



Preliminary Ecological Appraisal

Ellen Road Farm, Newhey, Rochdale

Report Reference: BG24.242

August 2024



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1 Summary

- 1.1.1 Brindle & Green Ltd were commissioned by Root Power Ltd to undertake a Preliminary Ecological Appraisal incorporating a Phase 1 Habitat Survey and Protected Species Assessment at Ellen Road Farm, Newhey, Rochdale. This report summarises the potential ecological constraints to the full planning application for site clearance to facilitate the development of a battery storage facility and its associated infrastructure. Design plans are provided within Appendix 6 of this report. The survey was carried out on the 12th of June 20224.
- 1.1.2 The red line boundary is approximately 0.98ha in extent and comprises a section of agricultural grassland used for grazing bound by timber post and rail fencing. The site was evaluated to support Local value on a regional scale.
- 1.1.3 The habitats described within this report have the potential to support protected and/or notable species. As such, this report outlines important measures to protect species during site clearance, and recommendations to improve the biodiversity status of the site post development.
- 1.1.4 A full description of the recommendations can be found within Chapter 7. Table 1 is a summary of the ecological issues recommended for further consideration as a result of our initial investigations.
- 1.1.5 Results and recommendations contained within this report have been prepared by an experienced ecologist and are therefore the view of Brindle & Green Limited. The survey is based on information provided by our client, the development proposals, results of the desk study and our survey of the site. This report pertains to this information only.

Table 1: Ecological recommendations

Ecological Consideration	Recommendations (e.g. further survey, mitigation)	Timing
Habitats	Biodiversity Impact Assessment recommended to inform the units required to achieve a net gain, detailed in chapter 7.	During Design Phase
Breeding Birds	Works should be sympathetic to this group of species, with vegetation clearance undertaken following Reasonable Avoidance Measures (RAMS) outlined in chapter 7.	During Site Clearance (Optimal timing between October -March outside of breeding bird season)
Foraging and Commuting Bats	Works should be sympathetic to this group of species through sensitive lighting, detailed in chapter 7.	During and post construction
Badgers	Reasonable Avoidance Measures are recommended during construction phase, detailed in chapter 7.	Year Round, during development
Reptiles	Full reptile survey recommended comprising at least seven visits, detailed in chapter 7.	March – September (optimal timing April-May or September)
Mammal Species	Reasonable Avoidance Measures are recommended during site clearance and construction	During development

2 Introduction

- 2.1.1 The purpose of this assessment was to provide a Preliminary Ecological Appraisal of the site incorporating a Phase 1 Habitat Survey and Protected Species Assessment to establish the likelihood of the site supporting protected species. The survey provides detail on the need for any additional, more detailed protected species surveys, likely mitigation, and any opportunities for enhancement.
- 2.1.2 The red line boundary is approximately 0.98ha in extent and comprises a comprises agricultural grassland used for grazing bound by timber fencing. The site is located on the southeastern outskirts of Newhey, a suburb associated with the city of Rochdale. Commercial and residential development associated with Rochdale dominates the land to the north and west, while to the south the landscape supports an assemblage of arable and pastoral land.
- 2.1.3 The site is the subject of a full planning application for site clearance to facilitate the development of a battery storage facility and its associated infrastructure. Design plans are provided within Appendix 6 of this report.
- 2.1.4 The legislation relevant to protected species within the United Kingdom is summarised within Appendix 4.
- 2.1.5 Results and recommendations contained within this report have been prepared by an experienced ecologist and are therefore the view of Brindle & Green Limited. The survey is based on information provided by our client, the development proposals, results of the desk study and our survey of the site. This report pertains to this information only.

3 Methodology

3.1 Desk Study

- 3.1.1 Table 2 lists organisations and/or resources used as part of the desk study process. Data regarding any known statutory or non-statutory sites, in addition to any records for protected species, were requested from the following sources:

Table 2: Ecological Data Resources

Consultant	Requested data	Search radius	Date requested
Local Ecological Record Centre (Greater Manchester Ecology Unit (GMEU))	- Protected and Notable Species Records - Local, National and International Site Designations	2km	01/07/2024
Multi Agency Geographic Information for the Countryside (MAGIC)	- National and International site Designations - Granted European protected species Development (EPS) Licenses - Priority Habitat Inventory	2km	15/08/2024

3.2 Surveyors

- 3.2.1 The survey was carried out by Kinzie Watts MSc (Hons), Natural England Hazel Dormouse Licence Class 1 (2021-53219-CLS-CLS) Natural England Great Crested Newt licence (2021-53259-CLS-CLS), Principal Ecologist and Lloyd Wyatt BSc (Hons), Assistant Ecologist.
- 3.2.2 The survey was overseen by Lucinda Sweet PhD, MCIEEM Natural England Bat Licence (Class Level 2, 2019-9122-CLS-CLS), Great Crested Newt Licence (Class Level 1, 2016-22852-CLS-CLS), Director.

3.3 Survey Conditions

- 3.3.1 The survey was undertaken at 12:00pm on the 12th of June 2024. The outside temperature was recorded as 12°C, with dry conditions, and 1/8 cloud cover.

3.4 Extended Phase 1 Habitat Survey

- 3.4.1 A Phase 1 habitat survey was undertaken following survey guidance (JNCC 2007) to establish the presence and distribution of habitat types within the site and potential ecological constraints to development. A Phase 1 Habitat Map was produced (Appendix 1) and where additional details were required Target Notes have been provided (Appendix 2). A plant species list (Appendix 2) summarising all plants identified on site was produced during the survey and all scientific nomenclature was produced according to Stace (2010).
- 3.4.2 This survey was extended to note the potential for habitats on site to support protected and/or notable species and for evidence of any such species. The habitats on site were assessed for their suitability to support protected species in relation to the habitat type found at the site. Any incidental sightings or field signs were noted at the time of survey. Where evidence of, or the confirmed presence of a protected species was identified, further species-specific surveys may be recommended to ensure that the presence or otherwise of a legally protected species is fully considered prior to the determination of any planning approval or to guide an EPS development licence.
- 3.4.3 Legislation, guidance and methodology for species relevant to this site are presented in full within Appendices 4 and 5 of this report.

3.5 Site Evaluation

- 3.5.1 Following the ecological appraisal, the site was classified into one of six groups (Table 3), to indicate whether the site is considered to hold ecological value on a local, national or international scale. This evaluation is intended as a guide and only targeted survey work can establish the significance of protected species populations onsite.

Table 3: Definitions of each of the six evaluation brackets, indicating the importance of each habitat type and an example of their possible habitat status. (Table constructed following The CIEEM EcIA Guidelines, Terrestrial, Freshwater and Coastal (2016) pages 16 -17)

Ecological Value	Comparable Example
International	An internationally designated site or candidate site, including habitat or species included within Special Protection Areas (SPA) / Special Areas of Conservation (SAC), Ramsar Sites, listed under Annex 1 of the Habitats Directive
National	Sites designated at UK level, e.g. Sites of Special Scientific Interest (SSSI), supporting species considered nationally threatened or rare
Regional	A regularly occurring regionally or county significant population/number of any nationally important species
County	A feature identified as of critical importance within Section 41 of the NERC Act (2006)
District	Key Habitat type included within the National Biodiversity Action Plan (BAP) /NERC Habitat of Principle Importance (HPI). A regularly occurring, locally significant number of a regionally important species
Local/Site	Designated sites, such as Sites of Biological Importance (SBIs) or viable habitat / species populations of value at a county level (LBAP)

3.6 Limitations

- 3.6.1 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. The protected and notable species assessment provides a preliminary view of the likelihood of these species occurring on site, based upon the suitability of the habitats, known distribution of the species in the local area and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group.

3.7 Report Lifespan

- 3.7.1 Given the transient nature of the subject we would consider the survey results contained to be accurate for 2 years.

4 Site Context

4.1 Site Description

- 4.1.1 The application site can be found at SD 92529 11490, The site is located on the southeastern outskirts of Newhey, a suburb of the city of Rochdale. The site comprises a section pastoral field of Improved grassland that is bordered by timber fencing and stonewalls.
- 4.1.2 Commercial and residential development associated with Rochdale dominates the land to the north and west, which is separated from the site by a substantial terrestrial barrier in the form of the M63. The south the landscape is dominated by arable and pastoral farmland connected via a network of stone walls, scattered trees and pockets of woodland. Meadow North of Moss Gate Local Wildlife Site (LWS) is also approximately 0.9km to the southeast.



Figure 1: OS map of the project site and surrounding area. Red line boundary depicts application site.

4.2 Zone of Influence

- 4.2.1 The zone of influence describes the geographic extent of potential impacts of a proposed development. The Local scale of the proposed development reduces the likelihood of impact to the surrounding area, however suitable connective vegetation could influence the presence of protected species within the application boundary. The zone of influence was considered to be 250 metres from the application boundary for amphibians and reptiles, 30 metres for terrestrial mammals such as badgers, and within the area of impact for breeding birds and bats.

5 Results

5.1 Desk Study

Designated Sites

- 5.1.1 The site was subjected to a search for designated sites within a 2km radius of the site using data supplied by the Local Records Centre (Greater Manchester Ecology Unit (GMEU)) and the online desk-based resource MAGIC.
- 5.1.2 The data supplied by GMEU was received on the 17/07/2024 and is summarised within Table 4. The search revealed two statutory and six non-statutory sites within a 2km radius of the site.
- 5.1.3 A search of the online resource Magic Maps found no additional sites with Statutory designations within the 2km radius search.

