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Preliminary Ecological Appraisal (PEA) – View Farm, Minety



Site: View Farm, Minety

Client: Kathy Moffatt

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Life Span of Survey Data and Report	
Report	This report remains valid for 12 months from the date of issue. The report, conclusions and recommendations are valid for current development plans only. Should these change, the report should be reviewed and, if necessary, further survey work and desk study review undertaken.
Survey Data	Survey data are valid for 12 months from the date the survey was undertaken.

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The information which we have prepared and provided is true and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.

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1. Executive Summary

Below is provided a brief summary of findings and recommendations. Please read the report in its entirety for full details.

- Dipper Ecology was approached by Kathy Moffatt to undertake a Preliminary Ecological Appraisal (PEA) at View Farm, Minety.
- The PEA will support a planning application for the Site comprising the construction of a surfaced track area for horses.
- The main ecological constraints associated with the Scheme are reptiles, breeding birds and Great Crested Newt (GCN).
- The works on Site would present a low potential for impacts to reptiles if unmitigated for. This is due to reptile records being returned within the data search, suitable habitats on Site including improved grassland and hedgerows immediately adjoining Site and the presence of plentiful natural and artificial refugia on Site.
- The works on Site would present a low potential for impacts to GCN if unmitigated for. This is due to GCN records being returned within the data search, the presence of suitable habitats on Site including improved grassland and hedgerows immediately adjoining Site and the presence of plentiful artificial and natural refugia.
- The works on Site would present a low potential for impacts to breeding birds if unmitigated for. This is due to the abundance of suitable habitats on Site including improved grassland and wheat crop, and hedgerows immediately adjoining Site.
- Further surveys for birds, great crested newt and reptiles are not considered necessary, however methods to avoid potential disturbance to the above species are required.
- Due to the not-inconsiderable likelihood of encountering either great crested newt or reptiles during the Scheme, an Ecological Clerk of Works (ECoW) should be appointed to supervise the works, particularly where ground is being broken or any features (such as natural or artificial refugia) require moving or disturbance.

2. Introduction

2.1 Background

Dipper Ecology was approached by Kathy Moffatt to undertake an ecology assessment comprising a Preliminary Ecological Appraisal (PEA), at View Farm, Minety (hereafter known as *the Site*). The PEA will support a planning application for the Site comprising the construction of a surfaced track area for horses.

All works as described above will be hereafter referred to as *the Scheme*. The report focusses on the potential ecological constraints associated with the Scheme and within the wider landscape, known as the ecological zone of influence.

The purpose of the Site visit on 19th July 2023 comprised an extended phase 1 habitat survey to assess the conservation value of the survey area, the potential for presence of notable and/or protected species, to identify any features, habitats or species which would constitute potential constraints to the proposed Scheme and to make recommendations for mitigation and/or further survey work, as appropriate.

2.2 Site context

The Site is located at View Farm, SN16 9RJ, south of Minety in north Wiltshire Central Ordnance Survey Grid Reference (OSGR) SU 03243 87848. The Site is approximately 0.7 hectares (ha) and comprises mixed habitat including grassland and cereal crop, namely wheat. The Site is bounded by largely arable land use with sparsely scattered residential and agricultural buildings. See Figure 1 for the geographical context of the Site, the Site boundary, and the wider landscape.

2.3 Proposed Development

This report and its findings will inform the proposed Scheme which comprises the construction of a surfaced track area for horses. For full context of the Scheme, see Appendix 2, Figure 3.

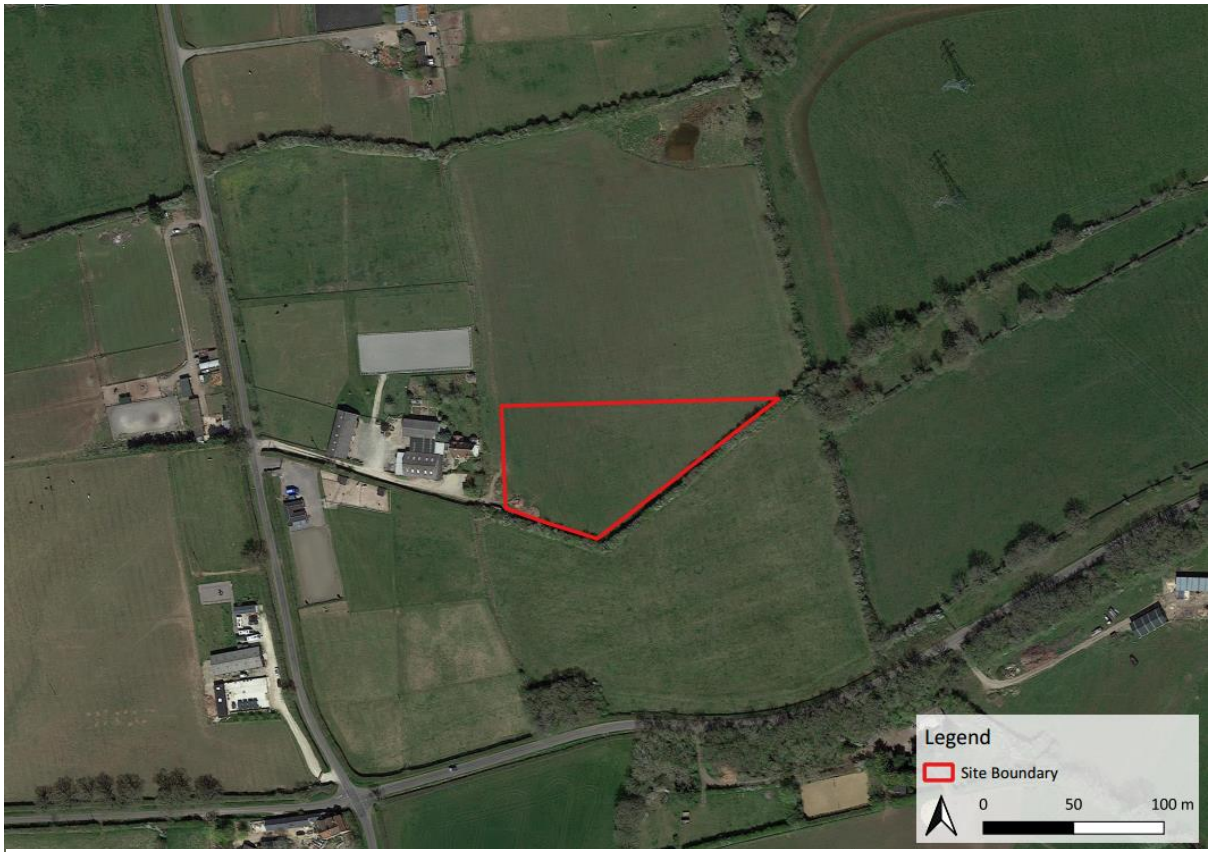


Figure 1 – Site location. View Farm, Minety SN16 9RJ (OSGR SU 03243 87848).

