

RWE Renewables UK Dogger Bank South (West) Limited

RWE Renewables UK Dogger Bank South (East) Limited

Dogger Bank South Offshore Wind Farms

Environmental Statement

Volume 7

Appendix 18-3 Great Crested Newt Report

June 2024

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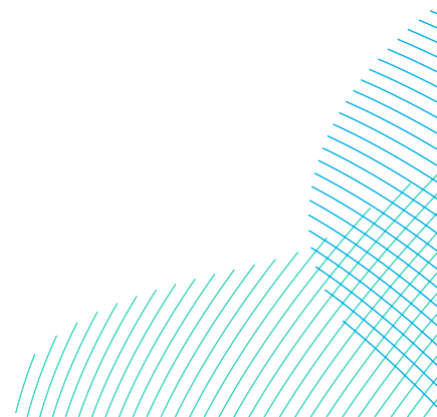
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Great Crested Newt eDNA Survey
Report 2022 & 2023
Dogger Bank South Offshore Wind Farms

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Written by	Jamie Davis MA, BA Assistant Ecologist
Approved by	Jonathan Brickland MSc BSc (Hons) CEnv MCIEEM Director

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Peak Ecology Limited
Arden House
Deepdale Business Park
Bakewell
Derbyshire
DE45 1GT
01629 812511



www.peakecology.co.uk

EXECUTIVE SUMMARY

This report has been prepared by Peak Ecology Ltd, working with Royal HaskoningDHV on behalf of RWE Renewables. It provides the results of a great crested newt (GCN) *Triturus cristatus* Habitat Suitability Index (HSI) assessment and GCN eDNA analysis of ponds within a 250m buffer zone of the Onshore Development Area across the 2022 and 2023 survey seasons.

A desk-based review was carried out prior to the start of the surveys in order to ensure all ponds relevant to the Onshore Development Area, and a 250m GCN buffer, were considered. Consideration was also given to surveying ponds outside of the 250m GCN buffer where there was good terrestrial connectivity with the Onshore Development Area and/or groups of ponds which could support GCN metapopulations. The ponds surveyed fall within an area referred to as the GCN Survey Area.

Where ponds were accessible and landowner permission granted, they were evaluated using the Habitat Suitability Index (HSI) assessment protocol (Oldham *et al.* 2000), and water samples taken for eDNA analysis.

In total, 126 ponds were surveyed, including nine in 2022 and 117 in 2023. Of the ponds assessed for GCN habitat suitability, 11 ponds located within the 250m GCN buffer were classified as either 'Excellent' or 'Good'. There were no ponds within the Onshore Development Area that were assessed as either 'Excellent' or 'Good'. Out of all ponds analysed for GCN eDNA, one pond within the Onshore Development Area returned a positive result, and a further nine ponds within the 250m GCN buffer were found to be positive.

It is highly likely that in undertaking the proposed works an offence could be committed and therefore a protected species licence would be required. The two options, District Level Licencing and a European Protected Species Licence are detailed in the report.

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1 INTRODUCTION

1.1 Proposed Works

RWE Renewables is intending to develop the proposed DBS East and DBS West Offshore Wind Farm Projects, collectively known and referred to as Dogger Bank South (DBS) Offshore Wind Farms (herein referred to as 'the Projects'). The Projects will require a buried onshore export cable between the landfall location and the onshore grid connection points at Creyke Beck, west of Beverley, this area with associated infrastructure is referred to as the Onshore Development Area.

1.2 Legislation

GCN are a European Protected Species (EPS), listed under the EU Habitats Directive and Appendix II of the Bern Convention (1979). They are also listed under Schedule 2 of the Habitats and Species Regulations 2019 and Schedule 5 of the Wildlife and Countryside Act 1981. As such, it is an offence to:

- Intentionally or deliberately capture, kill or injure a GCN;
- Intentionally or recklessly damage, destroy or disturb a breeding site or resting place;
- Possess a GCN, or any part of it; and
- Sell, barter, exchange or transport GCN.

GCN are also listed as a Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act, 2006.

1.3 Zone of Influence

The geographical extent of the potential impact of a proposed development is known as the Zone of Influence (Zoi). The Zoi is determined by the nature of the development and also in relation to individual species, depending on their habitat requirements, mobility and distances indicated in any best practice guideline.

In relation to GCN and this wind farm project, the Zoi is considered to be 250m from the Onshore Export Cable Corridor, the Onshore Substation Zone and the landfall locations. This may be extended in areas where there is good connectivity between ponds and the Onshore Development Area or there are groups of ponds which could support GCN metapopulations.

1.4 GCN Survey Area

The onshore cable corridor lies within the East Riding of Yorkshire; running north-east to south-west, from Skipsea on the coast to a proposed substation site south east of Beverley. An overview map of the Onshore Development Area including all pond locations can be seen in **Figure 1**, also illustrated is a 250m GCN buffer.

Ponds were located in a vast range of differing habitats, including; open farmland/pasture, dense woodland, amenity grassland as well as private estates, residential gardens, golf courses and within recreational commercial fisheries.

