) so that the effects are minimised. You can do this and then re-run the risk assessment to test whether the result changes, or preferably run your own detailed site-specific assessment. Bear in mind that this generic risk assessment will over- or under-estimate some risks because it cannot take into account site-specific details, as mentioned in caveats above. In particular, the exact location of the development in relation to resting places, dispersal areas and barriers should be critically examined. Once you have amended the scheme you will need to decide if a licence is required; this should be done if on balance you believe an offence is reasonably likely.

Taking NE's advice above in respect of site-specific assessment, the following key points outline the principal issues in respect of impacting GCN **if no Reasonable Avoidance Measures (RAMs) were applied**.

- Permanent loss of approx. 2500m² of arable land subject to annual cultivation, herbicide/pesticide treatments and cropping of no significant value to terrestrial GCN.
- The proposal site isn't on any potential migration route between ponds or between ponds and terrestrial habitat.
- The direction of travel of GCN if they are present in Pond 1 or any other ponds within 250m of the site is away from the proposal site.
- Potential very low - remote risk of GCN seeking refuge in stockpiled disturbed substrates.

Taking the points in respect of risk to GCN or its habitat provided above, the likelihood of adverse effects on GCN is considered to be highly unlikely and that European Protected Species Licence (EPSL) is not required in this instance. This is in line with current advice provided by NE (WML-A14-2 Version April 2020) where very low/negligible impacts are predicted.

"In recent years there has been a trend towards increasingly precautionary applications, resulting from a risk-averse approach to mitigation. Whilst considering potential risks to great crested newts is laudable, many recent mitigation schemes were designed for developments that actually had very little or no effect on the newt population. In part this is because it can be difficult to assess whether newts will be affected by certain activities, especially when they take place at some distance from breeding ponds. Newts tend to be present at increasingly low density the further one looks from ponds, and the task of detecting and capturing them becomes more problematic. Further from ponds, there is a corresponding reduction in the scale of impact on populations. Given that great crested newts can disperse over 1km from breeding ponds, the potential for offences may seem vast, yet the probability of an offence outside the core breeding and resting area is often rather small, and even if an offence takes place, the effect on the population may be negligible.

Natural England is concerned about the trend for increasingly risk-averse mitigation for several reasons. Primarily, there is no legal need, and little benefit to great crested newt conservation, in undertaking mitigation where there are no offences through development. Even where there technically is an offence, such as the destruction of a small, distant area of resting place habitat, or even killing low numbers of newts, it is arguable that impacts beyond the core area often have little or no tangible impact on the viability of populations. Mitigation in such circumstances is of questionable value in conservation terms. There are, however, substantial costs: developers delay projects and spend large sums on mitigation. Sometimes the mitigation project

itself has environmental costs, especially when it entails substantial lengths of newt fencing. In some cases long newt fences are employed with no justification. Natural England wishes to see newt fencing used more appropriately, i.e. only where there is a reasonable risk of capturing, containing and/or excluding newts.

Natural England recognises that the two key factors leading consultants to adopt this risk-averse approach are: (a) uncertainty over the presence of newts and whether there will be an offence in areas distant from ponds; (b) undertaking mitigation under licence "just in case", so that there is no perceived risk of litigation for their client. Natural England wishes to see mitigation planning shift away from such a highly risk-averse starting point. The domestic legislation protecting great crested newts arises largely from the Habitats Directive, which has a central aim to restore scheduled species to a favourable conservation status. A more proportionate approach to mitigation, addressing tangible impacts on populations whilst giving lower priority to negligible effects, is consistent with the aims of the Directive. The recent loss of the "incidental result" defence from the legislation may create a tension with this approach, but it is hoped that the guidance here will assist".

Conclusions:

Based on the information provided above, GCN has been recorded historically in Pond 1 and for the purposes of this evaluation is assumed to be still present. Pond 2 is unsuitable for breeding GCN and all other ponds are >200m from the site or are separated from it by TAF, where ongoing mitigation under licence is taking place approximately 145m north-east of the proposal site.