Table 4: Summary of Designated Sites within a 2km radius of the application site

Site Name	Grid Ref.	Status	Reason for Designation	Distance from site
Stanney Brook	SD 918 121	Local Wildlife Site (LWS)	Supports a number of habitats including marsh, acid grassland and flush communities.	0.9km NW
Meadow North of Moss Gate	SD 931 107	LWS	Area of farmland including pasture and hedgerows.	0.9km SE
Marsh near Turf Hill	SD 913 117	LWS	Area of marsh, scrub and woodland.	1.2km W
Newhey Lodge	SD 940 113	LWS	Site including the River Beal and a number of ponds	1.5km E
Sudden Brook	SD 913 102	LWS	A tributary of the River Roch	1.7km SW
Rochdale Canal (Scowcroft to Warland)	SD 914 127	Site of Special Scientific Interest (SSSI) Special Area of Conservation (SAC) LWS	Supports a significant population of floating water-plantain in a botanically diverse water plant community which also holds a wide range of pondweeds	1.7km NE

Protected Species Assessment

5.1.4 Data supplied by GMEU also included records of protected species. Full datasets are presented within Appendix 8 of this report. A summary of the closest or most relevant records can be seen in Table 5.

Table 5: Summary of relevant protected and priority species records

Species	Grid Ref.	Date	Description
Birds			
Bullfinch (<i>Pyrrhula pyrrhula</i>)	SD 906 118	01/08/2021	240 records with the most recent approximately 1km E
Curlew (<i>Numenius Arquata</i>)	SD 939 112	05/06/2017	4 records with the most recent approximately 1km E
Lapwing (<i>Vanellus vanellus</i>)	SD 939 112	01/01/2021	41 records with the closest approximately 1km E
Skylark (<i>Alauda arvensis</i>)	SD 9291 1044	23/04/2021	76 records with the most recent approximately 1km S
Song thrush (<i>Turdus philomelos</i>)	SD 942 108	31/05/2021	124 records most recent approximately 1.8km W
Yellow wagtail (<i>Motacilla flava</i>)	SD 920 123	08/05/2022	11 records most recent approximately 1km NW
Mammals			
Badger (<i>Meles meles</i>)	Confidential	04/2022	14 records within 2km of site
Brown hare (<i>Lepus europaeus</i>)	SD 939 112	01/02/2021	8 records with the closest approximately 1.3km E
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	SD 905 114	28/08/2022	57 records with the closest approximately 0.8km N
Lesser noctule (<i>Nyctalus leisleri</i>)	SD 926 121	24/5/2021	4 records with the most recent approximately 0.75km N
Nathusius's pipistrelle (<i>Pipistrellus nathusii</i>)	SD 925 130	01/08/2020	3 records with the most recent approximately 1.5km N
Herpetofauna			
Common toad (<i>Bufo bufo</i>)	SD 940 113	08/08/2024	7 records 1.4km E
Great crested newt (<i>Triturus cristatus</i>)	SD 9435 1100	18/06/2017	13 records with the closest 1.9km W

- 5.1.5 Magic Maps revealed two granted EPS licence within 2km of the site: The first for the destruction of a resting place for brown long-eared and common pipistrelle bats, which expired in 31/05/2021, located 1.8km north from the site. The second for the destruction of a resting place for great crested newts, which expired in 31/07/2017, located 1.8km north from the site.

Priority Habitats

- 5.1.6 Data supplied by MAGIC includes a UKBAP priority habitat inventory. MAGIC returned no priority habitat on or adjacent to the application site.

5.2 Habitats

- 5.2.1 The habitat types recorded on site are summarised below, and the frequency and distribution of habitat types is displayed within a Phase 1 Habitat Survey Map (Appendix 1 and 2).
- 5.2.2 Table 6 provides a list of habitat types present on site along with their inclusion (or otherwise) as a National and / or Local Habitat of Principal Importance (HPI) (Previously referred to as Biodiversity Action Plan (BAP)) (It should be noted that additional information is included within the text where a classification under Phase 1 survey methodology does not mirror habitat types considered to be conservation priorities).

Table 6: JNCC Habitat Types found on site and inclusion within UK BAP/HPI habitats

Habitat Type	N HPI	L HPI	N/A
Improved grassland			✓

Improved Grassland

- 5.2.3 The grassland within the site consisted of improved grassland and covered all of the 0.98 ha (Figure 2 The full results of the NVC survey will be made available separately.) .The field was lightly grazed by cattle in places to a sward height ranging from 10cm to 40cm. Species included abundant soft rush (*Juncus effusus*), tufted hair-grass (*Deschampsia cespitosa*) and creeping bent (*Agrostis stolonifera*) with frequent cock's foot (*Dactylis glomerata*) and Yorkshire fog (*Holcus lanatus*), crested dog's-tail (*Cynosurus cristatus*), red fescue (*Festuca rubra*) and compact rush (*Juncus conglomeratus*) were also recorded occasionally. Herb species included occasional creeping buttercup (*Ranunculus repens*), ribwort plantain (*Plantago lanceolata*), common sorrel (*Rumex acetosa*), oxeye daisy (*Leucanthemum vulgare*) and white clover (*Trifolium repens*).

- 5.2.4 A subsequent National Vegetation Classification (NVC) survey was completed on the 15th of August 2024 and supported the classification of the grassland as improved grassland. The full results of the NVC survey will be made available separately.



Figure 2: Improved grassland within the centre of the Site.

Invasive Weeds Assessment

- 5.2.5 An assessment of the site was made to establish the presence of invasive weeds included on schedule 9 of the Wildlife and Countryside Act 1981 (as amended).
- 5.2.6 No recordings of schedule 9 invasive weed species were found within, or adjacent to the application area.

5.3 Fauna

Breeding Birds

- 5.3.1 The Assessment was undertaken during the breeding bird season. Four species of bird were recorded on site during the survey including skylark (*Alauda arvensis*), magpie (*Pica pica*), goldfinch (*Carduelis carduelis*) and carrion crow (*Corvus corone*).
- 5.3.2 The grassland on site provides suitable habitat for a number of ground nesting birds, including birds of conservation concern identified within 2km of the site during the desk study such as skylark, lapwing and curlew.
- 5.3.3 Based on a review of the habitat types on site and the list of bird species recorded within the data search, the site is considered to support an assemblage of bird species including some species considered to be of high conservation concern that are either legally protected or UK BAP species.

Bats

- 5.3.4 The data search returned 64 records of bat foraging and commuting activity, with the closest record located approximately 0.75km north of the Site, pertaining to lesser noctule bats.

Roosting Bats

- 5.3.5 The site was exclusively grassland and manmade boundary features, all of which lack suitability to support roosting bats.

Foraging and Commuting Bats

- 5.3.6 The site supported a limited number of features considered suitable to support commuting and foraging bats. The grassland on site may provide valuable resources for foraging bats. While the linear vegetative features adjacent to the site's northern boundary may provide possible commuting pathways to the wider environment, the site is poorly connected to the wider rural landscape to the south through timber fencing. The site is therefore considered to provide 'Low' suitability habitat for foraging and commuting bats.

Badgers

- 5.3.7 Records relating to certain protected species including badger sett locations are sensitive in nature, and due to the risk of public interference are kept confidential. The data search returned 14 records of badger activity within 2km of the Site.
- 5.3.8 The data search returned no records of badgers within 2km of the site. No evidence of badger setts, or activity such as mammal runs, snuffle holes and latrines were found during the ecological appraisal of the site. Additionally, the site supported no habitat features such as dense scrub and woodland which were considered conducive to supporting badger populations. The extent of the site, and the location within an agricultural dominated landscape suggest that this transient species could forage or commute within the surrounding environment but are not likely dependant on habitats within the redline boundary.

Great Crested Newts

- 5.3.9 The data search returned 13 records within 2km of the site, with the nearest record located 1.9km west of the site, beyond the M62.
- 5.3.10 The site supported extensive Improved grassland with a varied sward structure which is considered suitable to support the terrestrial phase for this species. No water bodies were positioned within the application site and one pond was identified within 250m of the site (Figure 3 and Table 7). This pond lacked any major terrestrial barriers to prevent dispersal of GCN between it and the Site. Additionally, Pond 1 was assessed and assigned a GCN Habitat Suitability Index (HSI) score (Oldham et al, 2000) displayed within Table 8.