The Onshore cable area has been refined during the course of the survey programme. This report is based on the Onshore cable area as issued on the 25th September 2023. The final Onshore cable area was agreed in October 2023, which is presented in **Figure 1**.

1.5 Scope of Report

This Report has been prepared by Peak Ecology Ltd with Royal HaskoningDHV on behalf of RWE Renewables. It provides the results of the great crested newt (GCN) *Triturus cristatus* Habitat Suitability Index (HSI) assessment and eDNA analysis of ponds within a 250m buffer zone of the Onshore Development Area (**Figure 1**). Consideration has been given to surveying ponds outside of this area where there is good terrestrial connectivity with the Onshore Development Area and/or groups of ponds which could support GCN metapopulations. The Onshore Development Area with a 250m buffer is included in Appendix D.

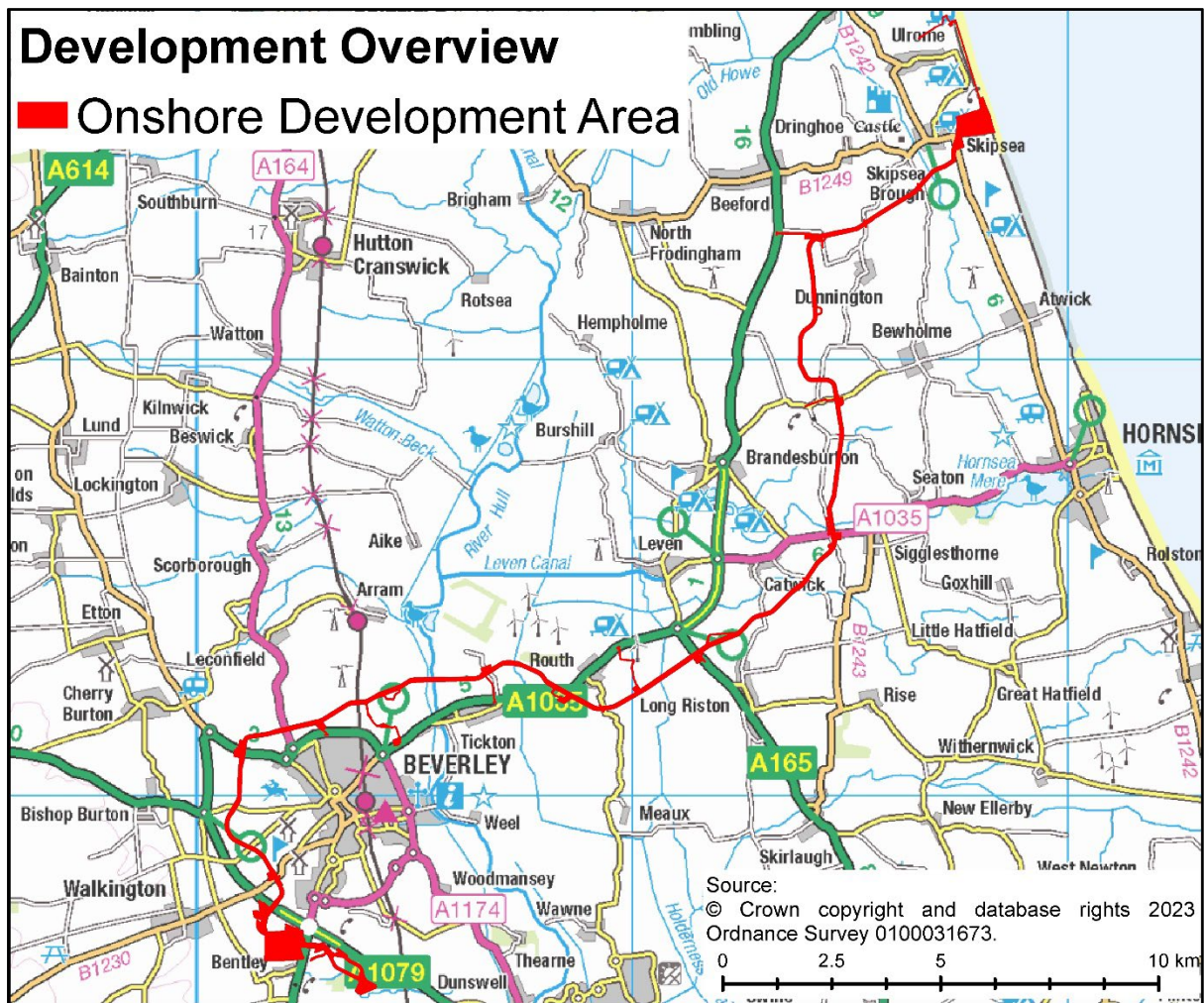
This is a survey data report, and its findings will be used to inform the Ecological Impact Assessment (EclA). Consequently, the purpose of this report is to:

- Detail the methods used to undertake the 2023 pond HSI Assessments and the eDNA sampling;
- Include the survey methodology such as surveyors, weather conditions and any constraints to the 2023 HSI and eDNA survey effort;
- Present the results of the HSI and eDNA surveys, and
- Outline any key recommendations for mitigation and/or avoidance measures where appropriate.