The proposal site is arable land and has no permanent refuge, no overwintering sites and foraging is considered to be of 'negligible' value.

Good foraging areas are present within 18m of Pond 1 in the form of tall mature hedgerows, and seasonally wet ditches with substantial ditch banks dominated by a mixture of coarse grasses and tall herbs.

These habitats also contain good refuge and overwintering sites for amphibians, and if GCN are still present in Pond 1, then these are the habitats they will gravitate towards and use during their terrestrial phase.

The proposal site isn't on any potential migration route between ponds or between ponds and terrestrial habitat.

Given the lack of terrestrial habitat of value being affected by the proposal, and the availability of good terrestrial habitat off-site in close proximity to any potential GCN pond, the likelihood of GCN being affected by the proposal is considered highly unlikely.

2.5 EVALUATION OF OTHER FEATURES:

2.5.1 Breeding Birds:

The field currently has no potential for breeding birds due to the presence of a standing maize crop.

Ground-nesting bird potential might increase when the field is under either spring or winter cereals, however the relatively small size of the field and presence of boundary hedgerows reduces its potential considerably.

No trees or shrubs area affected by the proposals.

2.5.2 Badger:

The boundaries of the field containing the proposal were walked for a distance of 100m (approx.) looking for any sign of badger occupation including footprints, pathways, runs, latrines or setts.

The adjacent leys were also searched for the presence of badger signs including foraging.

No evidence of badger activity/occupation was found during the survey and the site is largely unsuitable for badger habitation. Based on the lack of badger signs, the species is considered to be absent on the site and in the immediate vicinity.

2.5.3 Bats:

It can be confirmed that the proposal site contains no features (i.e. buildings and/or trees) that bats might use for roosting. Therefore it can be conclusively stated that there are no bat roosts on the site.

PART 3 SUMMARY EVALUATION & RECOMMENDATIONS:

3.1 SUMMARY EVALUATION OF FINDINGS:

The following section discusses the significance of the survey findings. It should be noted that this part of the evaluation relates to habitats and species and includes reference to the following statutory/non-statutory instruments.

- The Wildlife and Countryside Act 1981 (and later amendments), with particular reference to protected species listed in Schedules 1, 5 and 8 of the above act.
- Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.
- Section 41 Habitats and Species of Principal Importance in England. Natural Environment and Rural Communities (NERC) Act 2006.
- Reference to any relevant Red Data List/Book species and Nationally Scarce species not covered by the above or any other lists / schedules of species rarity or importance.
- Use of the *Biological Heritage Site Guidelines for Site Selection* (LCC, LWT 1998) has been made. This document is an invaluable tool for assessing the significance of species / habitats in Lancashire, since it sets out the minimum ecological requirements for species/habitats to be selected as a Biological Heritage Site. Biological Heritage Sites (BHS) are by definition considered to be of Lancashire County significance for their ecological interest. By implication, sites that fail to meet these guidelines would not be of County ecological significance, but may be of significance at a more local scale e.g. Borough / Parish etc. The use of this method of site evaluation is in effect application of the Ratcliffe (1977) Criteria at a more specific local County level.

The evaluation is based on the commissioned surveys and desk study only.

The evaluation of the survey findings are summarised further below.

3.1.1 Statutory Sites:

The site has no statutory designation, and there are no statutory sites within 1.7km.

3.1.2 Biological Heritage Sites:

The proposal site has no value in respect of BHS designations.

There are no known BHSs within 800m of the site.

3.1.3 Section 41 NERC Act 2006 Habitats & Species:

These are Species and Habitats of Principal Importance for the Conservation of Biodiversity in England under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006.

There are no known S41 species or habitats affected by the proposals.

3.1.4 Nationally Scarce/County Red Data List Species:

There are no Nationally Scarce/County Red Data list plant species on the site.

In addition to the above, the field survey and evaluation of the site revealed the following information.

3.1.5 Vegetation/habitats:

The proposal will affect a small area of arable land only.