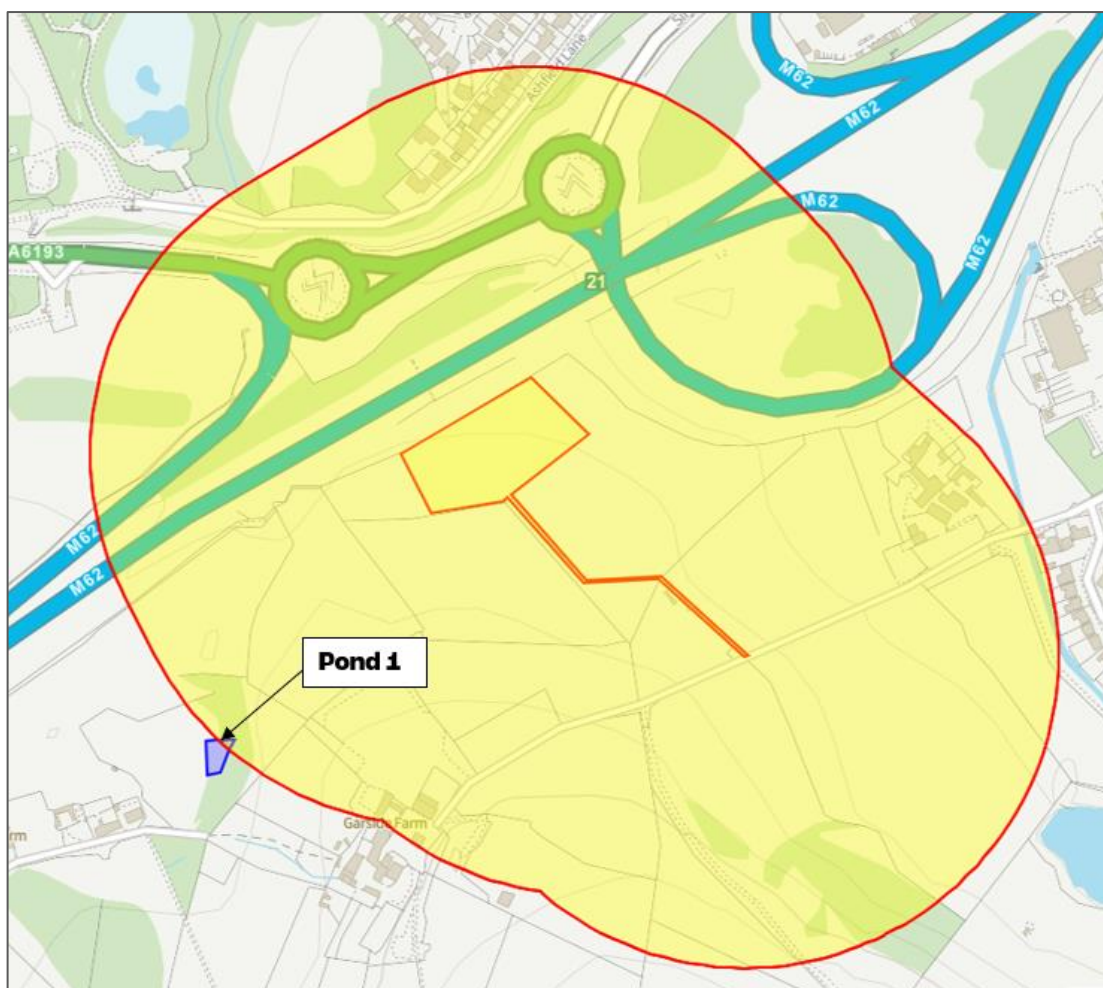


Figure 3: OS Map showing pond locations within a 250-metre radius of the site. Grid references and further detail on their suitability for GCN are evaluated in Table 7.

Table 7: Pond Locations and Suitability for Great Crested Newts

Pond Number	Grid Ref.	HSI Score	Distance from site
P1	SD 92344 11251	0.66 – Average	230m SW

Table 8: Images and Pond Descriptions

Image	Pond description
Pond 1	
	Pond 1 is 420m ² in area and positioned 190 southwest of Site. Bordered by grassland, scrub, and woodland. Little emergent vegetation and evidence of livestock use.

5.3.11 An eDNA survey and subsequent analysis was completed on Pond 1 on the 14th of May 2024 which did not detect the presence of Great Crested Newts within the waterbody. Full results are available in Appendix 10 of this report.

Reptiles

5.3.12 The site supported a suitable habitat matrix to support reptiles such as grass snake (*Natrix helvetica*), common lizard (*Viviparous lizard*) and slow worm (*Anguis fragilis*). The extensive grassland on site provided a variable sward structure and opportunities for foraging and the steep topography of the site provided opportunities for basking. While the offsite scrub and scattered trees adjacent to the northern boundary offered dappled shade and suitable reptile refugia such as deadwood suitable for hibernation.

Mammal Species of Principal Importance

5.3.13 The NERC Act 2006, Section 41 highlights 17 species of principal importance within England.

Western European Hedgehog (*Erinaceus europaeus*)

5.3.14 The grassland within the application boundary were considered suitable for supporting foraging and commuting Western European hedgehog.

Brown Hare (*Lepus europaeus*)

- 5.3.15 The data search returned 8 records within 2km of the site, with the nearest record located 1.3km east of the Site.
- 5.3.16 No evidence of this species was recorded on site during the preliminary assessment. However, the site was considered suitable for foraging brown hare.

6 Evaluation

6.1 Development Proposals

- 6.1.1 The site is the subject of a full planning application for site clearance to facilitate the development of a battery storage facility and its associated infrastructure. Design plans are provided within Appendix 6 of this report.

6.2 Desk Study Impacts

- 6.2.1 Direct impacts on nearby designated sites as a result of the proposed development are considered unlikely. The application site is positioned over 0.9km of the closest two LWS recorded within the data search. Stanney Brook is positioned to the northwest of the site, beyond the M62, a motorway providing a barrier to terrestrial species dispersal. Meadow North of Moss Gate is located 0.9km to the southeast, although linear features could connect to this site, it is difficult to substantiate an effect from the type of development proposed. The initial proposals set out for the site (Appendix 6) show that the extent of the development proposals are contained within the site boundary, and impacts on locally designated sites are considered unlikely.
- 6.2.2 The site lies within an Impact Risk Zone (IRZ) for Rochdale Canal SSSI, however, the proposed development does not meet the criteria for the IRZ, as such no further action is required. Overall, it is considered that direct impacts on nearby designated sites as a result of the proposed development are unlikely.

6.3 Habitats

- 6.3.1 The habitats on site have been evaluated as having local value in relation to the immediate surroundings and a regional context.

6.3.2 The site was dominated by Improved grassland; the classification of which was confirmed via a NCV survey completed on completed on the 15th of August 2024, the full results of which will be made available separately.

6.3.3 In England, Biodiversity Net Gain (BNG) is mandatory from February 2024 under Schedule 7A of the Town and Country Planning Act 1990, as inserted by Schedule 14 of the Environment Act. Therefore, the site must undergo a Biodiversity Net Gain assessment, further details of which are provided in Chapter 7.

6.4 Breeding Birds

6.4.1 All wild birds, their eggs and nests are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure, or take any wild bird whilst nesting, or take, damage or destroy the nest of any such bird while in use or being built. In addition, species listed on Schedule 1 of the Wildlife and Countryside Act 1981 or their dependant young are afforded additional protection from disturbance whilst they are at their nests.

6.4.2 The vegetation on site was considered to provide suitable nesting habitat for common bird species. In the absence of mitigation direct or indirect impacts on individual birds, their young, eggs and habitats could occur during site clearance.

6.4.3 Chapter 7 sets out important guidance on measures to avoid impacts on this species and measures to support its conservation status.

6.5 Bats

6.5.1 All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat.

Roosting Bats

6.5.2 The redline boundary does not support habitats suitable for roosting bats and as such they are not discussed further in this report.

Foraging and Commuting Bats

- 6.5.3 The offsite vegetation adjacent to the sites northern boundary provides suitable foraging and commuting habitat for bats from the site to the wider environment. Although these features are planned to be retained by the development, impacts such as increased lighting levels could lead to the disturbance of commuting and foraging habitat utilised by local bat populations, impacting their commuting behaviour.
- 6.5.4 Chapter 7 sets out important guidance on measures to avoid impacts on this species and measures to support its conservation status through a sensitive lighting scheme.

6.6 Badgers

- 6.6.1 Under the Protection of Badgers Act 1992, in England and Wales it is an offence to wilfully kill, injure, disturb or take any badger, or intentionally or recklessly damage, destroy, or obstruct access to any part of a badger sett.
- 6.6.2 There was no evidence of badger activity within zone of influence, however the rural location of the site and data records suggest that badgers may be present in the wider environment and could forage and commute through the red line boundary on an intermittent basis.
- 6.6.3 Chapter 7 sets out important guidance on measures to avoid impacts on this species and measures to support its conservation status.

6.7 Great Crested Newts

- 6.7.1 Great crested newts and their eggs, breeding sites and resting places are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017 (as amended).
- 6.7.2 There are no ponds within the site itself, and the single pond within the zone of influence was confirmed not to support a GCN population through eDNA testing (Appendix 10). GCN are therefore not considered a constraint to the application and not discussed further in this report.

6.8 Reptiles

- 6.8.1 Reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) making it illegal to intentionally kill or injure reptiles.
- 6.8.2 No evidence of reptiles was recorded during the survey; however, the site supported a suitable habitat matrix comprising grassland with a variable sward structure. As such it is therefore possible that harm or injury could be sustained to this group of species during the pre-construction clearing of the site.
- 6.8.3 Chapter 7 sets out the need for further survey work to determine the presence / likely absence of reptiles at the site and, if present, inform mitigation/compensation to avoid impacts on this group and support their conservation status.

6.9 Mammal Species of Principal Importance

- 6.9.1 The NERC Act 2006, Section 41 highlights 17 species of principal importance within England. This includes several species of bat, however these have been addressed in section 6.5.

Western European Hedgehog and Brown Hare

- 6.9.2 The habitats on site were considered conducive to supporting Western European hedgehog and Brown Hare. Habitats including the rough grassland suitable foraging, refuge and commuting habitats for these species.
- 6.9.3 Chapter 7 provides recommendations aimed at safeguarding this species during construction, and measures to facilitate their use of the site post-development.

7 Recommendations

The site should be the subject of further ecological survey works and/ consideration to produce an Ecological Impact Assessment, where the following indices will be assessed and evaluated further to establish the extent of impact to the ecological receptors recorded within the zone of influence of the site.

This survey can be used to guide the Master Plan layout to ensure that mitigation is employed to retain and enhance local biodiversity where possible. Efforts should be made to support National and Local Biodiversity Action Plans, achieve a 10% Biodiversity Net Gain Post development and seek opportunities to incorporate ecological enhancements within the proposed development as detailed within the National Planning Policy Framework (2023), which seeks biodiversity enhancements through the planning process, and the Environment Act 2021.

