

DODDINGTON LANE, STUBTON, LINCOLNSHIRE

PRELIMINARY ECOLOGICAL APRAISAL REPORT

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1. BACKGROUND INFORMATION

1.1 This Preliminary Ecological Appraisal (PEA) has been complete on behalf of GraceMachin for the Site; Land off Doddington Lane, Stubton, Lincolnshire. It has been produced to inform the proposed re-development of the northern section of the Site for residential purposes.

Site Details

1.2 The Site comprises modified grassland, with hedgerow boundaries located on the southern outskirts of the village of Stubton in the South Kesteven District of south-western Lincolnshire. Adjacent habitats comprise rural arable fields with associated hedgerows, and blocks of woodland and the wider village to the north forming a rural setting.



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Purpose of This Report

1.3 This PEA provides baseline data and recommendations for mitigation, compensation and enhancements as appropriate as well as recommendations for any further surveys if necessary. It is produced with due consideration for best practice (CIEEM, 2017) and the British Standards Institution (BSI, 2013).



2. LEGISLATION

- 2.1 Legislation relevant to this assessment are as follows:
 - The Conservation of Habitats and Species Regulations 2019 (as amended);
 - The Wildlife and Countryside Act 1981 (as amended);
 - The Countryside and Rights of Way (CRoW) Act 2000;
 - The Environment Act 2021;
 - The Biodiversity Gain Requirements Regulations 2024;
 - The Wild Mammals Act (1996);
 - The Protection of Badgers Act 1992
 - Hedgerow Regulations 1997.
 - Natural Environment and Rural Communities (NERC) Act 2006; and,
- 2.2 The National Planning Policy Framework (NPPF, 2024) informs Local Planning Authorities planning policies and when reviewing planning applications affecting features of value to nature conservation.
- 2.3 The NPPF is available at https://www.gov.uk/government/publications/national-planning-policy-framework--2.
- 2.4 Local Policy relevant to the Sites authority area has also been reviewed as necessary.



3. METHODOLOGY

Zone of Influence

3.1 The defined Zone of Influence (ZOI) for any proposal is related to the significance of sites and species which may be present in the surrounding landscape. For this small scale scheme the following ZOI have been established for designations.

Table 3-1: Designated Sites and Zone of Influence

TYPE	DESIGNATION	ZOI FOR THIS SCHEME	
International Sites (Statutory)	Special Protection Area (SPA) Special Area of Conservation (SAC), and Ramsar sites	2km	
National Sites (Statutory)	Sites of Special Scientific Interest (SSSI) and Local/ National Nature Reserves (LNR/ NNR);	1km	
Off-Site Priority Habitats	Habitats listed on the priority habitat inventory/ Under the NERC Act (2006)	Within 50m	

Surveys

3.2 Survey work completed as part of this assessment is detailed in the table and under the relevant subheadings below.

Table 3-2: Survey Conditions

SURVEY TYPE	SURVEYOR	DATE	WEATHER
Habitat survey and protected species scoping including Preliminary Bat Roost Assessment (PBRA)	les scoping minary Bat AR BSc (Hons) ACIEEM 3 rd April 2025		14°C, sunny, dry and calm.
GCN eDNA Survey	AM MSc BA MCIEEM	11 th April 2025	15°C, sunny, calm,

Habitat Survey

- 3.3 Survey was undertaken by AR BSc (hons) ACIEEM. AR has over 10 years' experience in habitat and protected species scoping assessments and is appropriately qualified for the surveys based on the CIEEM competencies for carrying out such surveys (CIEEM, 2017). AR is registered to use a level personal bat licence and great crested newt licence, all of which further demonstrates competence to lead this type of work.
- 3.4 The habitat survey was completed using UK Habitat Classification System V2.0 (UK HAB, 2023) with habitat mapping complete using the DEFRA Statutory Biodiversity Metric QGIS mapping tools.
- 3.5 Alongside the habitat survey, the surveyor scoped for protected/notable species. Specific consideration was given to the following species: amphibians, including GCN *Triturus cristatus*;



birds; bats; reptiles; badgers *Meles meles* and priority species, (e.g., hedgehog *Erinaceus* europaeus).