This report does not include an evaluation of impacts or detailed mitigation which will be incorporated into the Environmental Statement.

The approach to this survey and report follows best practice published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2013) and the Biodiversity – Code of Practice for Planning and Development (BSI, 2013). In general, standard accepted survey methods have been followed, and details of survey methods and associated supporting information are provided in section 2.

Figure 1: Onshore Development Area



2 METHODOLOGY

2.1 Desk Study

A desk-based review of GCN records obtained from the North and East Yorkshire Ecological Data Centre (NEYEDC) was undertaken in April 2022. In addition, the Multi-Agency Geographic Information for the Countryside (MAGIC) website was accessed to check for the GCN licence returns from Natural England that were within the GCN Survey Area. For the purposes of the 2023 surveys, it was not considered necessary to repeat the desk-based review of GCN records. The desk study has been reported in a standalone document (Peak Ecology 2022 Desk Study Report), but relevant information to the 2023 GCN survey effort has been included in this report.

To identify all ponds within the GCN Survey Area, OS maps, MAGIC and aerial imagery (accessed via Google on 04/04/23, 03/05/23, 07/06/23 and 21/06/23) were utilised to ensure all ponds were considered for survey. Some ponds were discounted where it could be ascertained with confidence that there was no pond, or no longer a pond, where one had potentially been identified. All of the ponds scoped in this method within the GCN Survey Area were ground-truthed by surveyors in the field. Consideration was also given to surveying ponds outside of the 250m GCN buffer where there was good terrestrial connectivity with the Onshore Development Area and/or groups of ponds which could support GCN metapopulations.

The total number of ponds for consideration was reduced once proposed route amendments were identified and once ground-truthing had been undertaken by surveyors in the field. In addition, instances where ponds were found to have a strong hydrological link to others nearby were considered to be one pond.

Potential ponds have been identified from different sources and mapping systems. Therefore, pond numbering is no longer sequential; this has been intentional and missing numbers do not indicate that ponds have been omitted. Ponds are defined as small bodies of still water formed either naturally or artificially which hold water for more than four months a year. Bodies of water larger than 2ha or 20,000m² are technically defined as lakes rather than ponds. However, for the purposes of this report, all waterbodies considered for survey are referred to throughout as ponds.

2.2 Habitat Suitability Index

Daytime site visits were carried out between the 18th April 2023 and 6th September 2023, with the aim of assessing each pond's potential to support GCN. All ponds, where accessible, were evaluated using the Habitat Suitability Index (HSI) assessment protocol as devised by Oldham *et al.* (2000). During each daytime visit, each accessible pond was assessed against ten key habitat criteria or Suitability Indices (SI) known to impact this species, as listed below:

- SI1 Geographic area;
- SI2 Pond area;
- SI3 Pond drying;
- SI4 Water quality;

- SI5 % Shoreline shade;
- SI6 Presence of waterfowl;
- SI7 Presence of fish;
- SI8 Pond count within 1km;
- SI9 Terrestrial habitat quality; and,
- SI10 % Macrophyte cover.

Based on a standardised scoring system, each individual SI will produce a score of between 0 (unsuitable habitat) and 1 (optimal habitat), these scores are then used to calculate an overall score for each pond. The scores equate to a GCN habitat suitability rating as per **Table 1**, below.

Table 1: Summary of HSI assessment scale

HSI score	Pond Suitability	Occupancy Rate
<0.5	Poor	3%
0.5 – 0.59	Below average	20%
0.6 – 0.69	Average	55%
0.7 – 0.79	Good	79%
>0.8	Excellent	93%

In general, ponds with higher HSI scores are more likely to support GCN than those with lower scores, however this alone does not determine whether or not a pond should be subject to further survey, but rather provides an indication of habitat suitability to aid professional judgement on survey requirements and is a useful tool for informing mitigation or ecological enhancement proposals.

2.3 GCN Environmental DNA (eDNA)

Organisms release DNA into the environment constantly in urine, faeces, gametes, shed skin or hair etc. GCN are no exception to this and as a result their presence can be detected by extracting DNA from the water in which they live; GCN eDNA can be detected for up to three weeks after it has left the animal. Natural England now recognise this methodology as an appropriate approach for determining presence/absence of GCN from non-flowing waterbodies like ponds and lakes.

As part of this assessment, GCN eDNA sampling was carried out across all identified and accessible ponds within the 250m buffer of the proposed scheme alignment, in areas where access on to private land had been agreed.

All water samples were collected by GCN licenced ecologists, or by individuals acting under a licence, and in accordance with Natural England’s WC1067 Advice Note for field and laboratory sampling of GCN eDNA (2014). All eDNA samples were taken during the optimum survey window for establishing the presence or absence of GCN, between 15th April and 30th June.