2.4 Objectives

The purpose of the extended phase 1 survey and subsequent PEA is to:

- Check for evidence of protected species and assess the potential for protected and notable species to be present on Site.
- Make recommendations for further survey work as appropriate.
- Propose mitigation measures to avoid, mitigate or compensate for ecological impacts, as appropriate.

2.5 Limitations

No limiting factors were identified which may have impeded the completion of the extended phase 1 habitat survey and subsequent PEA to best practice standards.

3. Legislation and Planning Policy

This section provides a summary of legislation for protected species and habitats that may be present on Site or within its zone of influence.

The legislation and planning policy detailed in this section is intended to provide a summary only. The relevant pieces of legislation and planning policy should be referred to in full for information. Below is a summary of legislation and national planning policy that protects species and habitats in England as a whole and Wiltshire specifically:

Species and Habitats

- Wildlife and Countryside Act, 1981 (as amended)
- Countryside Rights of Way Act, 2000
- Natural Environment and Rural Communities Act, 2006
- National Planning Policy Framework (NPPF), 2012
- Conservation of Habitats and Species Regulations 2017
- Natural Environment and Rural Communities (NERC) Act 2006
- Wiltshire Council Biodiversity and Development, 2023

3.1 Protected Species and Species of Conservation Concern

The NPPF sets out government policy on biodiversity in planning decisions. Under the NPPF, the presence of a protected species is a material consideration when a planning authority is considering a development proposal.

3.2 Breeding Birds

Under the Wildlife and Countryside Act 1981 (as amended), it is illegal to take, damage or destroy the nests of wild birds whilst being built or in use.

3.3 Common Species of Reptile

All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended), making it illegal to intentionally or recklessly kill or injure a reptile.

3.4 Ecological Enhancement

Both national and local policy support ecological enhancement in the design of developments. The NPPF and accompanying Office of the Deputy Prime Minister (ODPM) Circular 06/05 state that Local Planning Authorities should aim to conserve and enhance biodiversity.

3.5 Ecology and Development in Wiltshire

The Wiltshire Council Biodiversity and Development (2023) statement sets out the controls and guidance to be implemented when developments are

undertaken, including the importance of the requirement for ecology surveys and the importance of green spaces, as below:

Ecology surveys and Planning applications

At the design stage of any development, the existing ecology of the site and surrounding area must be taken into consideration. Ecological assessment of the proposed location will identify existing habitats and species present on the site and any potentially damaging effects on them, as a result of the proposed development.

Consideration should be given to how the proposed development fits into the existing landscape, including:

- *Adjacent parks*
- *Open spaces*
- *Designated sites*
- *Gardens*

All of these make a valuable contribution to green infrastructure and wildlife corridors in urban areas and the likely effects of development should not be overlooked.

It is important to note that an absence of evidence of a species does not necessarily mean that the species is not there, or that its habitat is not protected. Once an assessment of existing ecology has been carried out, the potential to enhance wildlife value within the new development should be evaluated.

4. Methods

This PEA has been produced with reference to current guidelines for Extended Phase 1 Habitat Surveys and guidelines for Ecological Report Writing (Chartered Institute of Ecology and Environmental Management (CIEEM), 2015). The assessment comprised a basic desktop search and Site visit, followed by a review of the data to provide summaries of any relevant protected species and habitats.

4.1 Data Search

Numerous methods of data search were undertaken, where the following materials were consulted:

- Multi-Agency Geographical Information for the Countryside (MAGIC) (www.magic.gov.uk)
- National Biodiversity Network (NBN) Atlas (www.nbnatlas.org/)

4.2 Extended Phase 1 Habitat Survey

The survey follows the national guidelines (JNCC, 2010), and the following equipment was made available throughout:

- Tablet (for habitat mapping)
- Binoculars.
- Thermometer/hygrometer.
- Camera
- Sample bags (e.g. for collecting animal droppings and/or feeding remains).

Target notes (TN) were used to identify potential for protected/notable species or habitats, and to give more detailed Site descriptions. If a deviation from the standard guidelines has been made the reason and justification will be explained below:

No deviation from the standard guidelines and methodology has been made for this survey.

4.3 Protected Species Assessment

As part of the assessment the Site was assessed for its potential to support protected/notable species. The assessment was made based on the habitats present within the Site and their suitability to accommodate protected species (information on the legislation of protected species can be found in Section 3). Protected species assessed for, but not limited to, were:

- great crested newt (*Triturus cristatus*),

- common species of reptile[1],
- breeding birds,
- birds afforded protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended),
- bats,
- (European) badger (*Meles meles*)
- (Eurasian) otter (*Lutra lutra*),
- water vole (*Arvicola amphibius*),
- hazel dormouse (*Muscardinus avellanarius*),
- white-clawed crayfish (*Austropotamobius pallipes*)
- invertebrates of conservation concern and,
- plants of conservation concern.

In addition to the above, a search was undertaken for evidence of non-native/invasive species.

[1] In this case, common species of reptile refers to the more commonly observed and wider distributed reptile species within the UK, namely grass snake (*Natrix helvetica)*, adder (*Vipera berus)*, slow-worm (*Anguis fragilis)* and common/viviparous lizard (*Zootoca vivipara)*

5. Baseline Ecological Conditions

5.1 Desk Study

A basic data search was carried out as per section 4.1.

5.2 Statutory designated sites

The Site is not located within a statutory designated site. Two Sites of Special Scientific Interest (SSSI) occur within the 2 km search area, Ravensroost Wood SSSI and Distillery Farm Meadows SSSI. The nearest of these to Site is Ravensroost Wood SSSI approximately 700 m west of Site.