Preliminary Bat Roost Assessment (GLTA)

- 3.6 As part of the protected species scoping a specific daytime bat survey was complete by a licensed bat worker in accordance with best practice (Collins, 2023). This included a Ground Level Tree Assessment (GLTA) the trees on-Site and within close proximity of the Site boundary.
- 3.7 This assessment focused on ingress/egress opportunities for roosting bats in association with trees. Features such as knot holes, callus rolls, split limbs, rot holes and trunk cavities were recorded in association with specific trees. Trees were given a unique reference and the trees species, location, size and diameter at breast height were recorded.
- 3.8 Trees are graded later in this report as to their suitability to roosting in accordance with best practice referenced above. Where necessary further survey work has also be recommended later in this report to inform the proposal.
- 3.9 As a secondary objective, suitability of the Site for foraging/commuting bats was also assessed considering potential flight lines, wildlife corridors, artificial lighting inputs and potential pathways to impact bought about by the prospective scheme.
- 3.10 No buildings were present within the Site or within close proximity to the Site boundary.

Great Crested Newt eDNA Survey

3.11 A Licensed Surveyor (2015-7986-CLS-CLS) obtained water samples from the ponds within 250m using SureScreen Scientific Environmental DNA kits for Great Crested Newt (GCN). The samples were sent off for laboratory analysis to determine if GCN use these ponds and if further surveys / licensing was required.

Desk Study

- 3.12 As part of a desk-based assessment data sources listed below were searched to gather ecological data of relevance to the project, including the identification of ecologically sensitive habitats such as vegetation corridors, woodlands, watercourses, standing water and statutory designated Sites.
 - Ancient Woodland/Tree Inventory;
 - Multi-Agency Geographic Information for the Countryside (MAGIC Maps);
 - Ancient Woodland/Tree Inventory;
 - Ordnance Survey 1:25,000 mapping;
 - Aerial imagery (Google Earth Pro imagery dated 1999 2024); and,
 - The Natural England Open Data Geoportal (<u>Natural England Open Data Geoportal</u> (<u>arcgis.com</u>)) were also accessed in respect of protected species.

Limitations



- 3.13 Despite efforts made during the field survey to provide a comprehensive account of the Site, it is important to acknowledge that no investigation can guarantee complete characterisation and accurate prediction of the natural environment. Moreover, it is crucial to recognise that habitats are dynamic entities prone to changes, including the potential colonisation of species subsequent to the surveys complete as part of this report.
- 3.14 In line with standard guidance, the results and recommendations within this report are valid for up to two years from the date of survey, assuming there are no significant changes to the survey Site or its immediate surroundings. Updated survey work may be required to support any future planning applications outside of this time period.
- 3.15 Formal ecological data request to the local ecological record centre was not complete in support of this assessment owing to the extremely small scale of the proposal (impacts to one building only).
- 3.16 The assessment was undertaken within the optimal botanical growing season, which is considered to be from April until September, and therefore there are no limitations to the survey timings.



4. RESULTS

Designated Sites

- 4.1 There are no international sites within 2km of the Site and no national level statutory sites within 1km of the Site. The Site does not fall into any Impact Risk Zones for SSSI's.
- 4.2 No priority habitats are located within 50m of the Site boundary.
- 4.3 Therefore any future development proposals will not impact any international or nationally designated sites or and as such designated sites will not be discussed further.

Habitats

- 4.4 No irreplaceable habitats were identified on-Site.
- 4.5 Habitats are discussed under the table below.

Table 4-1: Baseline Habitats

HABITAT	DESCRIPTION
	The dominant habitat across the Site was modified grassland, which was split into four parcels:
Modified Grassland	G1 was located on the southern section of the Site and comprised of a shorter but tussocky sward in comparison to G2 and G3 of up to 25cm. The dominant grass was false oat <i>Arrhenatherum elatius</i> with abundant cocks foot a <i>Dactylis glomerata</i> , perennial rye <i>Lolium perenne</i> and fescue <i>Festuca sp.</i> Forbs included occasional dock <i>Rumex sp.</i> , and dandelion <i>Taraxacum agg.</i> , with rare common nettle <i>Urtica dioica</i> ,, hogweed and cow parsley. A maximum of 4 species per m² was identified by the surveyor.
	G2 and G3 were located within the central area and the northern section of the Site. These grasslands were both ridge and furrow, with the only different being the direction of the ridge and furrow. G2's ridge and furrow was directed east/west with G3's directed north/south. Both grasslands had similar species composition and swards with a 40cm tussocky sward, with no recent grazing or cutting evident. Species comprised dominant cock's foot and false oat grass with abundant perennial rye grass and occasional fescue as well as meadow fox tail. Forbs included abundant nettle, occasional dock, cow parsley and hogweed with rare dandelion and spear thistle. No more than 3-4 species per m² was identified by the surveyor.
	G4 was located along the eastern boundary of the Site and comprised of a shorter sward, up to 10cm, which as not tussocky and likely previously used as a grassland track. Dominant grassland species comprised perennial rye grass, meadow foxtail and fescue with abundant white clover, broadleaved plantain and creeping buttercup and rare dandelion. No more than 5 species per m² was identified by the surveyor.
Bramble Scrub (SCR1)	The eastern boundary adjacent to H2 has not been managed and comprised of dominant dense bramble <i>Rubus fruticous agg.</i> scrub, as well as areas of mixed scrub and blackthorn scrub.