7.1 Habitats

Habitats	Timing
Recommendations	
The site should be subjected to a Biodiversity impact Assessment to ascertain habitat value and number of post development units to achieve a 10% net gain.	During design stage
Enhancement Prescriptions	
Design proposals may require amendment following the results of further survey work.	During design stage

7.2 Breeding Birds

Breeding Birds	Timing
Recommendations	
The grassland on site provides suitable habitat for breeding birds. Given their protection, development must be sympathetic to the value of this habitat and potential impacts on breeding birds, their eggs, nests and young. The breeding bird season is generally accepted as being between March and September. Consideration and implementation must be given to the following options most appropriate to the scheme. a) Undertake vegetation clearance between the months of October and February where possible. b) Clearance between the months of March and September should be subjected to a search for active birds' nests 24 hours prior to commencement of works.	Works outside of the breeding season (Oct-Feb) If unachievable, follow steps in recommendation.
Enhancement Prescriptions	
Soft landscaping proposals should seek to include native planting for the benefit of biodiversity, guided by a biodiversity impact assessment.	During design stage

7.3 Foraging and Commuting Bats

Foraging and Commuting Bats	Timing
Recommendations	
The extent of disturbance to foraging and commuting bats within the area should be reduced where possible by employing a sensitive lighting scheme during construction works, and artificial security lighting should not be installed post construction in a way which directs lighting towards the hedge boundaries and mature trees If lighting is required, a scheme should be devised and positioned to have minimal disturbance following the guidance of an ecologist. Any lighting used during the development should be directed away from the north-western boundary with overspill less than 1lux (ideally 0) onto suitable habitats.	During and post development
Enhancement Prescriptions	
Soft landscaping proposals should seek to incorporate native tree and shrub species wherever possible, which are beneficial to native invertebrate species, the primary component of UK bat species' diets. Planting should consider species that attract night-flying insects such as night-scented stock (<i>Matthiola longipetala</i>) and evening primrose (<i>Oenothera biennis</i>).	During design stage

7.4 Badgers

Badgers	Timing
Recommendations	
Appropriate precautions should be employed before and during construction works to prevent harm to this protected species. - A Pre-works check of the site should be undertaken within three months prior to the onset of construction related activities. - Any exposed excavations to be left overnight are to be covered at the end of each working day or include a means of escape for any fallen animals (e.g. a scaffolding plank). Any temporarily exposed open pipes are to be capped to prevent badgers gaining access. - Should badgers or any evidence of badgers be encountered during the construction phase, all works should cease, and the advice of a suitably qualified ecologist should be sought	Pre and during development

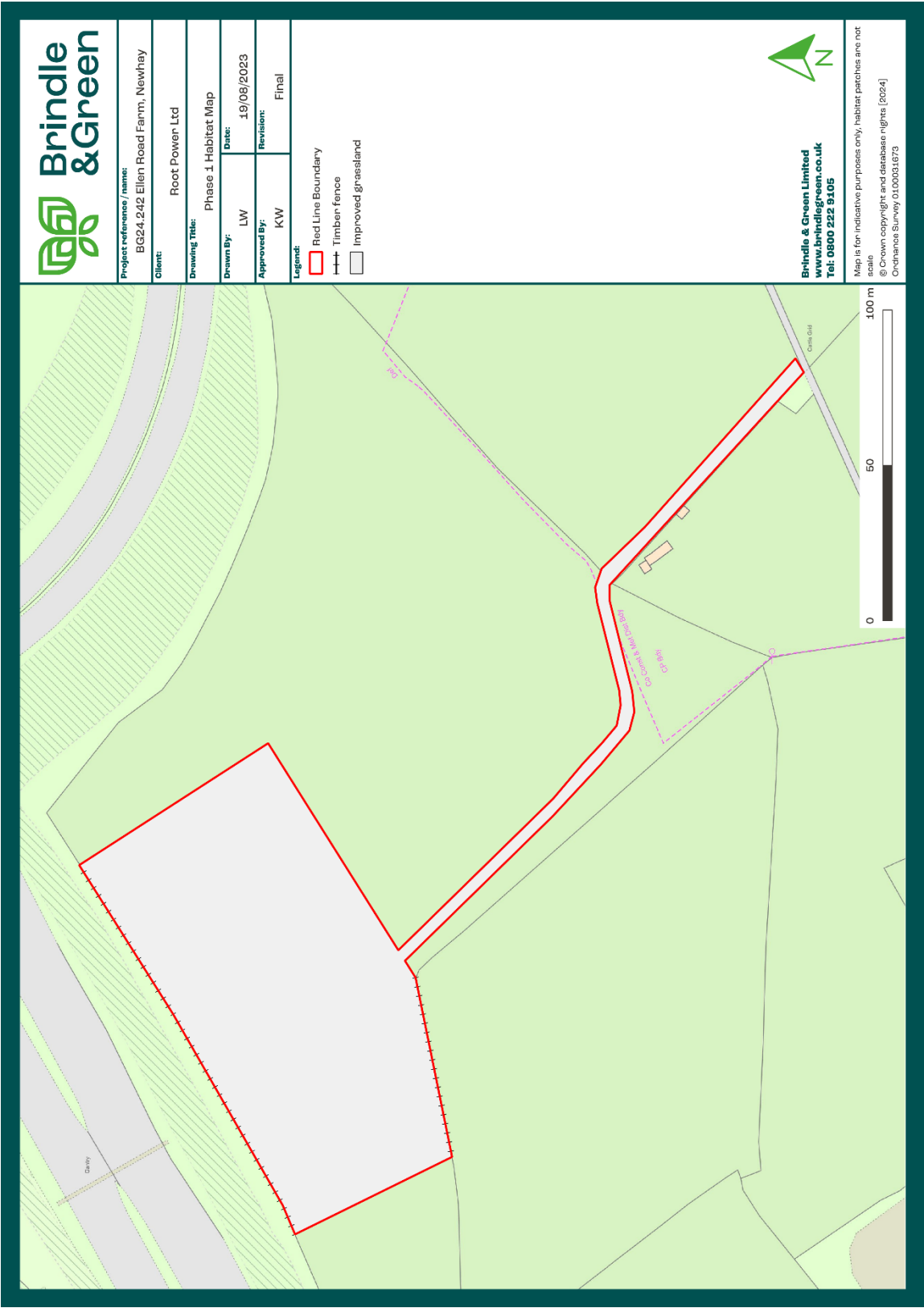
7.5 Reptiles

Reptiles	Timing
Recommendations	
Habitat features such as rough grassland, scrub and deadwood were considered highly conducive to finding this species on site. To establish whether reptiles are using the site it is recommended that suitable habitat patches are subjected to a full reptile presence / absence survey at the appropriate time of year.	Seven visits in suitable weather conditions Timing: March – September All survey work required prior to determination of planning application.
Enhancement Prescriptions	
Design proposals may require amendment following the results of further survey work.	During design stage

7.6 Mammal Species of Principal Importance

Mammal Species of Principal Importance	Timing
Recommendations	
Hedgehogs and brown hare may use the site for foraging or commuting purposes. The recommended reasonable avoidance measures should be followed: - Any temporarily exposed open pipes are to be capped to prevent hedgehogs or brown hare gaining access. - Undertake works during daylight hours. - The vegetation should be checked prior to removal. - Search areas of deadwood, brash, and discarded items by hand before removing. - If burning any cleared vegetation, carry out immediately after piling to prevent hedgehogs moving in prior to burning. - Any exposed excavations to be left overnight are to be covered at the end of each working day, or include a means of escape for any fallen animals (e.g., a scaffolding plank).	During clearance and development
Enhancement Prescriptions	
The inclusion of 'hedgehog highways' should be implemented into the design of the proposed fencing whereby a 13cm x 13cm hold should be cut into the base of fences creating a corridor across the site for hedgehogs.	During design stage

Appendix 1 - Phase 1 Habitat Plan



Appendix 2 - Phase 1 Species List

Table 9: Plant Species List with DAFOR Scale

Scientific nomenclature follows Stace (2010) for vascular plant species and common names follow BSBI List of British & Irish Vascular Plants and Stoneworts.

Please note that this plant species list was generated as part of a Phase 1 Habitat survey and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, LF = locally frequent

Common Name	Scientific Name	Estimated Abundance (DAFOR)
Bramble	<i>Rubus fruticosus</i>	R
Broad-leaved Dock	<i>Rumex obtusifolius</i>	F
Common Bistort	<i>Bistorta officinalis</i>	O
Common Sorrel	<i>Rumex acetosa</i>	O
Creeping Buttercup	<i>Ranunculus repens</i>	O
Crested Dogs-tail	<i>Cynosurus cristatus</i>	O
Curly Dock	<i>Rumex crispus</i>	F
Greater Birdsfoot Trefoil	<i>Lotus pedunculatus</i>	O
Meadow Foxtail	<i>Alopecurus pratensis</i>	O
Meadow Vetchling	<i>Lathyrus pratensis</i>	F
Perennial Rye-grass	<i>Lolium perenne</i>	O
Red Clover	<i>Trifolium pratense</i>	O
Red Fescue	<i>Festuca rubra</i>	F
Rough Meadow-grass	<i>Poa trivialis</i>	F
Selfheal	<i>Prunella vulgaris</i>	O
Soft Rush	<i>Juncus effusus</i>	A
Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>	O
Tufted Hairgrass	<i>Deschampsia cespitosa</i>	F
White Clover	<i>Trifolium repens</i>	A
Willow Herb	<i>Epilobium sp.</i>	F
Yorkshire Fog	<i>Holcus lanatus</i>	A

Appendix 3 – General References

Bell, S. McGillivray, D. (2006) Environmental Law. 6th ed. Oxford University Press.

British Standards Institution (2013) BS 42020: Biodiversity – Code of practice for planning and development, British Standards Institution London

Byron, H (2000) Biodiversity and Environmental Impact Assessment: A Good Practice Guide for Road Schemes. The RSPB, WWF-UK, English Nature and the Wildlife Trusts, Sandy.

CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines, (4th edition). Bat Conservation Trust, London. ISBN-978-1-7395126-0-6

Defra (2007) Hedgerow Survey Handbook; A standard procedure for local surveys in the UK. Defra, London.

Gilbert G, Gibbons DW, Evans J. (1998) Bird Monitoring Methods: Breeding Bird Survey (pages 389-393). RSPB.

Harris S, Cresswell P and Jefferies D (1989). Surveying Badgers.

Joint Nature Conservation Committee (JNCC) Handbook for Phase 1 habitat survey (2003). JNCC.

Langton T, Beckett C and Foster J (2001) Great Crested Newt Conservation Handbook. Froglife, Halesworth.

Mitchell-Jones A.J. McLeish, A.P. (2004) Bat Workers Manual (3rd Edition). Joint Nature Conservation Committee.

Mitchell-Jones A.J. Bat Mitigation Guidelines 2004. English Nature.

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

Rodwell, J.S. Joint Nature Conservation Committee (JNCC). National Vegetation Classification: Users' handbook (2006). JNCC.