The habitats affected are very poor biodiversity-wise and considered to be of 'site' ecological value.

The boundary hedgerows will be retained.

3.1.6 Great Crested Newt:

The scoping study revealed that the nearest pond to the site where GCN have been recorded historically is Pond 1 which is 97m north of the site and clearly capable of supporting GCN.

Pond 2 is located 158m north-west of the site and appears very unsuitable for breeding GCN due to drying and ongoing seral succession.

All other ponds are >200m from the site or are separated from it by TAF.

Pond 1 is located within 18m of good foraging areas in the form of tall mature hedgerows, seasonally wet ditches with substantial ditch banks dominated by a mixture of coarse grasses and tall herbs.

These habitats also contain good refuge and overwintering sites for amphibians, and if GCN are still present in Pond 1, then these are the habitats they will gravitate towards and use during their terrestrial phase.

There are no extant ponds within 500m of Pond 1 located in the geographical direction of the proposal site, and no terrestrial habitats of significant quality and size that might attract GCN to areas around the proposal site.

In addition, the proposal site has 'negligible' foraging value and no refuge or overwintering potential.

Were GCN present in Pond 1, it is considered unlikely that the species would head away from good terrestrial habitat in close proximity to the pond, in favour of the very poor and seasonally disturbed arable habitats in the field containing the proposal site.

Given the lack of terrestrial habitat of value being affected by the proposal, and the availability of good terrestrial habitat off-site in close proximity to any potential GCN pond, the likelihood of GCN being affected by the proposal is considered to be highly unlikely.

3.1.7 Breeding Birds:

The survey revealed the area affected to be currently unsuitable for nesting birds due to it being planted with a maize crop.

Ground-nesting bird potential might be present in years when the field is under either spring or winter cereals, however the relatively small size of the field and presence of boundary hedgerows reduces its potential considerably.

The ability of the field to support nesting birds is predominantly influenced by farming operations and cropping regimes. The presence of the lagoon on the edge of the field isn't considered to reduce the field's value for ground-nesting birds, if present.

The boundary hedge will be retained and will be unaffected by the proposals.

3.1.8 Badger:

The site is unsuitable for badger habitation and no evidence of badger activity was found during the survey, therefore the species is considered to be absent on site and in the immediate vicinity.

3.1.9 Bats:

It can be confirmed that the proposal site contains no features that bats might use for roosting. Therefore it can be conclusively stated that there are no bat roosts on the site and that roosting bats will not be adversely affected.

3.2 RECOMMENDATIONS:

The following section outlines any mitigation or precautions required in respect of the survey findings.

3.2.1 Vegetation/Habitats:

No further surveys recommended.

The proposed slurry lagoon will affect a small area of arable land only which has very low biodiversity value.

An earth bund is proposed around the new slurry lagoon, and to ensure net gain it is recommended that the bund is sown with a grass seed mix, a percentage of wildflower seed can be added if desired.

As a general guide, Boston Seeds BS Slow Grow and Companion Grass Seed Mix might be an appropriate mix to use in this situation.

3.2.2 Great Crested Newt:

No impacts on GCN or its habitat are predicted, and no further surveys are advised.

However, all works must be confined to the arable field containing the proposed lagoon only, the adjacent ley grasslands must not be used for stockpiling or storage of materials during construction.

In addition, if any species suspected to be a GCN is found during the works, all work must stop, and a GCN class-licenced ecologist called for advice on how to proceed with the development in line with the Regulations.

Any other amphibians found must be removed from the site and placed in dense hedgerow cover off-site.

3.2.3 Breeding Birds:

There is no nesting bird habitat on the site and no impacts on nesting birds will be generated by the proposals.

Given the absence of any nesting habitat, no further surveys or precautions are required in respect of breeding birds.