Surveyors were mindful of biosecurity considerations, especially those relevant to amphibians, to ensure no spread of pathogens or invasive species from one pond to another. Extra care and measures such as the cleaning of footwear and equipment was taken where necessary.

2.4 Surveyors

The survey teams were led by Director Jonathan Brickland MSc, BSc (Hons) Class Licence (2016-22564-CLS-CLS), Technical Director Jessica Eades BSc (Hons) Class Licence (2016-20212-CLS-CLS), Senior Surveyor Darran Sharp BSc (Hons) Class Licence (2015-16963-CLC-CLS), Senior Ecologist Charlotte Haylock BSc (Hons) Class Licence (2021-52149-CLS-CLS), and Ecologist Niamh Gibson BSc (Hons) Class Licence (2023-11339-CL08-GCN).

They were assisted by Senior Surveyor Paul Fisher BSc (Hons), Assistant Ecologist Eve Scott MRes, BSc (Hons), Assistant Ecologist Jamie Davis MA, BA, and Graduate Ecologist Emily Stephenson BSc (Hons). All of the survey team are appropriately qualified for this type of survey based on the CIEEM competency framework (CIEEM, 2013).

2.5 Limitations

2.5.1 *Habitat Suitability Index*

The HSI considers the potential of a pond for GCN colonisation, it is only a tool used in conjunction with other more substantial methodologies including standard survey techniques and eDNA sampling.

2.5.2 *Pond Permanence*

Ponds that were no longer functioning as ponds, or where there was no evidence of a pond having existed, have been listed as “Not a pond” in the results table. Ponds found to have dried up but retaining visible evidence of having previously been a pond, have been listed as “Dry”.

2.5.3 *Survey Timing and Conditions*

One pond was only identified in August 2023 and HSI assessed in September, while three more ponds were subject to restricted access due to the presence of Schedule 1 listed Marsh Harrier’s nesting nearby and were only able to be accessed and surveyed in August. Apart from these exceptions, all surveys were undertaken within the appropriate GCN survey window, from Mid-April to the end of June, under suitable weather conditions.

3 **RESULTS**

3.1 **Desk Study**

Biological records obtained from North & East Yorkshire Ecological Data Centre (NEYEDC) showed that there were records of GCN within the GCN Survey Area; these are presented in **Table 2** below.

Table 2: GCN records within the GCN Survey Area obtained from NEYEDC

Location	Grid Reference	Date	Abundance
Beeford	TA1287354287	2014	2
Catwick	TA11804624	2018	40
Catwick	TA11814625	2018	127
Catwick	TA11814625	2018	121
Catwick	TA11814627	2018	64
Catwick	TA11814627	2018	101
Catwick	TA11814627	2018	121
Cottingham	TA048323	2013	1
Risby	TA0057035628	2013	8
Swine Moor Common	TA046408	2016	62
Swine Moor Common	TA047409	2016	194
Swine Moor Common	TA047409	2016	217
Swine Moor Common	TA047409	2016	17
Swine Moor Common	TA047409	2016	109
Swine Moor Common	TA047409	2016	198
Swine Moor Common	TA047409	2016	50
Tickton	TA066419	2009	1

Desk-based reviews identified a total of 72 ponds to be surveyed within the Onshore Development Area and 250m buffer. An additional 54 ponds situated outside the 250m GCN buffer but with good connectivity; these were also considered.

Fourteen ponds were not surveyed in 2022 and initially planned to be surveyed during 2023 due to being dry, inaccessible, or pending landowner permission. Five of these ponds (P6, P7, P10, P14, P15) were successfully surveyed during 2023, and the remaining nine ponds were no longer relevant because of changes to existing Onshore Development Area boundary.

3.2 Survey Findings

A total of 126 ponds within the GCN Survey Area have been surveyed, including nine ponds in 2022 and 117 ponds in 2023.

A total of eight ponds surveyed were located within the Onshore Development Area (P109, P160, P161, P172, P181, P192, P214 and P218). Only one of these ponds (P109) returned a positive eDNA sample – discussed below – and none were assessed as being ‘Excellent’ or ‘Good’ for GCN habitat suitability. Four of these (P160, P181, P192 and P214) were found to be dry.

3.3 Survey - Habitat Suitability Assessment

Habitat suitability assessments were undertaken on 70 ponds, the results of which are presented within **Table 3** below, and full assessment tables are included in Appendix B.

Three ponds falling within the 250m buffer (P108, P127 and P216) were assessed as ‘Excellent’ for their habitat suitability for GCN. A further eight ponds within the 250m buffer were assessed as ‘Good’ (P14, P113, P139, P152, P156, P177, P219 and P222). There were no ponds within the Onshore Development Area that were assessed as either ‘Excellent’ or ‘Good’ as part of the HSI assessments.

In total 42 ponds were considered unsuitable for eDNA analysis for various reasons including, found to have never been a pond, to have dried up, to be in the late stages of natural succession and no longer functioning as a pond; in one case a pond was very shallow and overrun with the invasive species Australian swamp stonecrop *Crassula helmsii*. HSI assessments were carried out on five of these ponds prior to them drying up or becoming unsuitable (P208, P312, P313, P314 and P315). These five ponds were visited twice, once prior to the optimum survey window for eDNA analysis, and as such, they were able to be HSI assessed but not sampled for eDNA analysis.