Rose, F. (2006). The Wild Flower Key (Revised edition). Penguin books Ltd, London

Stace, C. (2010). Field Flora of the British Isles. Cambridge University Press

Sutherland, W.J. (1996) Ecological Census Techniques. Cambridge University Press.

Treweek, J. (1999) Ecological Impact Assessment. Blackwell Science.

Appendix 4 – Legislation, Policy and Guidance

Articles of British wildlife and countryside legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to. The articles of legislation are:

- The Wildlife and Countryside Act 1981 (as amended)
- The Conservation of Habitats and Species Regulations 2017 (as amended)
- Department for Communities and Local Government. National Planning Policy Framework. (2023)
- EC Council Directive on the Conservation of Wild Birds 79/409/EEC
- The Protection of Badgers Act 1992
- The Natural Environment and Rural Communities Act 2006 (Including National and Local Biodiversity Action Plan (LBAP / HPI))
- Hedgerow Regulations 1997
- The Environment Act 2021
- Town and Country Planning Act 1990

Appendix 5 – Legislation, Guidance and Methodology

Breeding Birds

All nesting birds are protected under the Wildlife and Countryside Act 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition, for species listed on Schedule 1 of the Wildlife and Countryside Act 1981 it is an offence to intentionally or recklessly cause disturbance at, on or near an 'active' nest.

The bird breeding season is typically accepted to start in February/March and continue through until September/October, however breeding birds can be found all year round depending on the given species and climatic conditions.

A site's habitat composition, locality, association to designated sites as well as current usage and management are all considered in the decision as to whether further bird related surveys are required. In addition, surveys may be recommended based on incidental bird records collected during a Preliminary Ecological Appraisal, species identified within an ecological data search or target species listed within a local biodiversity action plan.

Bird surveys are carried out in accordance with:

- Gilbert G, Gibbons DW, Evans J. (1998) Bird Monitoring Methods. RSPB.

Bats

Roosting Bats

All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat.

Areas of concern; can be encountered in many types of structure and care should therefore be taken when undertaking maintenance or demolition of suitable structures and trees.

Site assessments of buildings, commuting and foraging habitat and trees are undertaken in accordance with:

- Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines, (4th edition). Bat Conservation Trust, London. ISBN-978-1-7395126-0-6 (Table 10, Table 11 and Table 12).

Preliminary Ecological Surveys look for evidence of bat presence such as feeding remains, bat droppings, roosting individuals and staining around potential access points. The suitability of site features are also assessed because absence of bat evidence, is not confirmation of a negative result.

Within trees, features searched for include; natural holes, woodpecker holes, cracks/splits in major limbs, loose bark, hollows, and dense cover of ivy over the tree. If evidence is found, or a building supports features conducive to supporting roosting bats then further presence / absence bat surveys and/or roost characterisation surveys will be recommended.

Foraging and Commuting bats

Habitat features on site are assessed for their suitability to support foraging and commuting bat populations. This assessment is independent from the suitability of the site to support roosting bats, and provides information on the likeliness of bat foraging activity within the local environment, and the dependence of individuals on these features for commuting to alternative roosting sites, foraging and migration.

Table 10: Guideline for assessing the suitability of a structure to support roosting habitat amended from Collins, J (2023)

Category	Description of Roosting Habitat	Number of additional presence / absence surveys required
None	No habitat features on site likely to be used by roosting bats at any time of year (complete absence of potential roosting features).	None
Negligible Suitability	Suitable cavities may exist, but these are less than ideal. Uncertainty remains as bats can use these features on occasion.	None
Low Suitability	A structure with one or more potential roost sites that could be used by individual bats opportunistically. The feature and surrounding habitat do not provide enough shelter, conditions* space for larger roost types such as a maternity or hibernation roost.	One survey between May and August

Category	Description of Roosting Habitat	Number of additional presence / absence surveys required
Moderate Suitability	A structure considered to have one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions* and surrounding habitat but are unlikely to support a roost of high conservation status (With regard to roost type only – assessments are made irrespective of species conservation status, which is established after presence is confirmed).	Two surveys between May and September (with at least one survey undertaken between May and August). Surveys should be spaced at least 3 weeks apart.
High Suitability	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions* and surrounding habitat.	Three surveys between May and September (with at least two surveys undertaken between May and August). Surveys should be spaced at least 3 weeks apart.
Confirmed	This category is where positive evidence of bats has been recorded. For example, bats are found; bat droppings may be present at a suitable location for roosting bats; existing bat records may be associated with the structure.	

* In this context conditions refers to the level of disturbance, light, height above ground, temperature, and humidity etc

Table 11: Guideline for assessing the suitability of a tree to support roosting habitat amended from Collins, J (2023)

INITIAL STAGE (Site scoping/PEA/PRA)		
Category	Description	Survey effort to establish the presence/absence of bats
NONE	Either no PRFS in the tree or unlikely to be any	None
FAR	Further assessment required to establish if PRFs are present in the tree	Ground Level Tree Assessment (GLTA) to further assess suitability
PRF	A tree with at least one PRF present	Ground Level Tree Assessment (GLTA) to further assess suitability
DETAILED STAGE (PEA/PRA/GLTA)		
PRF - I	PRF only suitable for individual bats or small numbers of bats due to size or lack of suitable surrounding habitats	None – precautionary method of works for removal and provision of roosting compensation

INITIAL STAGE (Site scoping/PEA/PRA)		
Category	Description	Survey effort to establish the presence/absence of bats
PRF - M	PRF suitable for multiple bats and may therefore be used by a maternity colony	Three Climbing inspection surveys for features to be undertaken May to September with at least 2 May to August. Surveys should be 3 weeks apart. If climbing and inspection not possible, 3 dusk emergence surveys with NVAs (Night Vision Aids) to be undertaken May to September with at least 2 May to August. Surveys should be 3 weeks apart. Should a maternity colony be confirmed less invasive methods, such as dusk emergence survey with NVAs should employed.
Known roost	Known roost present through local records, evidence, sightings, etc	Three Climbing inspection surveys for features to be undertaken May to September with at least 2 May to August. Surveys should be 3 weeks apart. If climbing and inspection not possible, 3 dusk emergence surveys with NVAs (Night Vision Aids) to be undertaken May to September with at least 2 May to August. Surveys should be 3 weeks apart. Should a maternity colony be confirmed less invasive methods, such as dusk emergence survey with NVAs should employed.

Table 12: Potential suitability of foraging and commuting habitat within an application boundary. Features should be assessed following this guide and professional judgement. Adapted from Collins, J (2023)

Category	Description of commuting and foraging habitat	Survey effort to establish the value of commuting and foraging habitat**
Negligible Suitability	Negligible habitat features on site likely to be used by commuting or foraging bats.	None

Category	Description of commuting and foraging habitat	Survey effort to establish the value of commuting and foraging habitat**
Low Suitability	Habitat which could be used by low numbers of commuting bats such as an isolated gappy hedgerow, or an unvegetated stream unconnected to suitable habitat in the wider environment. Suitable, yet isolated habitat that could be used by foraging bats such as individual trees, or a patch of scrub.	Nighttime bat walk (NBW) survey: One survey visit per active season (Spring – April/May, Summer (June/July/August) – autumn – September/October). AND Static automated surveys: Data to be collected over a five-night period, per season. (Spring – April/May, Summer (June/July/August) – autumn – September/October).
Moderate Suitability	Continuous habitat connected to the wider landscape that could be used by commuting bats, notably tree lines, hedgerows or linked back gardens. Habitat that is connected to the wider landscape which could be used by bats for foraging such as trees, open water, scrub or grassland.	Nighttime bat walk (NBW) survey: One survey visit per active season (Spring – April/May, Summer (June/July/August) – autumn – September/October). AND Static automated surveys: Data to be collected over a five-night period, per month (April to October)
High Suitability	Continuous, High-quality habitat that is well connected to the wider landscape which is considered to be highly conducive to commuting bats including river valleys, stream, hedgerows, 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 broadleaved woodland, tree lined watercourses, and grazed parkland. Site is close to and connected to known roosts.	Nighttime bat walk (NBW) survey: One survey visit per active season (Spring – April/May, Summer (June/July/August) – autumn – September/October). AND Static automated surveys: Data to be collected over a five-night period, per month (April to October)

** This is only a guide for survey effort required, the complexity of the site and the proposed disturbance / loss of features will determine the extent of works required on a site by site basis

Badgers (*Meles meles*)

Badgers are protected under the Protection of Badgers Act 1992. It is illegal to wilfully kill, injure, disturb or take any badger, or attempt to do so and it is an offence to intentionally or recklessly damage, destroy, or obstruct access to any part of a badger sett.

Site assessments are undertaken in accordance with:

- Harris S, Cresswell P and Jefferies D (1989). Surveying Badgers.

During the PEA, the site and the 30-metre zone of Influence considered for this species are searched for evidence of badger activity. The surveyor will identify evidence of activity, or habitat suitability for this

protected species. Even if no evidence of badger activity is found, if local conditions suggest that the habitat may be suitable for badger, further surveys will be recommended.

Amphibians

The great crested newt and natterjack toad are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981. The legislation protects these amphibians and their place of shelter or protection which may extend 500m from the breeding pond.

Great Crested Newt (*Triturus cristatus*)

The great crested newt, is fully protected under the Conservation of Habitat Regulations 2017 (as amended), making it an offence to intentionally or recklessly kill, injure, disturb or take great crested newts, intentionally or recklessly damage destroy or obstruct access to any place used by the animal for shelter or protection.

The legislation protects these amphibians and their place of shelter or protection which may extend 500m from the breeding pond. Sites should be considered suitable to support great crested newts if distribution and historical records suggest newts may be present, there is a pond within 500m of the development or the development site includes suitable terrestrial habitat refuges.

Great crested newt site assessments are undertaken in accordance with:

- English Nature. (2001) Great Crested Newt Mitigation Guidelines. English Nature, Peterborough. and
- Langton T, Beckett C and Foster J (2001) Great Crested Newt Conservation Handbook. Froglife, Halesworth.