5.3 Ancient Woodland

No areas of ancient woodland occur within the Site. Eleven parcels of ancient woodland occur within the search area, nine classified as, 'Ancient & Semi-Natural Woodland' and two classified as, 'Ancient Replanted Woodland'. The nearest Ancient & Semi-Natural Woodland is associated with Ravensroost Wood SSSI, approximately 860 m north-west of Site. The nearest Ancient Replanted Woodland is associated with Webbs Wood approximately 1.85 km south of Site.

5.4 Priority Habitats

Deciduous Woodland

No areas of priority deciduous woodland occur within the Site. Twenty five parcels of priority deciduous woodland occur within the 2 km search area, the nearest of which being approximately 600 m north-west of Site, associated with Ravensroost Wood SSSI.

Traditional Orchards

No priority traditional orchard habitat occurs within the Site. Three parcels of traditional orchard habitat occur within the 2 km search area, the nearest of which being a parcel associated with Ravensroost Wood SSSI approximately 450 m north-west of Site.

Lowland Meadows

No priority lowland meadows habitat occurs within the Site. Nine parcels of lowland meadows habitat occur within the 2 km search area, the nearest of which being a parcel north of Queen Street approximately 560 m west of Site.

5.5 Wildlife European Protected Species (EPS) Licenses

The data search conducted through MAGIC identified a single application for an EPS mitigation licence within the 2 km search area. The licence was in reference to the destruction of a breeding site for brown long-eared bat (*Plecotus auritus*)

and common pipistrelle (*Pipistrellus pipistrellus*) approximately 1 km south of Site at Park Farm from 2016 - 2017. No other information on the status of the breeding site (e.g. numbers of bats or roost type) was made available.

5.6 Protected Species and Species of Conservation Concern

The below provides a summary of records of protected species and species of conservation concern within 2 km of the Site from the NBN Atlas. Only recent records, those recorded ≤10 years prior to the assessment, have been included.

- Great crested newt and other amphibians[2]: Nineteen records of great crested newt were identified within the data search, the nearest of which being three unspecified great crested newts (i.e. no confirmation of sex or age) approximately 600 m west of Site between April and May 2017 in Ravensroost Wood nature reserve. The MAGIC search identified great crested newt surveys being undertaken at seven separate locations within the search area between 2014 and 2018, all of which confirming the presence of great crested newt at their survey location. The nearest of these to Site appears to be the same record at Ravensroost Wood nature reserve in April and May 2017 as described above. Eight aquatic features were identified within 500 m of the Site, comprising four linear ditch-type features and four pond-type features. All eight of these features may be considered commutable via suitable habitat for great crested newt between the aquatic features and the Site. The closest of these ponds to Site is a pond installed as part of the District Level Licensing (DLL) Scheme for great crested newts, approximately 130 m north of Site, within the same arable field as the Scheme. No EPS mitigation licence applications concerning great crested newt were identified through the search conducted via MAGIC. Other records of amphibians returned within the data search comprise nine records of palmate newt between 2015 and 2021, three records of smooth newt from June 2017 and three records of common frog between 2014 and 2015. No other amphibians were recorded within the data search.
- Birds: Five species protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) were identified within the data search, fieldfare (*Turdus pilaris*), redwing (*Turdus illacus*), firecrest (*Regulus ignicapilla*), goldeneye (*Bucephala clangula*) and brambling (*Fringilla montifringilla*) between 2013 and 2019. The nearest of these to Site is firecrest, redwing and fieldfare being recorded approximately 1.2 km west of Site between 2013 and 2019 (measured from a central OSGR of a 1 km grid square, the only location provided for the record). Several other notable bird species were identified within the data search, including skylark (*Alauda*

[2] In this instance, other amphibians include common frog (*Rana temporaria*), common toad (*Bufo bufo), smooth newt (Lissotriton vulgaris) and palmate newt (Lissotrition helveticus)*

arvensis), and house sparrow (*Passer domesticus*) both of which are listed under the UK Birds of Conservation Concern 5 red list[3].

- Reptiles: Four records of viviparous lizard were returned from the data search from 2016 and 2018. These occur in two separate 1 km grid squares, the nearest of which being approximately 1.5 km south-west of Site (measured from a central OSGR of a 1 km grid square, the only location provided for the record) in 2016. No other records of reptile were returned from the data search.
- Bats: The MAGIC EPS mitigation licence search returned a single case of a granted application within the search area (see 5.5 above). No other recent records of bats were identified within the data search.
- Otter: No recent records of otter were identified within the data search. Furthermore the MAGIC data search identified no applications for any EPS mitigation licences for otter.
- Badger: No recent records of badger were identified within the data search.
- Water vole: No recent records of water vole were identified within the data search.
- Hazel dormouse: No recent records of hazel dormouse were identified within the data search. Furthermore, the MAGIC data search identified no applications for any EPS mitigation licences for hazel dormouse.
- White-clawed crayfish: No recent records of white-clawed crayfish were returned within the data search.
- Invertebrates: Invertebrates within the UK may be protected under the NERC Act, Wildlife and Countryside Act 1981 (as amended) or as EPS. Five species protected under the NERC Act were identified within the data search, small heath (*Coenonympha pamphilus*), dingy skipper (*Erynnis tages*), white admiral (*Limenitis camilla*) grizzled skipper (*Pyrgus malvae*), and pearl-bordered fritillary (*Boloria euphrosyne*). The nearest of these to Site is white admiral, recorded approximately 1.2 km west of Site (measured from a central OSGR of a 1 km grid square, the only location provided for the record). One species was identified within the data search which is fully protected under the Wildlife and Countryside Act 1981 (as amended), marsh fritillary (*Euphydryas aurinia*), which occurred approximately 2 km south-west of Site (measured from a central OSGR of a 1 km grid square, the only location provided for the record). No EPS of invertebrates were identified within the data search.
- Invasive/non-native plant species: No recent records of invasive/non-native plant species were returned within the data search.
- Plants of conservation concern: No recent records of plants of conservation concern were identified within the data search.