The remaining ponds could not be assessed for habitat suitability.

3.4 Survey - Great Crested Newt Environmental DNA (eDNA)

The results of the eDNA analysis returned a total of 11 positive samples out of the 60 ponds that were analysed. Data is presented in **Table 3** and also mapped in Appendix D.

These findings indicate that GCN were present in one pond (P109) within the Onshore Development Area. Nine ponds were positive and within the 250m GCN buffer (P12, P13, P127, P139, P152A, P156, P166, P184, and P212). One further pond (P316) was found to be positive and outside of the 250m GCN buffer.

Table 3: Pond description, HSI Score, suitability for GCN and eDNA result

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P5	TA 13875 51243	1,000m ² pond. Marginal vegetation surrounding pond including rushes (<i>Juncus</i> sp.), large amount of duckweed <i>Lemna minor</i> and shoreline shade provided by ash <i>Fraxinus excelsior</i> .	0.58	Below Average	Negative
P6	TA 14248 46876	Well established pond of 225m ² , surrounded by dense terrestrial vegetation and hawthorn <i>Crataegus monogyna</i> trees. Found within the same wooded field margin as P7.	0.60	Average	Negative
P7	TA 14238 46843	250m ² pond with poor water quality. Recently cut back terrestrial vegetation and a small amount of emergent vegetation. Found within a wooded corner of a field margin.	0.41	Poor	Negative
P8	TA 08758 42720	300m ² single long pond in two sections very turbid, containing large fish including carp <i>Cyprinus carpio</i> , with steep banks and little to no marginal vegetation.	0.29	Poor	Negative
P9	TA 05045 42518	An algae-dominated pond, 25m ² in area. Fringed by stands of common reed <i>Phragmites australis</i> , depth approximately 50cm.	0.65	Average	Negative
P10	TA 05072 42514	Dry - no HSI or eDNA undertaken. Very ephemeral in nature.			
P11	TA 05165 42429	Less than 10m ² small shallow pond, less than 30cm in depth, fringed with bulrush <i>Typha latifolia</i> , flag Iris <i>iris pseudacorus</i> , Water plantain <i>Alisma plantago-aquatica</i> and Water forget-me-not <i>Myosotis scorpioides</i> .	0.54	Below Average	Negative
P12	TA 05123 42422	Small pond of less than 5m ² in woodland clearing, no aquatic marginal vegetation and depth of less than 15cm.	0.38	Poor	Positive
P13	TA 05183 42408	Small woodland pond, 4m ² in area, with dominant algae and common reed fringes.	0.45	Poor	Positive
P14	TA 03972 42281	No HSI or eDNA undertaken – no access due to Marsh Harrier nest.			

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P15	TA 04475 42284	No HSI or eDNA undertaken – no access due to Marsh Harrier nest.			
P16	TA 03624 41962	Large 1,000m ² man-made garden pond with planted marginal vegetation. Semi-abundant non-native invasive Australian swamp stonecrop identified. Fish stocked, minor wildfowl presence.	0.58	Below Average	Negative
P105	TA 17414 56779	No landowner access granted – no HSI or eDNA undertaken.			
P107	TA 17893 55843	Not a pond – no HSI or eDNA undertaken.			
P108	TA 17407 55383	Pond of 450m ² surrounded by willow <i>Salix Sp.</i> and bushy scrub within arable wider landscape. Entire pond now filled with common reed.	0.85	Excellent	Negative
P109	TA 17731 55154	Within arable land a 40m ² pond next to a hedgerow and surrounded by tall herbs (rosebay willow herb <i>Chamaenerion angustifolium</i> and common nettle <i>Urtica dioica</i>). Filled with algae.	0.53	Below Average	Positive
P110	TA 17730 54929	50m ² ornamental garden pond with several islands but low water levels, next to an arable field. Smooth newt <i>Lissotriton vulgaris</i> egg wraps recorded. 95% cover of macrophytes.	0.56	Below Average	Negative
P111	TA 17557 54785	Not a pond – no HSI or eDNA undertaken.			
P112	TA 17707 54451	Small 18m ² pond within an arable field boundary surrounded by nettle and tall grass, 10% shaded by hawthorn scrub. 80% of the water surface covered in algae.	0.62	Average	Negative
P113	TA 17270 51353	Open agricultural pond of 180m ² .	0.78	Good	Negative