HABITAT	DESCRIPTION
	Areas of other species of mixed scrub were also present along the hedgerow on the western side of the Site: SCR2 comprised blackthorn and bramble with a small amount of
Mixed Scrub (SCR2, SCR3, SCR5)	hawthorn. SCR3 comprised dog rose with elder, hawthorn and bramble. SCR 5 comprised of bramble, hawthorn and elder
Blackthorn Scrub (SCR4)	An area comprising of just blackthorn scrub was present within the central area of the Site adjacent to the western boundary.
Native Hedgerow (H1, H3, H5)	The Site was bounded by hedgerows, all of which were considered to be Priority Habitats as they all comprised over 80% native species. H1 was located on the southern boundary with a gap along the eastern edge for access. This hedgerow measured approximately 4m high and was 1.5m wide. It was comprised of dominant hawthorn with oak with no signs of intensive management, with the only management undertaken on the southern side of the hedgerow along the adjacent track. H3 was located on the northern boundary of the Site adjacent to a residential property. This hedgerow had been recently heavily cut back, with stems of hawthorn measuring 10-20cm wide, which were likely part of a mature hedgerow. The dominant species comprised hawthorn with ivy and elder measuring 1.5m wide and 1.5m high. H5 was located along the eastern Site boundary, forming the southern section of this hedgerow. This hedgerow comprised dominant hawthorn with privet, bramble, ivy, oak, field maple, dog rose and sycamore. The hedgerow measured 3-4m high and was 1.5-2m wide, but was not considered species rich due to no more than 4 species per 30m.
Native Hedgerow with trees (H4)	H4 was located along the eastern Site boundary, forming the northern section. This hedgerow comprised of dominant hawthorn with mature ash trees which were in good health.
Native hedgerow associated with ditch (H2)	H2 was located along the western boundary of the Site and where the hedgerow ended was not apparent. It formed one hedgerow with the adjacent field with a dry ditch running underneath. The hedgerow was approximately 1.8m high and over 2m wide, with dominant hawthorn as well as bramble ash and blackthorn, common privet and dog rose. It was intensively managed and was not considered species rich as it did not contain 6 species per 30m.



HABITAT	DESCRIPTION
Rural Trees	H2 on the western Site boundary comprised two mature ash trees within the hedgerow, which have been categorised as a separate habitat as these are the only trees within the hedgerow. T1 was approximately 30-40cm DBH and T2 was approximately 40-50cm DBH. An accurate measurement could not be undertaken due to the dense bramble scrub and hedgerow (over 1m). Both trees appeared in good health with no signs of ash dieback.
Tall forbs	An area of tall forbs was present within the north-western corner of the Site. This area comprised dominant common nettle with creeping thistle, cut-leaved cranesbill, common hogweed and cow parsley.

Protected/Notable Species

Herptiles (Amphibians and Reptile)

- 4.6 As GCN are widely understood to be unlikely to traverse beyond 250m from any breeding pond (Franklin 1993, Oldham and Nicholson 1986, Jehle 2000, Jehle and Arntzen, 2000), and the scheme is extremely small scale, the zone of influence for GCN is considered to be 250m for this Site.
- 4.7 The closest pond is located 34m north of the Site boundary within an adjacent properties garden. Another pond is located 186m north-east of the Site boundary within an area of woodland likely associated with Stubton Hall. Both Ponds were subject to eDNA survey and no evidence of GCN was identified in either pond. As no other ponds within the zone of influence GCN are presumed likely absent and will not be discussed further.
- 4.8 The Site provides opportunities for other common amphibians and reptiles, due to the grasslands tussocky sward and presence of hedgerows which provide both refuge and foraging opportunities. The potential presence of other amphibians and reptiles cannot be ruled out.