3.2.4 Badger:

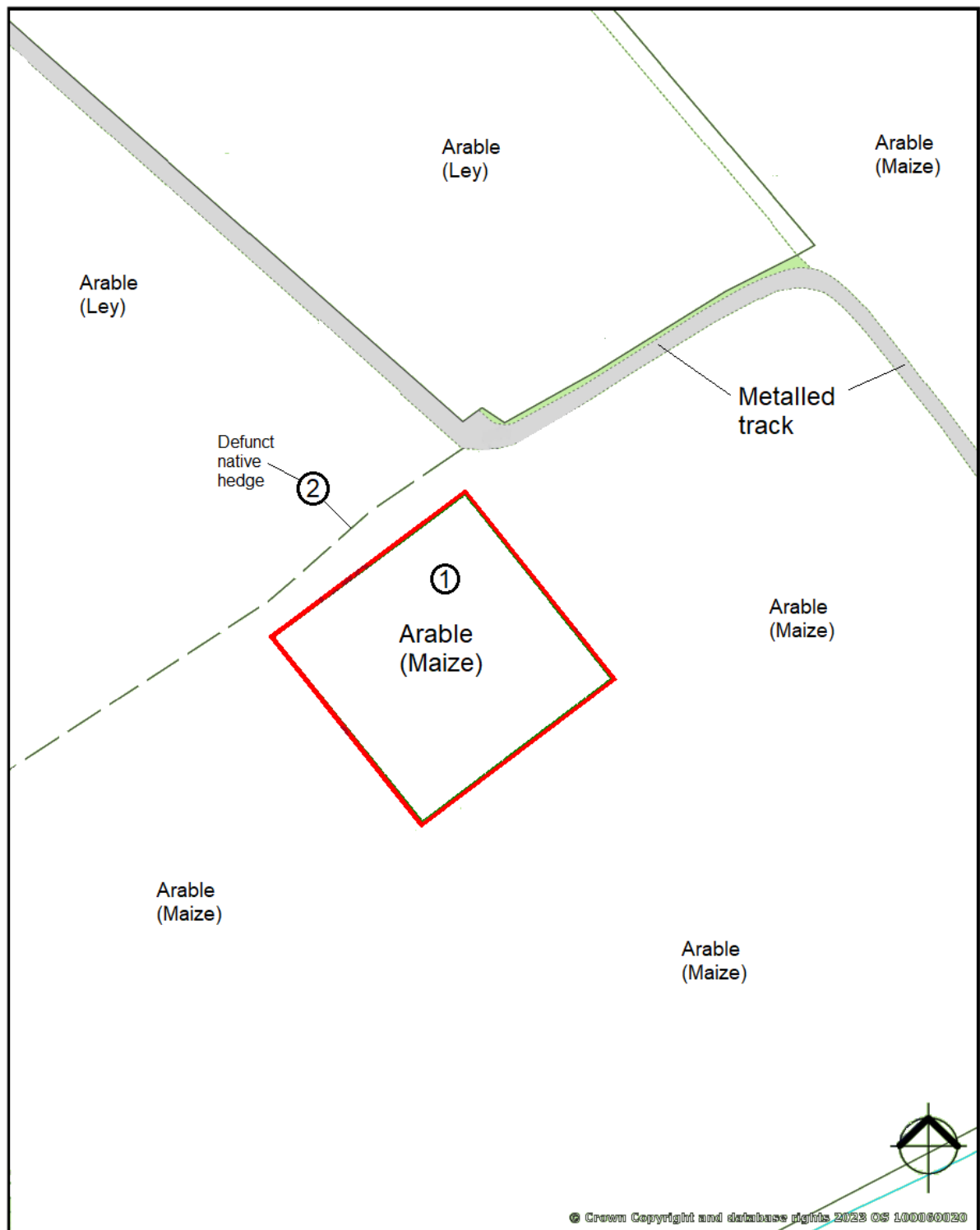
Badgers are absent on site and locally and no further surveys or precautions recommended.

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APPENDIX:

*Map 1: Extended Phase 1 Habitat Survey Map
Site Location Plan (PWC)*



Site: Land at Bolton Fold farm, Preston Road, Longridge, Preston

Map 1: Extended Phase 1 Habitat Map

Plotted Scale - 1:5,000