[3]https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/uk-conservation-status-explained/

5.7 Extended Phase 1 Habitat Survey – Habitats

Habitats have been classified as per the guidance in JNCC Handbook for Phase 1 habitat survey - A technique for environmental audit (JNCC, 2010). For full detail of the habitats identified on Site, see Appendix 1. The following habitats were recorded on Site:

Cultivated/disturbed land - Arable (J1.1)

Cultivated/disturbed land – Arable, namely wheat (*Triticum aestivum*) crop for silage, comprises over 90% of the habitat type on Site. Wheat crop continues throughout the field the Site occurs within and comprises much of the surrounding landscape beyond. Though wheat is dominant throughout the habitat extent, other species present within the sward include brassica sp.[4] (*Brassicaceae*), broad-leaved dock (*Rumex obtusifolius*), common bird's-foot-trefoil (*Lotus corniculatus*), common knapweed (*Centaurea nigra*), crested dog's-tail (*Cynosurus cristatus*), false oat-grass (*Arrhenatherum elatius*) and meadow vetchling (*Lathyrus pratensis*). For further information refer to Photos 3, 4 and 7 and TN4.

Improved grassland (B4)

Improved grassland comprises the south-western and western-most extent of habitat within the Site. Species present is typical of those usually found within the habitat type, including black medic (*Medicago lupulina*), common poppy (*Papaver rhoeas*), hedge woundwort (*Stachys sylvatica*) and red fescue (*Festuca rubra*) with margins comprising species such as bramble (*Rubus fruticosus*), nettle (*Urtica dioica*), rosebay willowherb (*Chamaenerion angustifolium*), great willowherb (*Epilobium hirsutum*) and common hogweed (*Epilobium hirsutum*). For further information refer to Photos 1 and 2 and TN3.

Hedge with trees - native species-rich (J2.3.1)

This habitat type occurs immediately southwards of the southern Site boundary (Photo 6), as well as approximately 15 m west of the western Site boundary. The western hedge also incorporates a ditch beneath it, dry and choked at the time of survey (Photo 8). Species mix within the hedges is varied, including semi mature trees of blackthorn (*Prunus spinosa*), common beech (*Fagus sylvatica*), common privet (*Ligustrum ovalifolium*), hawthorn *(Crataegus monogyna*), plum sp. (*Prunus*) and wild cherry (*Prunus avium*). Ground flora and climbing species within the hedges includes dog rose (*Rosa canina*), ivy sp. (*Hedera*), hedge bindweed (*Calystegia sepium*), curled dock (*Rumex crispus*) and garlic mustard (*Alliaria petiolate*).

[4] Sp.' is a widely applied abbreviation within scientific documents for the term 'species'.

5.8 Extended Phase 1 Habitat Survey – Species

The following flora was recorded during the survey:

- Black medic
- Blackthorn
- Brassica sp.
- Bramble
- Broad-leaved dock
- Cleavers (*Galium aparine*)
- Common beech
- Common bird's-foot-trefoil
- Common dandelion (*Taraxacum officinale*)
- Common fleabane (*Pulicaria dysenterica*)
- Common hogweed
- Common knapweed
- Common nettle
- Common poppy
- Common privet
- Crested dog's-tail
- Curled dock
- Dog rose
- False oat-grass
- Garlic mustard
- Greater stitchwort (*Stellaria holostea*)
- Great willowherb
- Hawthorn
- Hedge bindweed
- Hedge woundwort
- Ivy sp.
- Lobelia sp. (*Lobelia*)
- Meadow buttercup (*Ranunculus acris*)
- Meadow vetchling
- Pedunculate oak (*Quercus robur*)
- Perennial ryegrass (*Lolium perenne*)
- Pineappleweed (*Matricaria discoidea*)
- Plum sp.
- Purple toadflax (*Linaria purpurea*)
- Red fescue
- Red clover (*Trifolium pratense*)
- Rosebay willowherb
- Spear thistle (*Cirsium vulgare*)
- Spiny sow thistle (*Sonchus asper*)
- Wheat
- White clover (*Trifolium repens*)
- Wild cherry
- Yellow-rattle (*Rhinanthus minor*)

- Yorkshire fog (*Holcus lanatus*)

The following fauna was recorded during the survey:

- Blackbird (*Turdus merula*)
- Eurasian wren (*Troglodytes troglodytes*)
- European robin (*Erithacus rubecula*)

6. Ecological Constraints

Table 1 sets out known and potential ecological constraints to the Scheme, as a result of the data search and the extended phase 1 habitat survey, including designated sites, priority habitats, ancient woodland, and protected species/species of conservation concern. Where a potential ecological constraint has been identified, further survey work and/or appropriate mitigation is likely to be required to address the issue.

Table 1. Ecological receptors identified on Site, with justification for their potential to pose constraints to the works.

Ecological Receptors	Potential for impact	Assessment and Justification
Common species of reptiles	Low	Four records of reptile were identified during the data search, all of which were viviparous lizard. The Site exhibits suitability for common species of reptiles including viviparous lizard with habitats such as improved grassland (Photos 1 and 2 & TN3), hedgerows (Photos 6 and 8) adjoining Site, artificial (TN2) and natural refugia (Photos 2 and 5 & TN1) such as the wood pile with adjoining manure heap (Photo 2, TN1), and carpets and rubble (TN2). All such habitats and features provide suitability for all life stages and activities of reptiles, such as basking, foraging, shelter, and hibernation.
Great crested newt and other species of amphibian	Low	Nineteen records of great crested newt were identified during the data search. Although no water bodies are present on Site itself, the Site does contain suitable terrestrial habitat in the form of improved grassland (Photos 1 and 2 & TN3), arable land use and hedgerows immediately adjoining Site (Photos 6 and 8). Eight aquatic features were identified within 500 m of the Site, comprising four linear ditch-type features and four pond-type features. Most notably of these is the pond installed for the District Level Licensing Scheme for great crested newt approximately 130 m north of Site, within the same arable field as the Scheme. In addition to this, features such as the improved grassland, artificial (TN2) and natural refugia (Photos 2 and 5 & TN1) and hedgerows (Photos 6 and 8) offer shelter and hibernation opportunities for great crested newt and other amphibian species identified within the data search (common frog, palmate newt and smooth newt).
Breeding birds	Low	Whilst no birds were observed exhibiting breeding behaviour on Site, such as adult birds being observed carrying nest material or food, singing or young birds