Badger

- 4.9 No evidence of badgers such as hairs, latrines, footprints or setts were recorded during the survey on-Site or within 30m of the boundary; access permitting.
- 4.10 The Site was considered to provide some opportunities for foraging badger due to its rural nature and connectivity to wider suitable habitats. Badgers periodically crossing the Site, or utilising the Site for foraging purposes was considered likely.

Roosting Bats

- 4.11 No buildings were present within the Site, none of the trees within the Site boundaries had any features which were considered to provide any suitability for roosting bats.
- 4.12 Roosting bats will not be impacted by any future development proposals and as such will not be discussed further.



Foraging and Commuting Bats

- 4.13 The Site provides some value for foraging bats due to the habitats present (grassland and hedgerows). The Site was considered unlikely to support a notable population of bats due to its overall small scale and limited floristic value, as well as the presence of other suitable foraging habitats within the wider landscape.
- 4.14 The Site may provide a commuting route between the two blocks of woodland to the south-east and north-west of the Site, with the boundary hedgerows forming suitable commuting habitats across the landscape and to the south of Stubton.

<u>Birds</u>

- 4.15 During the Site survey a range of common bird species was identified within the Site including robin *Erithacus rubecula*, chiffchaff *Phylloscopus collybita*, blackbird *Turdus merula*, pheasant *Phasinanus colchicus*, long-tailed tit *Aegithalos caudatus* and wood pigeon *Columba palumbus*.
- 4.16 The Site provides opportunities for common bird species due to its rural setting adjacent to the village of Stubton. The hedgerows and grassland provided both nesting and foraging opportunities for common bird species with the tussocky nature of the grassland also considered to provide opportunities for foraging barn owl *Tyto alba*.

Invasive Species

4.17 No invasive species were found on-Site and as such will not be discussed further in this report.

Brown hare

4.18 A brown hare was identified within the Site during the Site survey. The presence of tussocky grassland and hedgerows, as well as the surrounding arable landscaping provide optimal habitats for this species.

Other Species

4.19 Given the presence of grassland on-Site, the presence of hedgerows and tussocky grassland as well as the surrounding habitats which provide optimal foraging habitats for hedgehogs, the presence of this species on-Site cannot be ruled out.



5. EVALUATION

5.1 This section identifies the potential effects on ecological receptors prior to mitigation/recommendations for any further work being made.

Habitats

- 5.2 The hedgerows and hedgerows with trees are priority habitats, and should be protected and retained as part of any future development proposals.
- 5.3 The grassland, although not floristically rich is tussocky and provides opportunities for a range of species at the Site. Consideration should be given to retain at least a section of this grassland is recommended to be retained as part of any future development proposals.
- 5.4 Mitigation measures for the protection of any retained habitats has been provided in Section 6.

Species

Herptiles

5.5 Transient potential presence of common reptiles and other amphibians cannot be ruled out. The presence of a notable population of both common amphibians and reptiles is considered unlikely as the Site is relatively small scale and is dominated by a shorter sward grassland. Peripheral hedges/scrub are for the most part proposed for retention.

Badger

5.6 Badgers crossing the Site may become trapped or injured in open excavations. As such mitigation is provided in Section 6.

Foraging Bats

- 5.7 Should any of the hedgerows be entirely removed, then further bat activity surveys to determine the use of the Site by both foraging and commuting bats will be required. The Site is unlikely to provide opportunities for notable populations of bats due to its overall small scale, but may contain a commuting route of importance to local populations of bats.
- 5.8 Any future development proposals may include changes in lighting and therefore any increases in lighting may impact foraging and commuting bats. Mitigation has been provided in Section 6.

Birds

- 5.9 Should any of the hedgerows or trees be removed as part of any future development proposals, there is scope for nests to be lost or destroyed and nesting birds to be killed/injured during the Site clearance and tree felling works. Mitigation has been provided in Section 6.
- 5.10 Barn owl may utilise the Site for foraging. Further surveys for this species is considered disproportionate due to the overall small scale of the Site and opportunities for this species within the immediate vicinity of the Site.



Brown Hare

5.11 Brown hare are present on Site and may utilise the Site for their young, shelter as well as foraging. Brown hare may become trapped, injured or killed during Site clearance and construction works and therefore mitigation measures to protect this species will be required, as provided in Section 6.