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P114	TA 17823 54314	Small 10m ² partly shaded pond in arable field boundary surrounded with nettles and willowherb and mostly covered in algae.	0.45	Poor	Negative
P115	TA 18006 54260	Small 20m ² nutrient enriched open pond within arable fields by grass. No macrophytes present.	0.29	Poor	Negative
P116	TA 17615 54242	Not a pond – no HSI or eDNA undertaken.			
P118	TA 17601 54013	No landowner access granted – no HSI or eDNA undertaken.			
P119	TA 17662 53978	Not a pond – no HSI or eDNA undertaken.			
P122	TA 17383 53742	500m ² pond in a wooded patch between grazed and arable fields. 5% shaded with trees and grasses along the shoreline. Minor presence of water fowl.	0.81	Excellent	Negative
P126	TA 15036 53372	Dry – no HSI or eDNA undertaken.			
P127	TA 15236 53353	Large 875m ² pond in farmhouse garden. Good water quality. Partly lined by trees and 30% cover in macrophytes.	0.8	Excellent	Positive
P128	TA 15603 53030	Dry – no HSI or eDNA undertaken.			
P130	TA 14468 52620	Small 10m ² field boundary pond, next to hedgerow. Hawthorn and tall herbs shade 95% of the water surface. Entire duck weed cover.	0.23	Poor	Negative
P134	TA 14451 52143	Not a pond – no HSI or eDNA undertaken.			
P135	TA 14260 51515	30m ² shaded pond at confluence of two wet ditches in corner of field. Depth of 40cm in centre. No macrophytes or invertebrates identified, susceptible to nutrient runoff from the field.	0.39	Poor	Negative

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P136	TA 13811 51446	No landowner access granted – no HSI or eDNA undertaken.			
P137	TA 14402 51408	Field pond of 400m ² dominated by common reed. Evidence indicates young fish present, with three-spined stickleback <i>Gasterosteus aculeatus</i> and smooth newt egg wrap recorded.	0.66	Average	Negative
P138	TA 13975 51350	Garden moat of 30m ² , lacking recent maintenance, 80% shaded. not holding much water at present, water that is present dominated by watercress <i>Nasturium aquaticum</i> .	0.51	Below Average	Negative
P139	TA 13865 51251	Single garden lake of 2,000m ² rather than two ponds. GCN egg wraps recorded. Shoreline shade 40%. Long leaved pond weed <i>Potamogeton nodosus</i> present. Minor presence of waterfowl and possibility of fish.	0.74	Good	Positive
P143	TA 14325 49589	Dry – no HSI or eDNA undertaken. Within a densely vegetated, wooded area between two field margins. Possibility of occasionally holding water.			
P145	TA 14207 49133	Field boundary pond of 400m ² mostly shaded by willow trees. Some emergent vegetation and algae. Minor evidence of waterfowl.	0.63	Average	Negative
P146	TA 14328 48974	No landowner access granted – no HSI or eDNA undertaken.			
P147	TA 14262 48956	No landowner access granted – no HSI or eDNA undertaken.			
P149	TA 14454 48746	36m ² recently excavated open pond within fenced off conservation area (a residential patch of habitat within arable setting). Depth of 1m. Water quality was poor with lack of invertebrates and abundant blanket weed <i>Spirogyra Sp.</i>	0.55	Below Average	Negative
P150	TA 15093 48522	No landowner access granted – no HSI or eDNA undertaken.			

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P152	TA 14544 48249	50m ² pond within a heavily vegetated corner of an arable field. Contains emergent vegetation including yellow iris <i>Iris pseudacorus</i> . No evidence of fish or waterfowl noted.	0.73	Good	Negative
P152A	TA 14498 48281	18m ² pond with an absence of fish and wild fowl. Found within a residential garden surrounded by arable fields.	0.67	Average	Positive
P153	TA 14375 46961	140m ² pond on a field margin with trees lining one side surrounded by farm curtilage. Some anecdotal evidence of GCN in the pond.	0.52	Below Average	Negative
P154	TA 14848 46954	Not a pond – no HSI or eDNA undertaken.			
P155	TA 14268 46781	Dry – no HSI or eDNA undertaken. Dried up reed bed in woodland.			
P156	TA 14838 46364	250m ² shaded pond within a woodland parcel with minor evidence of waterfowl and an absence of fish. Some well-established aquatic vegetation and terrestrial vegetation.	0.79	Good	Positive
P157	TA 15193 46157	No eDNA undertaken – not physically accessible. Deep set 220m ² pond on land bordering Hornsea garden centre car park. Densely vegetated steep banks surrounding the border and 20% cover of aquatic vegetation.	0.7	Good	N/A
P158	TA 14226 46056	400m ² pond with large patches of bare ground on the margin. Within an arable field.	0.76	Good	Negative
P159	TA 15213 45715	Dry – no HSI or eDNA undertaken.			
P160	TA 14594 45700	Dry – no HSI or eDNA undertaken.			
P161	TA 14421 45451	Small 40m ² pond within an arable field. Surrounded by vegetation, reeds and willow shrub.	0.54	Below Average	Negative