Prior to a site visit, a desk study pond search is undertaken. When searching for ponds, Brindle & Green apply a total of 4 sources to establish their location. The following online sources are used:

- OS MAPPING VIA EMAPSITE
- GOOGLE EARTH PRO,
- GOOGLE MAPS and
- MAGIC MAPS

Each identified pond (Access permitting) is subjected to a Habitat Suitability Index (HSI) assessment providing a score for each pond. This survey should be undertaken during the summer period to be fully accurate, however assumptions can be made out of season to guide survey recommendations.

Reptiles

Two species of reptile, the sand lizard and smooth snake, and their habitats are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981. All other native British reptiles are protected against intentional killing and injury.

British reptiles are found in exposed, undisturbed areas, such as areas without cultivation with differing areas of grassland sward length. Suitable areas include abandoned sand quarries, fallow farmland land, heathland, post-industrial land, railway corridors etc. If these types of suitable features are found then further reptile surveys are recommended.

- Edgar P, Foster J and Baker J (2010) Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth.
- Gent T and Gibson S (2003) Herpetofauna Workers Manual. JNCC, Peterborough.

Invasive non-native weeds

Plant species such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*) are examples of invasive non-native weeds classified under Part II of Schedule 9 of the Wildlife and Countryside act 1981. Any person who causes these species to grow or spread in the wild by dumping or other means is guilty of an offence. The plant and the soil these species are found growing in are classified as waste material and should be treated as such.

A simple walk over survey of the site to determine if these species are present was carried out during the PEA. A full list of Schedule 9 species can be found at Plantlife.org

Ecological Enhancement

In March 2023 the Department for Communities and Local Government published the National Planning Policy Framework. This sets out planning policies on protection of biodiversity through the planning system. The document states - opportunities to incorporate biodiversity in and around developments should be encouraged.

For new buildings guidance such as in the following will be used:

- Williams, C. (2010) Biodiversity for Low and Zero Carbon Buildings, A Technical Guide for New Build. Riba Publishing.

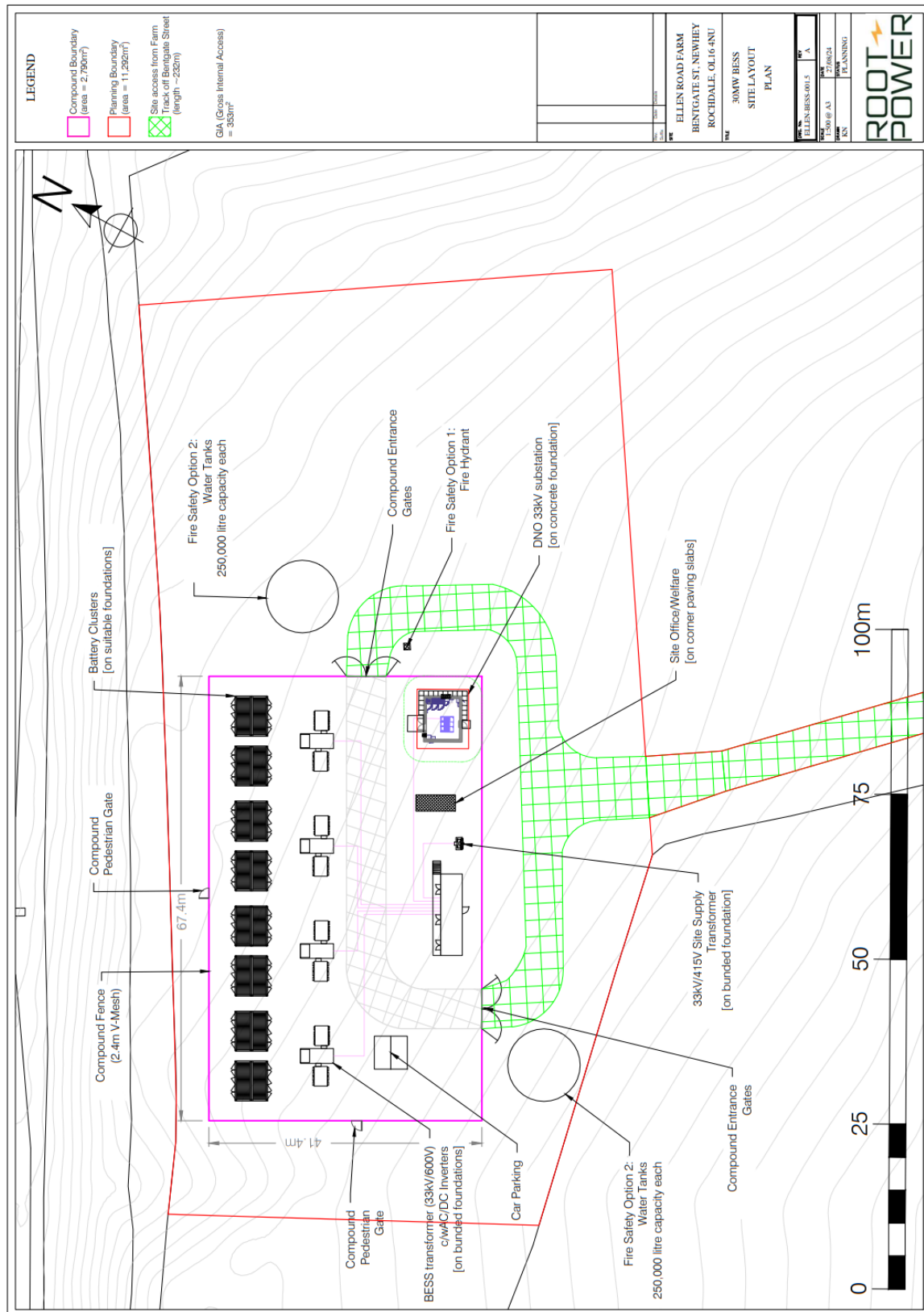
Designated Sites

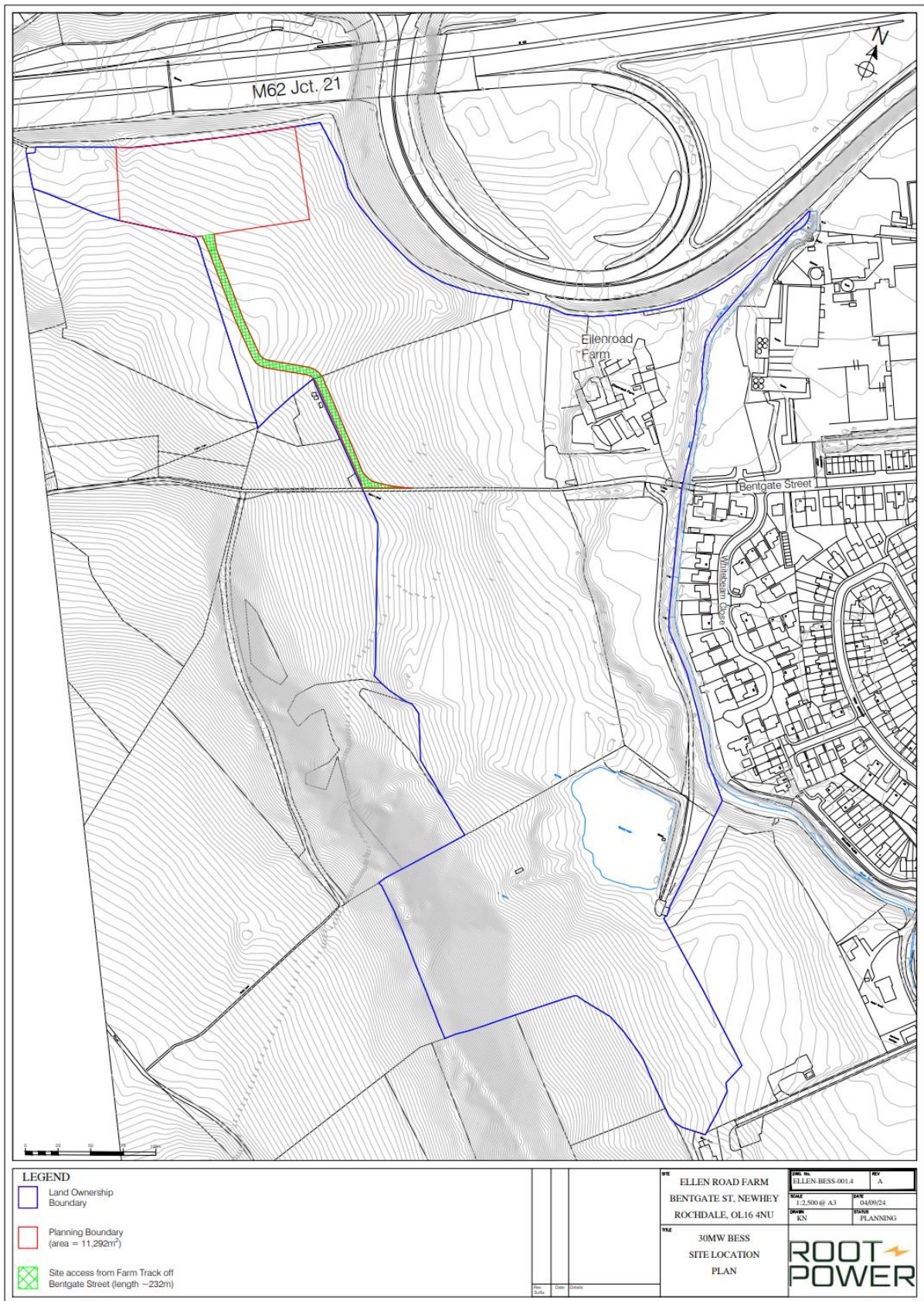
Designated areas are Sites of Special Scientific Interest (SSSI) while others have been designated as having European protection status. Local authorities can also designate areas for nature conservation and in doing so may impose local authority byelaws to support local nature conservation objectives.