Other Species

5.12 Other species utilising the Site for foraging, refuging and commuting purposes may become trapped or injured in open excavations such as hedgehog. Species may also be in disturbed during Site clearance works. As such mitigation is provided in Section 6.



6. RECOMMENDATIONS

Habitats

- 6.1 Once the development proposals are known, all retained habitats and other habitats outside of the Site boundary should be protected. The Pollution Prevention Guidelines as listed below should be consulted to advise on pollution control practice's and to ensure construction works are undertaken responsibly:
 - PPG1: General Guide to the Prevention of Pollution;
 - PPG2: Above Ground Oil Storage Tanks;
 - PPG3: Use and Design of Oil Separators in Surface Water Drainage Systems;
 - PPG6: Working at Construction and Demolition Sites; and,
 - PPG21: Pollution Incident Response Planning.
- 6.2 Any chemicals or environmentally hazardous material must be kept in dedicated stores, storage tanks will have appropriate bunding and the possibility of fuel spillages will be minimised through good site management.
- 6.3 Any habitats proposed for retention on-Site, and adjacent to the Site should be protected during works in accordance with BS 5837: 2012 with the root protection zone ideally Heras fenced off, to avoid accidental encroachment.
- Any loss of hedgerows or trees should be replaced on a 2:1 ratio in favour of replanting to ensure no loss of these habitats within the Site and a measurable gain occurs.
- 6.5 Whilst the other on-Site habitats are of little floristic value and their losses are not considered a major constraint, however the grassland provides opportunities for a range of species. To secure gains for biodiversity, provision of the following additional habitat types (alongside those listed above) should be considered as part of development:
 - Native scattered tree planting;
 - Native wildflower meadow;
 - Native hedgerow/scrub planting.
- Additionally, habitat features to provide refuge opportunities for fauna should be included within the enhancement strategy for the Site as follows:
 - Refugia (log and brash piles) should be replaced in locations where the development will not have any impacts;
 - Bat boxes should be integrated into new buildings and installed onto mature retained trees
 3-5m high, ideally south facing, away from any artificial lighting, windows or doors to provide more opportunities for these species;
 - Bird boxes should be integrated into new buildings and installed on mature trees on-Site at least 3-5m high; and,
 - Consideration for hedgehog highways and hedgehog boxes as enhancement for this species.



6.7 To secure the proposals set out above and in this section a Habitat Enhancement Plan is recommended. This should include measures to protect retained habitats, steps to create compensatory/enhancement features and long-term prescriptions association with management, remediation and monitoring of habitats on-Site.

Protected/Notable Fauna.

Herptiles

- 6.8 Precautionary working measures should be adopted during construction to limit risks to common herptiles. This should include:
 - A Suitably Experienced Ecologist (SQE) should provide a toolbox talk to Site operatives on reptile and common amphibian/reptile ecology, behaviour and legislation as well as good working practices to adopt during construction;
 - Should the habitats be allowed to grow to a longer sward, vegetation clearance of habitats listed above should only occur in temperatures above 9°C;
 - The vegetation should be reduced to 150mm using hand tools working from the north to the south, towards the off-Site dense vegetation proposed for retention, under the supervision of a SQE During this process, the SQE may stop work and finger-tip search/destructive search features as the work progresses. Once this initial step is complete the habitat should then be left overnight (allowing fauna to freely disperse as habitat becomes less favourable for refuge);
 - The following day removal can commence at the contractors discretion;
 - Any stored materials/plant should be checked by hand before removal from Site by either Site operatives or an SQE if present;
 - Avoidance of creating rubble piles on-site during construction. If this happens an SQE should be contacted to assist with removal as per prescriptions detailed above;
 - Vegetation cleared should not be piled on-Site. It should instead be moved immediately from Site;
 - Any excavations made must be backfilled on the same day, covered or have an escape plank installed at the edge to allow herptiles or other small fauna to naturally disperse; and,
 - Retained suitable habitat should ideally be Heras fenced during construction to avoid accidental encroachment.
- 6.9 Other mitigation outlined below under the badger and brown hare heading is also considered beneficial for these species.