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P163	TA 13809 44453	120m ² pond with 95% cover of emergent vegetation surrounded by very high-density terrestrial vegetation including a row of conifers <i>Pinophyta Sp.</i> Within farm house property.	0.69	Average	Negative
P163A	TA 13793 44440	Small 9m ² ornamental fountain pond with a minor population of wild fowl reported and 50% shoreline shade. Within the same farmhouse property as P163.	0.55	Below Average	Negative
P164	TA 12226 44351	Very large 30,000m ² pond within an active quarry site. Major evidence of waterfowl and minor fish evidence. Only 5% macrophyte cover.	0.45	Poor	Negative
P165	TA 12240 44275	A pond of 1200m ² in a small grassy area within an active quarry site. 5% cover of aquatic vegetation and grasses dominated terrestrial vegetation.	0.7	Good	Negative
P166	TA 11370 43626	Large 1500m ² well maintained pond within a farmhouse property at the foot of a garden adjacent to arable land. Half lined by amenity grassland and half surrounded by a line of trees. Evidence of waterfowl present. No macrophyte cover due to recent dredging and clearance.	0.8	Excellent	Positive
P167	TA 11324 43591	Not a pond – no HSI or eDNA undertaken.			
P168	TA 11063 43282	No eDNA undertaken. Large agricultural slurry pond of 800m ² , not considered for eDNA very bad water quality. 100% dark green turbidity, possibly contains sewage and blue green algae, poor unsuitable banks and excessive nutrients.	0.52	Below Average	N/A
P169	TA 07635 43200	Not a pond – no HSI or eDNA undertaken.			

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P170	TA 06178 42898	Small, shaded pond of 60m ² surrounded by sallow between two arable fields. 95% shaded by trees and woody debris. Contains <i>Glyceria</i> and bittersweet <i>Solanum dulcamara</i> .	0.49	Poor	Negative
P171	TA 08807 42825	No landowner access granted – no HSI or eDNA undertaken.			
P172	TA 06633 42752	Small mostly shaded pond of 30m ² surrounded by arable land. Shoreline vegetation dominated by bramble <i>Rubus fruticosus</i> and nettle. 50% cover by macrophytes mainly <i>Glyceria</i> and algae.	0.46	Poor	Negative
P173	TA 10783 42520	Not a pond – no HSI or eDNA undertaken.			
P174	TA 09041 42510	Not a pond – no HSI or eDNA undertaken.			
P175	TA 10750 42457	Large shaded circular pond of 300m ² in grazed field, fenced off. Pond contains stands of willow shading 95% of the surface. Almost entirely covered with green algae at time of survey.	0.56	Below Average	Negative
P176	TA 09155 42425	Large shaded pond of 500m ² covered by willow trees between arable fields.	0.57	Below Average	Negative
P177	TA 04149 42432	No HSI or eDNA undertaken – no access due to Marsh Harrier nest.			
P178	TA 05700 42399	Large open pond of 1200m ² in the corner of a grazed field. 50% cover of macrophytes with young fish/stickle backs present. Abundant algae.	0.53	Below Average	Negative
P179	TA 09124 42306	Not a pond – no HSI or eDNA undertaken.			
P180	TA 09088 42312	Dry – no HSI or eDNA undertaken.			

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P181	TA 03540 42138	Dry – no HSI or eDNA undertaken. Within secure dog walking field.			
P182	TA 08131 42102	200m ² shaded pond in a wooded corner between a road and agricultural buildings.	0.55	Below Average	Negative
P183	TA 03875 42061	Dry – no HSI or eDNA undertaken. Within arable field.			
P184	TA 03958 41670	240m ² poor quality shallow pond within a sheep grazed field. 10% coverage of aquatic vegetation and all bordering terrestrial vegetation is heavily grazed.	0.6	Average	Positive
P185	TA 01274 41502	Not a pond – no HSI or eDNA undertaken. No evidence of water. Nettle bed surrounded by Willow.			
P186	TA 02089 41117	Dry – no HSI or eDNA undertaken.			
P187	TA 00675 40229	Not a pond – no HSI or eDNA undertaken.			
P188	TA 00650 40115	300m ² pond within a residential garden. 95% cover of emergent vegetation with poor terrestrial habitat.	0.79	Good	Negative
P189	TA 00832 39865	No HSI or eDNA undertaken – not physically accessible. Steep densely vegetated banks.			
P190	TA 00823 39833	No eDNA undertaken – not physically accessible. 800m ² very poor-quality water with no emergent vegetation and minor waterfowl presence. Man made concrete lined pond with steep banks, with overgrown terrestrial vegetation bordering 100% of the pond.	0.68	Average	N/A
P191	TA 01489 38723	Dry – no HSI or eDNA undertaken. Densely vegetated with Nettle and Elder <i>Sambucus nigra</i> .			
P192	TA 01534 38517	Dry – no HSI or eDNA undertaken. Dense mat of grass across entire pond.			