European designated status includes Special Protection Areas (SPAs) that preserve areas for birds and Special Areas of Conservation (SACs) which provides protection for habitats and the species which these habitats support.

Information of Designated Protected Areas is received through Ecological Data Searches and Magic Map searches.

Appendix 6 – Proposed Plans

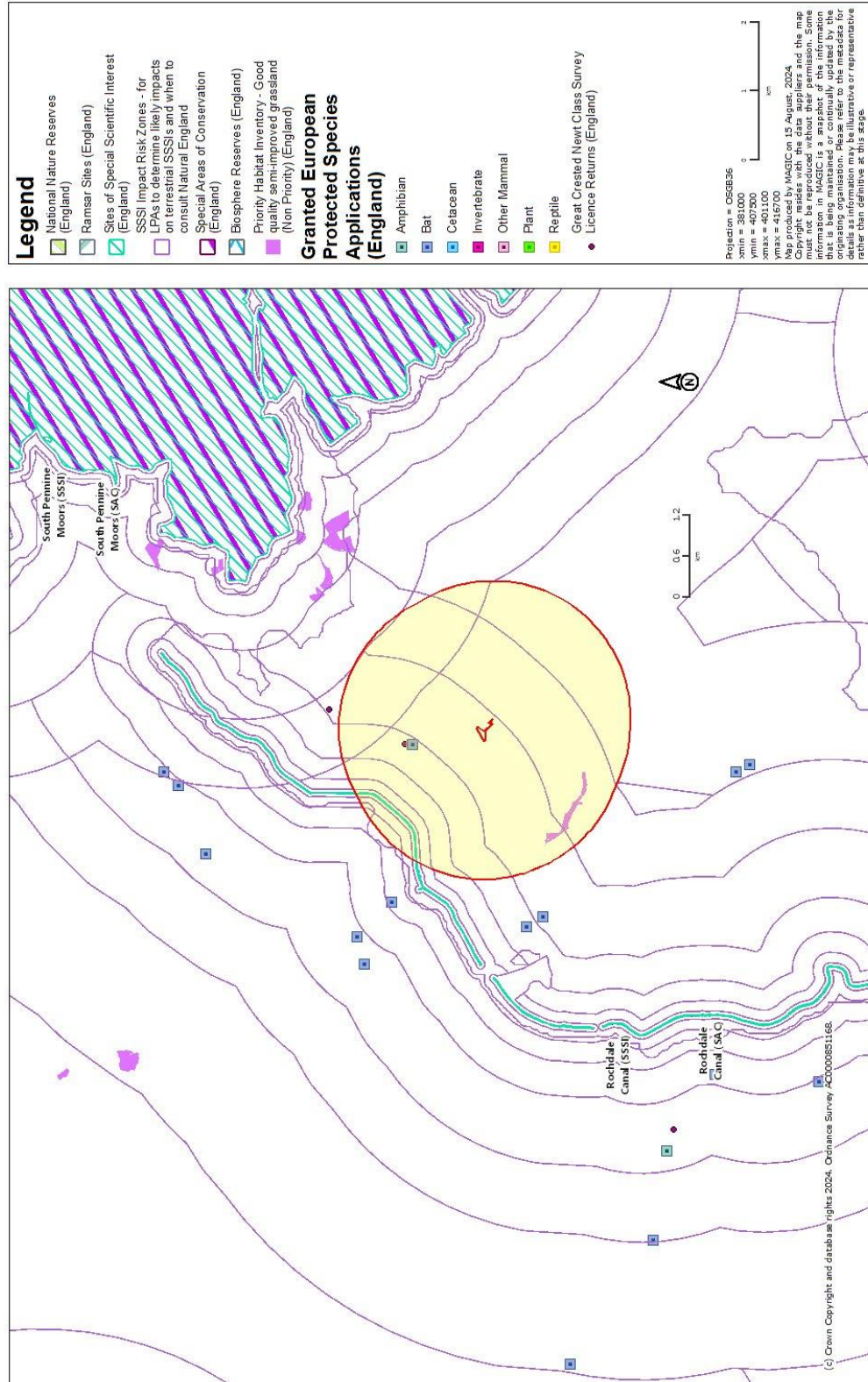




Appendix 7 – MAGIC data

MAGiC

Ellen Road Farm 2km



15/08/2024, 13:19

about:blank

Site Check Report Report generated on Thu Aug 15 2024
 You selected the location: Centroid Grid Ref: SD92601145
 The following features have been found in your search area:

Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)

Main Habitats	Good quality semi improved grassland
Habitat Codes	GQSIG
Habitat Feature Descriptions	Null
Habitat Feature Codes	Null
Other Habitat Classification	Null
Additional Habitats Present	Null
Primary Data Sources	English Nature Lowland Grassland Inventory 1994
Area In Hectares	6.39
Publication Version	Dec_2023
Unique ID	PHID39121583_041030267

Main Habitats	Good quality semi improved grassland
Habitat Codes	GQSIG
Habitat Feature Descriptions	Null
Habitat Feature Codes	Null
Other Habitat Classification	Null
Additional Habitats Present	Null
Primary Data Sources	English Nature Lowland Grassland Inventory 1994
Area In Hectares	1.88
Publication Version	Dec_2023
Unique ID	PHID39187366_040999848

Granted European Protected Species Applications (England)

Case reference of granted application	2015-7848-EPS-MIT
Species group to which licence relates	Amphibian
Species on the licence	Great crested newt
Site county of licence	Greater Manchester
Licence Start Date	14/04/2015
Licence End Date	31/07/2017
Does licence impact on a breeding site	N
Does licence allow damage of breeding site	N
Does licence allow damage of a resting place	Y
Does licence allow destruction of breeding site	N
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown

Case reference of granted application	2015-7854-EPS-MIT
Species group to which licence relates	Bat
Species on the licence	BLE,C-PIP
Site county of licence	Greater Manchester
Licence Start Date	20/03/2015
Licence End Date	31/05/2021
Does licence impact on a breeding site	N
Does licence allow damage of breeding site	N
Does licence allow damage of a resting place	N
Does licence allow destruction of breeding site	N
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown

Great Crested Newt Class Survey Licence Returns (England)

GCN Present	Y
Survey Date	05/05/2016
OS Grid Ref	SD924125
GCN Present	Y
Survey Date	13/04/2016
OS Grid Ref	SD924125
GCN Present	Y
Survey Date	23/05/2016
OS Grid Ref	SD924125
GCN Present	Y
Survey Date	04/04/2015
OS Grid Ref	SD924126

GCN Present	Y
Survey Date	01/04/2014
OS Grid Ref	SD924125
GCN Present	Y
Survey Date	12/04/2016
OS Grid Ref	SD924125

Sites of Special Scientific Interest (England)

Name	Rochdale Canal SSSI
Reference	1007365
Natural England Contact	C2L Innovation & Support Team, (Cheshire and Lancashire), Natural England
Natural England Phone Number	0845 600 3078
Hectares	26.37
Citation	2000430
Site Details Hyperlink	http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s2000430
Site Feature Condition Hyperlink	https://designatedsites.naturalengland.org.uk/SiteFeatureCondition.aspx?SiteCode=s2000430&SiteName=Rochdale Canal SSSI

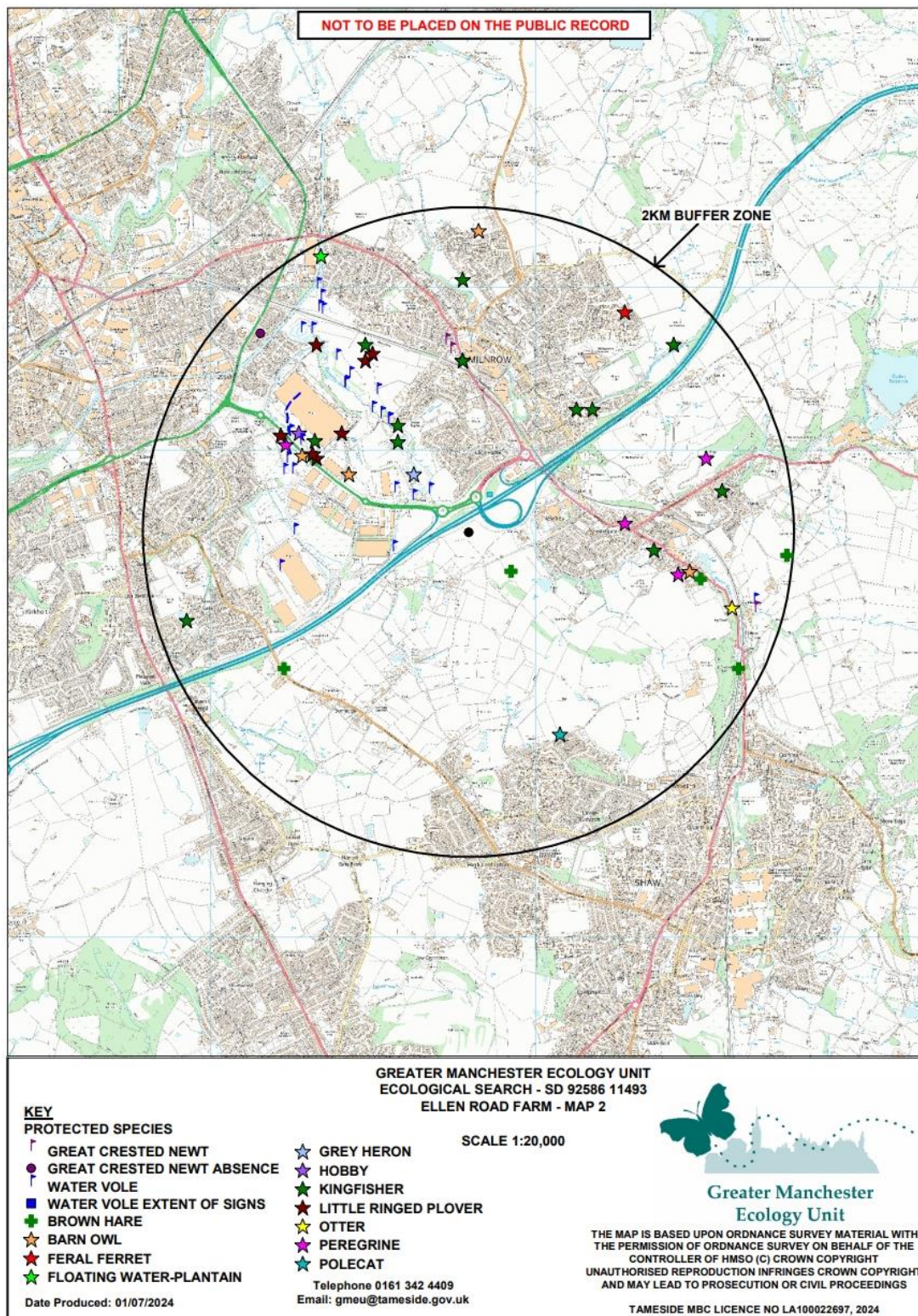
SSSI Impact Risk Zones - for LPAs to determine likely impacts on terrestrial SSSIs and when to consult Natural England