Ecological Receptors	Potential for impact	Assessment and Justification
		being observed, all habitats present on and adjoining Site, hedgerows (Photos 6 and 8), wheat crop (Photos 3, 4 and 7 & TN4) and improved grassland (Photos 1 and 2 & TN3) is of suitability to support nesting birds.
Birds of conservation concern	Low	Five Schedule 1 bird species were identified within 2 km of Site during the data search, fieldfare, redwing, firecrest goldeneye and brambling. Fieldfare, redwing, brambling, and goldeneye are afforded Schedule 1 status for their scarcity as a breeding species in the UK. Though such species are common winter visitors, their breeding populations are largely confined to upland areas of northern England and Scotland. In support of this, all records of fieldfare, redwing, goldeneye, and brambling within the data search occur within winter months (October – March), outside of their typical breeding period. Firecrest typically require tall areas of dense woodland, whether deciduous or coniferous as nesting habitat. As habitat requirements for all the previously mentioned bird species protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are absent from Site and will not be impacted as a result of the works, none of the species will be discussed further within this assessment. Whilst no confirmatory evidence was identified on site, and no relevant records retrieved from the data search, there is suitable foraging habitat for barn owl, a bird listed on Schedule 1, on Site. Furthermore, the Client mentioned barn owl being observed on Site this year foraging within the suitable habitat (arable wheat field (Photos 3, 4 and 7 & TN4). Other species of conservation concern identified within the data search includes house sparrow and skylark. Suitable habitat for both species is present within and adjoining Site including hedgerows (Photos 6 and 8) for the former, and open expansive wheat crop for the latter.
Protected invertebrates/invertebrates of conservation concern	Negligible	No protected species of invertebrates were identified on Site. However, six species were identified within the data search, small heath, dingy skipper, white admiral, grizzled skipper, pearl-bordered fritillary, and marsh fritillary. The typical habitat requirements of each of these species is

Ecological Receptors	Potential for impact	Assessment and Justification
		absent from Site[5]. The likelihood of the above, or any other protected or notable invertebrate species occurring on Site is reduced by either no suitable habitat for such invertebrate species being available on Site, or geographic location of the Site versus their species distribution not overlapping, or a combination of both. Considering this, and the expected limited footprint of the Scheme, invertebrates of conservation concern are not considered likely to be impacted as a result of the Scheme and will not be discussed any further within this assessment.
Designated sites	Negligible	The Site is not located within a statutory designated site. Two Sites of Special Scientific Interest (SSSI) occur within the 2 km search area, Ravensroost Wood SSSI and Distillery Farm Meadows SSSI. The nearest of these to Site is Ravensroost Wood SSSI approximately 700 m west of Site. However, due to the size of the proposed Scheme and distance between Site and the nearest designated sites, no further actions are required towards designated sites and designated sites will not be discussed any further within this assessment.
Ancient woodland	Negligible	No areas of ancient woodland were identified within the Site. Of the eleven parcels of ancient woodland within the 2 km search area, the nearest is associated with Ravensroost Wood SSSI, approximately 860 m north-west of Site. However, due to the restricted size of the proposed Scheme and distance between Site and the nearest areas of ancient woodland, no further actions are required, and ancient woodland will not be discussed further within this assessment.
Priority habitats	Negligible	No priority habitats are located within Site. Several parcels of priority habitats were identified within the data search comprising areas of deciduous woodland, traditional orchard, and lowland meadows. However, due to the restricted footprint of the works on Site, there are

[5] See the following links for butterfly species habitat requirements: small heath https://butterfly-conservation.org/butterflies/small-heath dingy skipper https://butterfly-conservation.org/butterflies/dingy-skipper white admiral https://butterfly-conservation.org/butterflies/white-admiral grizzled skipper https://butterfly-conservation.org/butterflies/grizzled-skipper pearl-bordered fritillary https://butterfly-conservation.org/butterflies/pearl-bordered-fritillary and marsh fritillary https://butterfly-conservation.org/butterflies/marsh-fritillary

Ecological Receptors	Potential for impact	Assessment and Justification
		no anticipated negative impacts on these priority habitats. Therefore, priority habitats are not discussed further within this assessment.
Bats	Negligible	No records of bats were identified from the data search. A single EPS licence for a common pipistrelle and brown long-eared bat roost was returned through MAGIC from 2016 - 2017 1 km south of Site at Park Farm. All habitats on and adjoining Site, hedgerows, wheat crop and improved grassland are of suitability for foraging bats. However, considering hedgerows will be subject to minor day time disturbance only, and the abundance of improved grassland and wheat crop in the surrounding landscape, a loss of such small areas of improved grassland and wheat crop are not considered to significantly impact foraging bats. No features with potential to support roosting bats, such as buildings, are either on Site or within a sufficient distance of the works to be potentially impacted. Furthermore, all trees within the hedgerows adjoining the Site were assessed as having negligible suitability to support roosting bats. Considering all of the above, bats will not be discussed any further within this assessment.
Badger	Negligible	No records of badger were identified from the data search. No field signs indicative of badger presence, such as guard hairs, droppings, dung pits, latrines, or setts were identified throughout the Site. The Site itself does offer some value in the form of foraging habitat due to the quality of improved grassland, wheat crop and hedgerow habitats present immediately adjacent to Site. However, due to the scope of the Scheme, and that removal of foraging habitat only is not an offence towards badgers, it is unlikely that badgers will be negatively impacted through the Scheme. As such, badger will not be discussed any further within this assessment.
Otter	Negligible	No recent records of otter were recorded during the data search. Due to the localised nature of the works, and no habitat of suitability for otter being impacted as a result of the Scheme, no impact to otter is anticipated. Therefore, otter will not be discussed any further within this assessment.
Water vole	Negligible	No recent records of water vole were recorded during the data search. The choked, dry ditch approximately 15 m