Badger and Brown Hare

- 6.10 In order to protect animals including badger during construction phase, good practice methods should be implemented throughout works. Those prescriptions should include:
 - Safe storage of chemicals;
 - Covering open excavations at the end of each working day or providing an escape route for them to utilise to avoid them becoming trapped;
 - Avoidance of creating rubble/earth/waste piles, which badger and other small fauna could utilise for refuge or sett excavation;



- Capping open pipe work and sensible storage of building materials within a designated compound/ storage area; and,
- Avoidance of nightwork.
- 6.11 If development does not commence within the next 12 months, a re-survey for badger is recommended for the Site.

Foraging Bats

- 6.12 If any hedgerows are proposed to be entirely removed as part of the proposals, further bat activity surveys of the Site should be undertaken. These surveys should be undertaken by a competent and experienced Ecologist and follow the recommended survey effort as outlined within best practice guidelines. However, it is considered extremely unlikely this will be necessary as part of redevelopment of the Site given their location at the peripheries.
- 6.13 Artificial lighting should be avoided in association with the scheme where possible. Or a lighting strategy sympathetic to nocturnal fauna should be implemented, ensuring no artificial light spill occurs towards peripheral habitats (trees and line of trees or any newly installed bat features as part of the scheme). Any new lighting associated with the development should follow best practice guidelines outlined in Bats and Artificial Lighting at Night (ILP, 2023).

Birds

- 6.14 As all species receive legal protection during nesting, it is advised to conduct any vegetation removal (including tree felling) outside of the breeding bird season of March to October (inclusive). Work outside of this period (between November and February inclusive) should still be preceded by a nesting bird check carried out by contractors, as some species can nest all year round.
- 6.15 If it is necessary to conduct vegetation pruning/ removal within the nesting bird season, any works to suitable vegetation should be preceded by a nesting bird check conducted by a Suitably Qualified Ecologist (SQE). Where nests are encountered, a suitable standoff zone will be implemented, and all works in the area will cease until the chicks have fledged.#
- 6.16 Mitigation such as the retention of areas of tussocky grassland or creation of new species such grassland should be considered for barn owl. Additionally a barn owl box could be installed at the Site, should an area of open public space be available.

Other Species

- 6.17 If during construction a hedgehog is found it should be left in situ, and all works should cease within the vicinity of the area with either a professional ecologist or the Hedgehog Preservation Society contacted for further advice. In most cases the hedgehog can be moved by hand to a nearby off-Site place of safety. However, dependant on the time of year, i.e. if temperatures are low (below 10°C) and the hedgehog was found within the hedgehog hibernation season (from November to March) then it may be necessary to take the hedgehog to a wildlife sanctuary. Moving a pregnant hedgehog or hedgehog with young can also result in mortality; so moving hedgehogs should be considered the last resort and informed by a professional ecologist or Hedgehog Preservation Society.
- 6.18 Please contact the British Hedgehog Preservation Society (Tel: 01584 890801) for advice.



6.19	Measures, as outlined above for badger, brown har hedgehogs which is considered highly advantageous.	e and	herptiles,	will	reduce	the	risk	to



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- The Hedgerow Regulations 1997 (England) Found at: https://www.legislation.gov.uk/uksi/1997/1160/contents/made.
- The Management of Hedgerows Regulations 2024 : <u>The Management of Hedgerows</u> (England) Regulations 2024 (legislation.gov.uk)