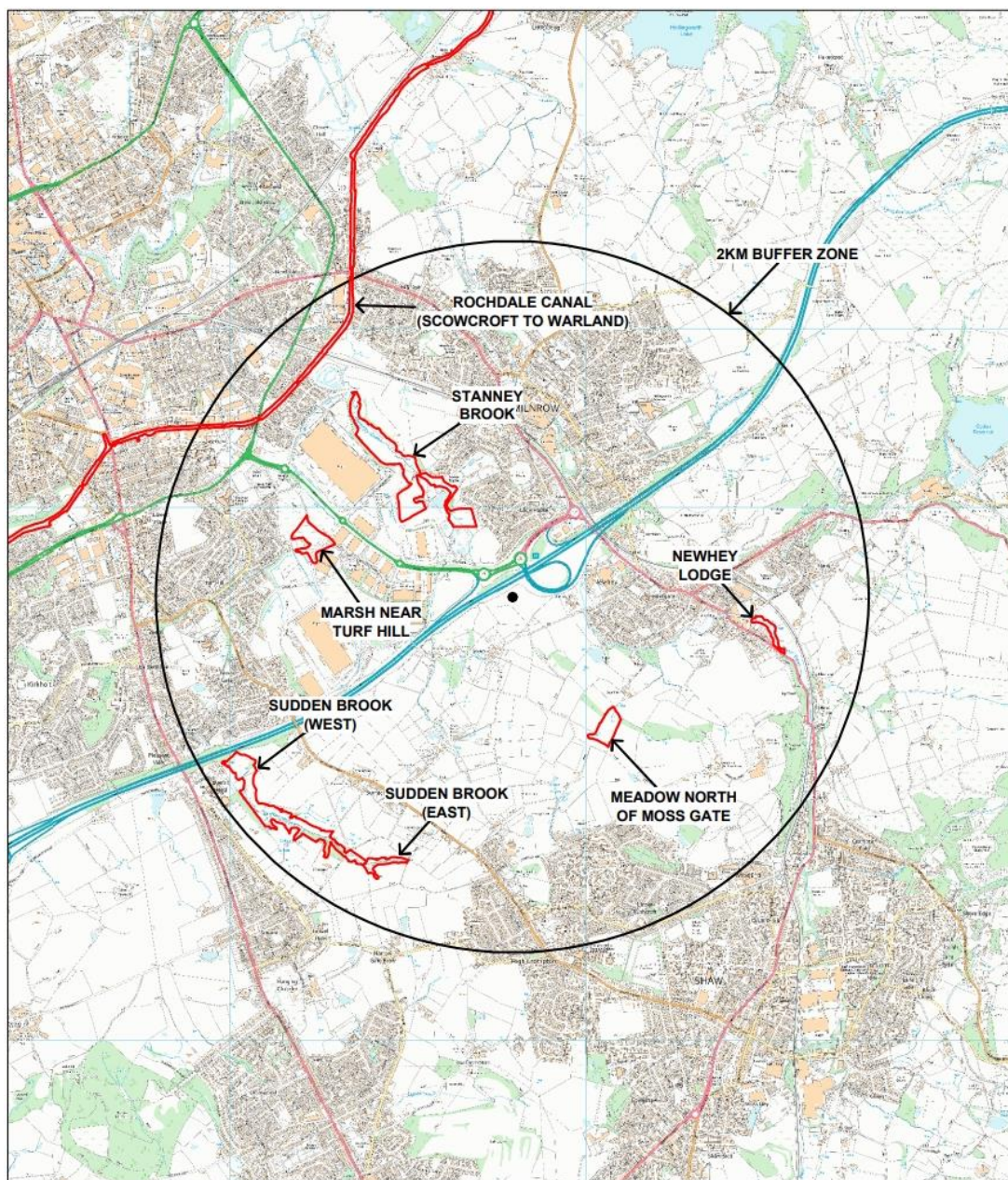
GUIDANCE - How to use the Impact Risk Zones HYPERLINK	/Metadata_for_magic/SSSI IRZ User Guidance MAGIC.pdf (IRZ polygon centre)
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Special Areas of Conservation (England)	
Name	ROCHDALE CANAL
Reference	UK0030266
Hectares	26.11
Hyperlink	https://sac.jncc.gov.uk/site/UK0030266

Appendix 8 – Ecological Data Search Information





KEY

SITE OF BIOLOGICAL IMPORTANCE

SBI BOUNDARY

GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH - SD 92586 11493
ELLEN ROAD FARM - MAP 1

SCALE 1:20,000

THE MAP IS BASED UPON ORDNANCE SURVEY MATERIAL WITH
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Date Produced: 01/07/2024

Appendix 9 – Habitat Suitability

Table 13 Habitat Suitability Index assessment for great crested newts

Key:

W = Waterbody S1 = Location S2 = Pond Area S3 = Pond Permanence S4 = Water Quality S5 = Shade S6 = Water Fowl
S7 = Fish S8 = Pond Numbers S9 = Terrestrial Habitat Quality S10 = Macrophyte Coverage T = Total HSI Score

W	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	T
P1	0.5	0.75	0.9	0.33	1	0.67	0.67	1	0.67	0.5	0.66

Total HSI Score = $(S1 \times S2 \times S3 \times S4 \times S5 \times S6 \times S7 \times S8 \times S9 \times S10)^{1/10}$

Appendix 10 – eDNA results

Folio No: 943-2024
Purchase Order: BG24.242
Contact: Brindle & Green
Issue Date: 14.05.2024

GCN Report

Technical Report



SureScreen Scientifics

Folio No: 943-2024
Purchase Order: BG24.242
Contact: Brindle & Green
Issue Date: 14.05.2024



GCN eDNA Analysis

Summary

When great crested newts (GCN), *Triturus cristatus*, inhabit a pond, they continuously release small amounts of their DNA into the environment. By collecting and analyzing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

Results

Lab ID	Site Name	OS Reference	Degradation Check	Inhibition Check	Result	Positive Replicates
3782	Ellen Road, P1	SD9234511249	Pass	Pass	Negative	0/12

Matters affecting result: none

Reported by: Daisy Chambers

Approved by: Lauryn Jewkes

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Methodology

The samples detailed above have been analyzed for the presence of GCN eDNA following the protocol stated in DEFRA WC1067 'Analytical and methodological development for improved surveillance of the Great Crested Newt, Appendix 5.' (Biggs et al. 2014). Each of the 6 sub-sample tubes are first centrifuged and pooled together into a single sample tube which then undergoes DNA extraction. The extracted sample is then analyzed using real-time PCR (qPCR), which uses species-specific molecular markers to amplify GCN DNA within a sample. These markers are unique to GCN DNA, meaning that there should be no detection of closely related species.

If GCN DNA is present, the DNA is amplified up to a detectable level, resulting in positive species detection. If GCN DNA is not present then amplification does not occur, and a negative result is recorded. Analysis of eDNA requires attention to detail to prevent the risk of contamination. True positive controls, negative controls, and spiked synthetic DNA are included in every analysis and these have to be correct before any result is declared and reported. Stages of the DNA analysis are also conducted in different buildings at our premises for added analytical security.

SureScreen Scientifics Ltd is ISO9001 accredited and participates in Natural England's proficiency testing scheme for GCN eDNA testing.

Interpretation of Results

Sample Integrity Check:	When samples are received in the laboratory, they are inspected for any tube leakage, suitability of sample (not too much mud or weed etc.) and absence of any factors that could potentially lead to inconclusive results. Any samples which fail this test are rejected and eliminated before analysis.
Degradation Check:	Pass/Fail. Analysis of the spiked DNA marker to see if there has been degradation of the kit or sample between the date it was made to the date of analysis. Degradation of the spiked DNA marker may lead indicate a risk of false negative results.
Inhibition Check:	Pass/Fail. The presence of inhibitors within a sample is assessed using a DNA marker. If inhibition is detected, samples are purified and re-analyzed. Inhibitors cannot always be removed, if the inhibition check fails, the sample should be re-collected.
Result:	Presence of GCN eDNA (Positive/Negative/Inconclusive) Positive: GCN DNA was identified within the sample, indicative of GCN presence within the sampling location at the time the sample was taken or within the recent past at the sampling location. Positive Replicates: Number of positive qPCR replicates out of a series of 12. If one or more of these are found to be positive the pond is declared positive for GCN presence. It may be assumed that small fractions of positive analyses suggest low level presence, but this cannot currently be used for population studies. In accordance with the WC1067 Natural England protocol, even a score of 1/12 is declared positive. 0/12 indicates negative GCN presence. Negative: GCN eDNA was not detected or is below the threshold detection level and the test result should be considered as evidence of GCN absence, however, does not exclude the potential for GCN presence below the limit of detection. Inconclusive: Controls indicate inhibition or degradation of the sample, resulting in the inability to provide conclusive evidence for GCN presence or absence.