Ecological Receptors	Potential for impact	Assessment and Justification
		west of Site is the only habitat that may be considered of suitability to support water vole. However, water vole will typically use such a feature if it is connected to a more suitable wet ditch, water body or river. The ditch beneath the hedgerow west of Site is disconnected from any other such suitable water vole habitat. Due to the localised nature of the works, and no habitat of suitability for water vole being impacted as a result of the Scheme, no impact to water vole is anticipated. Therefore, water vole will not be discussed any further within this assessment.
Hazel dormouse	Negligible	No hazel dormouse records were returned from the data search. Though works are being undertaken immediately adjoining suitable habitat for hazel dormouse, namely the hedgerow along the southern Site boundary, due to the absence of any hazel dormouse records within the data search, and an absence of any hazel dormouse field signs identified during the extended phase 1 habitat survey, hazel dormouse are assumed absent on Site. As such, no impact to hazel dormouse is anticipated as a result of the Scheme. Therefore, hazel dormouse will not be discussed any further within this assessment.
White-clawed crayfish	Negligible	Due to the absence of any white-clawed crayfish records returned from the data search, the absence of any suitable habitat for white-clawed crayfish present on Site, and the localised nature of the works, no impact to white-clawed crayfish is anticipated as a result of the Scheme. Therefore, white-clawed crayfish will not be discussed any further within this assessment
Plants of conservation concern	Negligible	Due to an absence of any plants of conservation concern being identified within the data search, none being identified during the Site visit and the localised limited scale of the proposed works on Site, no negative impacts are anticipated on any plants of conservation concern as a result of the Scheme. Therefore, plants of conservation concern are not discussed any further in this assessment.
Invasive/non-native plant species	Negligible	No recent records of invasive/non-native plant species were identified within the data search or on Site. Therefore, invasive/non-native plant species are not discussed any further in this assessment.

7. Summary

- The key ecological constraints associated with the Scheme are birds, great crested newt, and reptiles.
- The Site exhibits habitat suitability for common species of reptiles with habitats such as the improved grassland, and artificial and natural refugia within Site, and hedgerows adjoining Site. Considering this, and the presence of reptiles within the desk study data, works must be conducted in a sensitive manner with respect to reptiles.
- Whilst no aquatic habitat is present on Site, suitable terrestrial habitat for great crested newt is present on Site in the form of improved grassland, hedgerows and artificial and natural refugia. Considering this, and the presence of a pond suitably contiguous and within commuting distance of the Site, works must be conducted in a sensitive manner with respect to great crested newt.
- Habitats such as hedgerows adjoining Site, and improved grassland and wheat crop within Site provide highly suitable habitat for nesting birds. Though not considered to require further surveys, breeding birds must be considered during the works.
- Observing all mandatory requirements stipulated within Chapter 8 with respect to reptiles, great crested newt, and breeding birds should result in any likelihood of an associated offence being committed being negligible.

8. Requirements and Recommendations

8.1 Requirements

Breeding Birds and Birds of Conservation Concern

- There is a low potential impact upon breeding birds from the proposed Scheme. Potential for impacts and subsequent offences being caused would be predominantly through the removal of habitat of nesting suitability, such as improved grassland (Photos 1 and 2 & TN3) and wheat crop (Photos 3, 4 and 7 & TN4) and disturbance of hedgerows during the Scheme (Photos 6 and 8).
- Any works which could impact nesting birds should ideally be undertaken outside of the typical bird nesting season (1st March – 31st August) to reduce the likelihood of offences being caused with respect to disturbing breeding birds.
- Prior to the removal or disturbance of any such habitats, a visual inspection for nesting birds and/or nesting activity will be undertaken.
- A breeding bird nest becomes protected from offence between adults gathering nesting material to structure the nest until the last dependent young birds stops returning to the nest.
- Commonly encountered activity indicative of breeding birds includes:
    - adult birds being observed carrying nest material,
    - eggs being observed within the nest,
    - adults carrying food towards the nest site or,
    - young birds being observed and/or heard at the nest site,
- Should any activity of breeding birds such as that described above be identified within the hedgerows, improved grassland, wheat crop, or any other habitat type on Site with potential to be impacted by the Scheme, the works in that location will require suspension until the last young bird is no longer dependent upon the nest site, or an appropriate exclusion zone to the nest is provided to allow works elsewhere to continue.

Reptiles

- Four records of viviparous lizard were returned from the data search from 2016 and 2018, approximately 1.5 km south-west of Site.
- Suitable habitat for reptiles, including viviparous lizard, is present on Site in the form of the artificial (TN2) and natural refugia objects (Photos 2 and 5 & TN1) and improved grassland (Photos 1 and 2 & TN3) which provide foraging, basking, hibernation, and shelter opportunities.
- Due to the presence of reptiles within the data search, and the abundance of suitable habitat and refugia on Site, it is recommended that all works which require the breaking of ground or disturbance/destruction/moving of refugia (whether natural (TN2) or artificial (Photos 2 and 5 & TN1) which may support reptiles is done so under the supervision of an ECoW.

- If reptiles are encountered during the works the ECoW will use their professional judgement to determine whether further action is required with respect to reptiles, other than simply ensuring that they are relocated to a position of safety during the works. This may take the form of a reptile mitigation strategy.
- The exact details of any reptile mitigation strategy required during works will be formalised by a suitably qualified ecologist prior to commencement of any works that may impact reptiles on Site. The implementation of the reptile mitigation strategy will also be supervised by a suitably qualified ecologist during works.

Great Crested Newt

- Due to suitable terrestrial habitat for great crested newt being present on Site and the occurrence of nineteen great crested newt records returned within the data search, further action towards preventing any impacts to great crested newt as a result of the Scheme must be practiced during the works.
- Great crested newt are known to be able to travel up to 500 m from a breeding pond where suitable contiguous habitat permits. Though the nearest records of great crested newt to Site are approximately 600 m west of Site, the pond installed approximately 130 m north of Site as part of the District Level Licensing Scheme for great crested newt may support great crested newts. As suitable habitat of improved grassland (Photos 1 and 2 & TN3) and wheat crop (Photos 3, 4 and 7 & TN4) is present between the Site and the DLL pond, the presence of great crested newt on Site is unable to be excluded.
- It is recommended that all works which require the breaking of ground or disturbance/destruction/moving of refugia (whether natural (TN2) or artificial (Photos 2 and 5 & TN1) which may support great crested newt is done so under the supervision of an ECoW.
- If great crested newt are encountered during the works, the Scheme will cease immediately, and a great crested newt mitigation licence will be submitted to Natural England ahead of the re-commencement of any works. To continue works in the knowledge that great crested newts occur within the impacted area without an appropriate Natural England licence may incur an offence.
- The exact conditions and requirements for the great crested newt mitigation licence will be formalised by a suitably qualified ecologist.
- Upon the granting of the great crested newt mitigation licence, the implementation of any licensable works will also be supervised by a suitably qualified ecologist during works.