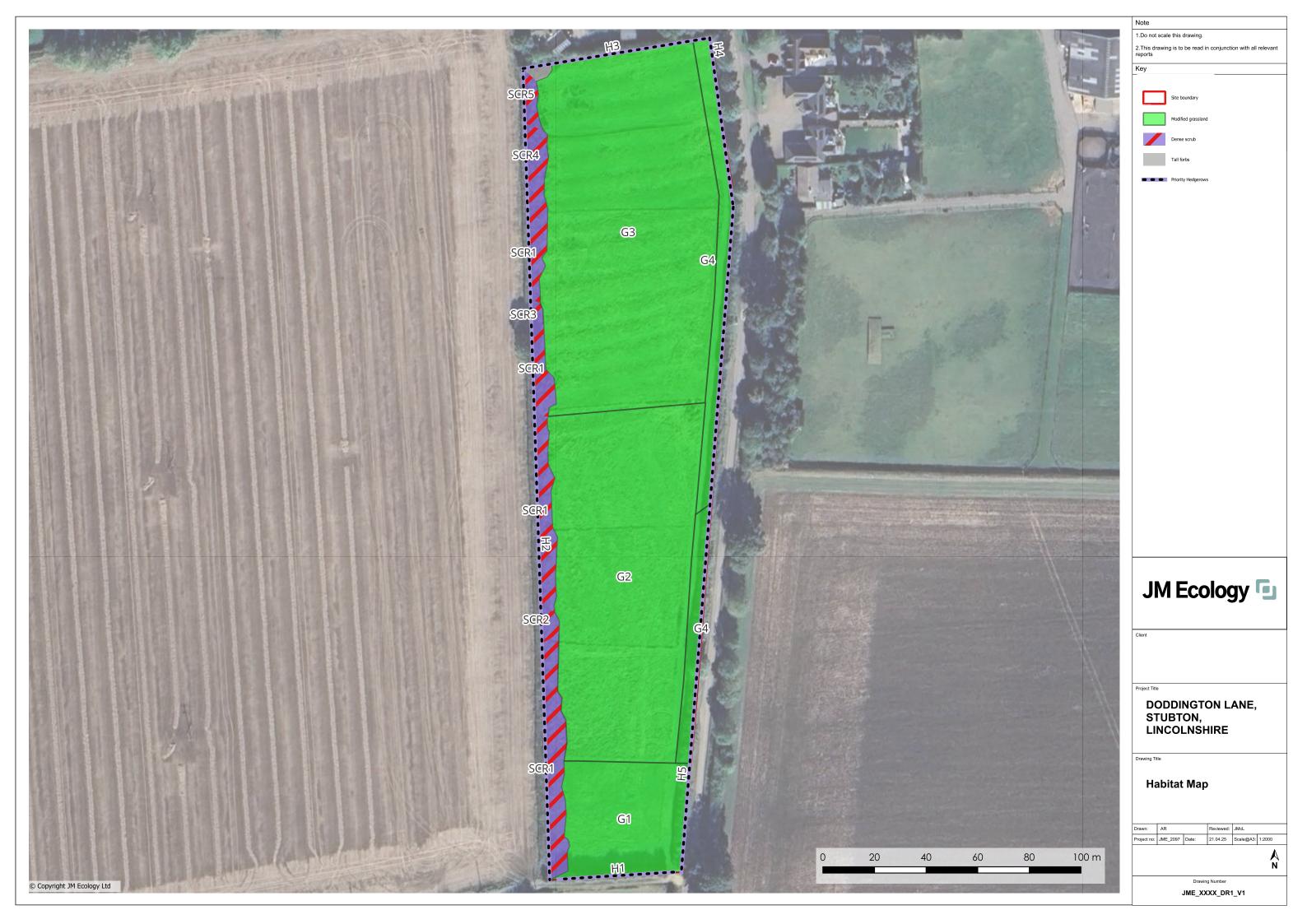
- UK HAB, 2023. UK Habitat Classification Version V2.0
- Wildlife and Countryside Act 1981 (England and Wales) (Amendment) Regulations 2016. Found at: https://www.legislation.gov.uk/uksi/2016/127/contents.
- Wild Mammals (Protection) Act 1996 (England) Found at: https://www.legislation.gov.uk/ukpga/1996/3/contents.



APPENDICES



APPENDIX 1: Baseline Habitat Map





APPENDIX 2: Photographs



Photograph 2: Overview of Modified Grassland Parcel G2



Photograph 3: SCR2 Located On The Western Boundary Adjacent to Hedgerow H2



Photograph 4: Trees T1 and T2 in Hedgerow H2 with Mixed Scrub SCR3 and Bramble Scrub SCR1



Photograph 5: Overview of Grassland G3 and Blackthorn Scrub SCR4



Photograph 6: Overview of Tall Forbs, Mixed Scrub SCR5



Photograph 7: Overview of Hedgerow H3



Photograph 8: Overview of Modified Grassland Parcel G3 and Whole Site Looking North from the Southern Boundary





Photograph 10: Overview of Hedgerow H5



Photograph 11: Overview of Modified Grassland Parcel G4



Photograph 12: Overview of Hedgerow H1





APPENDIX 3: GCN eDNA Laboratory Report

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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
GCN25 5648	Stubton - P1		Pass	Pass	Negative	0/12
GCN25 5649	Stubton - P2		Pass	Pass	Negative	0/12

Matters affecting result: none

Reported by: Amy Bermudez Approved by: Consuela Sopronyi

JM Ecology 🗔