If the Scheme does not commence within 12 months of the issuing of this assessment, an update survey should be undertaken to check for any changes to the status of breeding birds, reptiles, or great crested newt on Site.

8.2 Recommendations

It is recommended that the following ecological enhancements are considered for the final development design, in order to enhance the biodiversity of the Site post-development.

Breeding Birds and Birds of Conservation Concern

- Vegetation should be retained wherever possible throughout the Scheme. In doing so, with appropriate caution paid to any potential nesting birds already present, suitable nesting bird habitat should be maintained during the Scheme and be immediately available as suitable habitat for breeding birds post-Scheme.
- Whilst no impacts to barn owl are anticipated as a result of the Scheme, due to the suitability of the Site as foraging habitat for barn owl, it is recommended that a barn owl nest box is installed on the wider View Farm land ownership. Whilst the Site itself is unable to accommodate a barn owl box, due to an absence of features such as standalone mature trees or buildings, any barn owls utilising the Site for foraging would benefit from a nest box installed in the wider area.
- When installing a barn owl box a few key considerations should be observed to ensure that the feature is as appealing to barn owls as possible,
    - Nest boxes should ideally be installed on buildings (either externally or internally) or on standalone mature trees.
    - Nest boxes should be installed at least 3 m above the ground.
    - The opening or hole of the nest box should be visible, facing outwards ideally with a vantage point overlooking open countryside, or suitable foraging habitat such as the wheat crop (Photos 3, 4 and 7 & TN4) present on Site.
- More information on how best to situate a barn owl nest box, maintenance, options for either constructing or purchasing a suitable nest box and more is available via the Barn Owl Trust[6].

Reptiles and Amphibians, including Great Crested Newt

- A number of features could be included within the Scheme to enhance the suitability of habitat present for reptiles and amphibians.
- Records of viviparous lizard and great crested newt were returned within the data search. Suitable features such as the wood pile, adjoining manure heap, improved grassland (Photos 1 and 2 & TN3) and hedgerows adjoining Site (Photos 6 and 8) provide opportunities for basking and egg laying (with respect to viviparous lizard, grass snake and other reptiles), shelter, hibernation, and foraging on Site.

[6] https://www.barnowltrust.org.uk/barn-owl-nestbox/barn-owl-nestboxes/

- Through discussions with the Client on 19th July 2023, it is understood that features such as the wood pile are able to be left in situ and undisturbed during the works, in the interest of maintaining suitable habitat for reptiles and amphibians. If workable alongside the Scheme, we would recommend this approach.
- Immediately adjoining the wood pile is a large manure heap. Such habitat features are often used by reptiles, as they tend to have greater ambient temperatures than their surroundings. This encourages basking, shelter and hibernation for species such as viviparous lizard and slow-worm. As well as basking, shelter, and hibernation, it also provides suitable egg-laying substrate for grass snake. The Client had mentioned on the 19th July that the manure would be used at some point shortly after the survey. It is recommended that a manure heap may be installed on Site, which is not used and is undisturbed . The heap should be positioned in a sunny, preferably south-facing, quiet area, with vegetation allowed to grow in and amongst it.
- During these discussions with the Client on 19th July 2023, it was also mentioned that the islands within the surfaced track area (see Appendix 2, Figure 3) may be managed in a way to provide habitat suitability for reptiles, great crested newt, and other amphibians.
- It is recommended that all four islands within the proposed track layout are managed in such a way, if desired.
- If managed for reptiles and amphibians, vegetation should be cut as little as possible within the islands. If mowing or strimming is deemed necessary, it would be recommended that this is done in the form of strips within the sward, rather than wholesale mowing. The provision of strips will encourage basking for species such as viviparous lizard, slow-worm and grass snake.
- Suggestions for installations which may be incorporated within the islands are provided below:
- Compost heaps are excellent features for supporting reptiles and amphibians. Such a feature would provide a suitable substrate and surface for viviparous lizard to hibernate, shelter, forage and bask. The feature could largely comprise Site-won materials, such as branches, brash and dead logs as a bottom layer, and dead leaves, woodchip and cut vegetation forming the top layer. Ideally the top layer would also be supplemented with other materials such as compost, sawdust, and horse manure. The feature could also serve as a means of disposing of cuttings during general landscape maintenance throughout the Scheme's lifespan.
- As well as its suitability for viviparous lizard, the feature would also provide excellent suitability for species such as slow-worm and grass snake. Grass snake often utilise such features for egg laying as well as for hibernating, sheltering, foraging, and basking. Though grass snake have not been identified on Site, or within the data search, they are a highly mobile species, and may occur on Site even if not identified within the search area.

- Such a feature would also provide sheltering, foraging and hibernating suitability for amphibians, including species such as common frog, smooth newt, palmate newt and most notably great crested newt identified within the data search.
- The feature would ideally be at least 2 m in diameter and 1 m in height (or as large as the islands can afford).
- Another type of feature which could be installed on Site to benefit reptiles and amphibians would be the installation of hibernacula.
- The features could largely comprise Site-won materials, such as branches, brash and logs as a bottom layer, smaller twigs and brash as a secondary layer and soil and turf as the top layer, in the hope that vegetation on the top layer eventually establishes.
- The feature should ideally be buried to a depth of 1 m to promote opportunities for hibernating reptiles and amphibians, as well as being at least 1 m in height. Ideally, any hibernacula will be constructed on dry ground with a south facing orientation. The various storeys and top of the feature should vary in height and structure to promote different habitat niches.
- The use of the track area by horses and people would not be considered sufficient disturbance to deter reptiles or amphibians from using installed features such as compost heaps or hibernacula.
- As well as serving as habitat improvements for reptiles and amphibians, features such as compost heaps or hibernacula would also improve habitat for numerous species of invertebrate, small mammals and foraging birds.

9. References

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Appendix 1.Extended Phase 1 Habitat Survey Summary

Appendix 1 comprises the survey notes undertaken on 19th July 2023. These are all also indicated on the Extended Phase 1 plan within Appendix 1 Figure 2.

Target Notes

Table 2 – Summary of target notes identified during Extended Phase 1 Habitat Survey

Target Note Reference	OSGR	Notes	Photograph
TN1	SU 03210 87822	Wood pile, covered in nettle and bramble, with large manure pile in immediate proximity. Of suitability to support common species of reptile and great crested newt. Manure pile may be of particular use for slow-worm or egg-laying grass snake.	2 and 5
TN2	SU 03198 87824	Scattered refugia of suitability for reptiles and great crested newt. Comprising more natural refugia types such as rubble and wood, as well as artificial refugia such as carpet, brick, and concrete.	N/A
TN3	SU 03190 87845	Improved grassland comprises the south-western and western-most extent of habitat within the Site. Species present is typical of those usually found within the habitat type, including black medic, common poppy, hedge woundwort and red fescue with margins comprising species such as bramble, nettle, rosebay willowherb, great willowherb, and common hogweed.	1 and 2
TN4	SU 03250 87847	Cultivated/disturbed land – Arable, namely wheat crop for silage, comprises over 90% of the habitat type on Site. Wheat crop continues throughout the field the Site and comprises much of the surrounding landscape beyond. Though wheat is dominant throughout the habitat extent, other species present within the sward include brassica sp., broad-leaved dock, common bird's-foot-trefoil, common knapweed, crested dog's-tail, false oat-grass, and meadow vetchling.	3, 4 and 7

Extended Phase 1 Habitat Survey Map

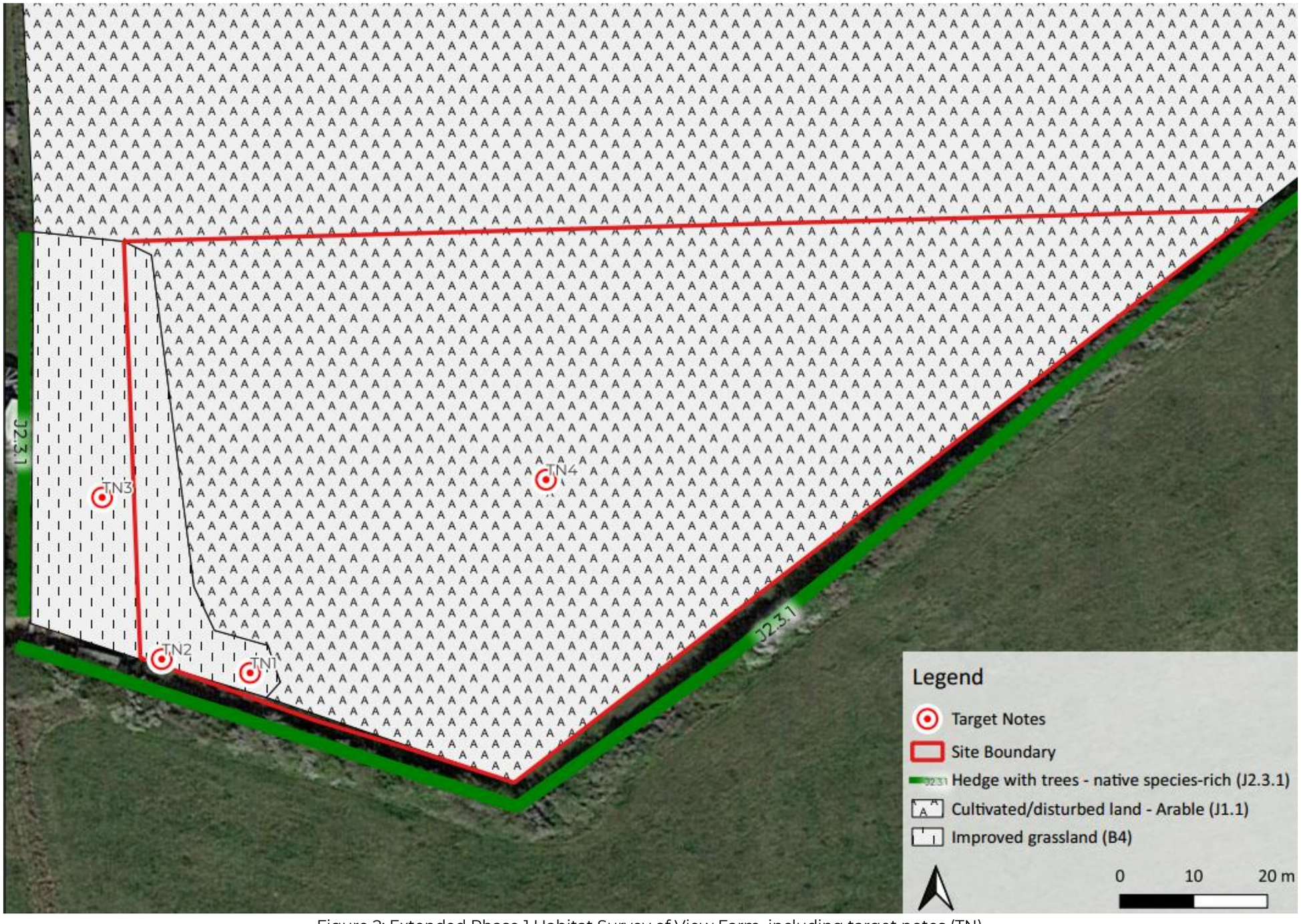


Figure 2: Extended Phase 1 Habitat Survey of View Farm, including target notes (TN)

Appendix 2. Scheme Plan



Figure 3: Scheme Plan, with indicative track lengths provided along each of the four boundary edges. Islands within the track area indicated.

Appendix 3. Photographs



Photo 1: General Site view, with improved grassland, wheat crop, manure pile and bounding hedgerow visible. See TN3 and TN1



Photo 2: Improved grassland, with manure pile, of suitability for reptiles and amphibians. Also visible, the hedgerow adjoining the southern Site boundary. See TN3 and TN1



Photo 3: Approximate boundary of northern Site extent (eastward orientation). See TN4



Photo 4: Approximate boundary of northern Site extent (westward orientation). See TN4



Photo 5: Wood pile with encroaching bramble and nettle, of suitability for reptiles and amphibians.



Photo 6: Hedge with trees (native species-rich) adjoining the eastern Site boundary.



Photo 7: Wheat field, forming the majority of the habitat type on Site. See TN4



Photo 8: Hedgerow with dry choked ditch approximately 15 m west of the western-most Site boundary