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P194	TA 02475 37390	No landowner access granted – no HSI or eDNA undertaken.			
P195	TA 01088 37352	No landowner access granted – no HSI or eDNA undertaken.			
P196	TA 02239 37305	No landowner access granted – no HSI or eDNA undertaken.			
P199	TA 01225 36850	Dry – no HSI or eDNA undertaken.			
P200	TA 02267 36746	Dry – no HSI or eDNA undertaken.			
P201	TA 04003 36699	Not a pond – no HSI or eDNA undertaken.			
P202	TA 03884 36659	Not a pond – no HSI or eDNA undertaken.			
P203	TA 04090 36502	450m ² pond within a cow grazed field. Rarely dries and has less than 5% aquatic vegetation and a small amount of terrestrial vegetation. Mature trees established on one side of the pond creating 20% shoreline shade.	0.68	Average	Negative
P204	TA 02531 36259	Dry – no HSI or eDNA undertaken.			
P205	TA 03254 36150	450m ² pond within cattle-grazed field. Rarely dries and has less than 5% aquatic vegetation and a small amount of terrestrial vegetation. Mature trees established on one side of the pond creating about 20% shoreline shade.	0.42	Poor	Negative
P206	TA 01749 36132	No HSI or eDNA undertaken – not physically accessible. Very steep densely vegetated banks, with no access into old pit/quarry.			

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P207	TA 02892 36097	16m ² shaded woodland pond, depth unknown. No aquatic vegetation, with and terrestrial vegetation tall herb and scrub. No evidence of fish or fowl. 70% accessible at time of survey.	0.47	Poor	Negative
P208	TA 04184 36053	140m ² heavily shaded, shallow pond which dries annually. Water levels too low to collect eDNA samples. Within a woodland area, with no evidence of fish or waterfowl.	0.54	Below Average	N/A
P209	TA 03848 36008	No landowner access granted – no HSI or eDNA undertaken.			
P210	TA 01845 35937	No landowner access granted – no HSI or eDNA undertaken.			
P211	TA 01836 35944	No landowner access granted – no HSI or eDNA undertaken.			
P212	TA 02020 35888	450m ² pond within a residential garden with tree line bordering 50% of the margin. No evidence of fish and minor evidence of waterfowl.	0.75	Good	Positive
P213	TA 03220 35825	No landowner access granted – no HSI or eDNA undertaken.			
P214	TA 03630 35821	Dry – no HSI or eDNA undertaken.			
P215	TA 02063 35786	No landowner access granted – no HSI or eDNA undertaken.			
P216	TA 03678 35734	440m ² open, well-established pond, with 30% shoreline shaded predominantly from a mature willow. Good quality terrestrial habitat.	0.87	Excellent	Negative
P217	TA 03214 35589	Shaded woodland pond of 60m ² and a depth of 0.5m. Leaf litter on the bottom and surface covered in duckweed. Frogspawn and tadpoles present.	0.56	Below Average	Negative
P218	TA 04016 35559	Open pond surrounded by arable field. 70m ² in size. Macrophyte 40% cover including occasional bulrush.	0.64	Average	Negative

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P219	TA 04192 35437	140m ² pond on an arable field margin with 50% emergent vegetation including dense reeds. Moderate terrestrial habitat.	0.7	Good	Negative
P220	TA 04481 35308	380m ² pond on an arable field margin with relatively bare margins with limited terrestrial vegetation. 30% cover of aquatic vegetation.	0.84	Excellent	Negative
P221	TA 03656 35285	Shallow woodland pond of 35m ² , pond central matting of <i>Glyceria</i> with abundant pockets of Brooklime <i>Veronica beccabunga</i> .	0.63	Average	Negative
P222	TA 03708 35271	Recently dredged 120m ² pond in a wet wooded corner of arable field. surrounded by tall herbs and scrub with abundant algae.	0.73	Good	Negative
P309	TA 10047 43046	No eDNA undertaken – not physically accessible. 1,500m ² pond within arable fields. Very open with minimal shoreline shading. No aquatic vegetation noted. There is major waterfowl presence. Very steep sides.	0.5	Below Average	N/A
P312	TA 05056 41197	Dry at time of eDNA survey. 400m ² pond on Swinemoor Common. HSI undertaken earlier in the season prior to pond drying up. Shallow flooded area, drying annually. Evidence of horse <i>Equus caballus</i> and dog <i>Canis lupus familiaris</i> disturbance.	0.57	Below Average	N/A
P313	TA 04943 41141	Dry at time of eDNA survey. 2,000m ² pond on Swinemoor Common. HSI undertaken earlier in the season prior to pond drying up. Shallow flooded area, drying annually. Evidence of horse and dog disturbance.	0.57	Below Average	N/A
P314	TA 04903 40988	Dry at time of eDNA survey. 160m ² pond on Swinemoor Common. HSI undertaken earlier in the season prior to pond drying up. Shallow flooded area, drying annually. Evidence of horse and dog disturbance. Presence of Australian swamp stonecrop.	0.52	Below Average	N/A

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P315	TA 04839 40938	Dry at time of eDNA survey. 100m ² pond on Swinemoor Common. HSI undertaken earlier in the season prior to pond drying up. Shallow flooded area, drying annually. Evidence of horse and dog disturbance.	0.5	Below Average	N/A
P316	TA 04979 40904	2,000m ² pond on Swinemoor Common. 80% reduction in water level since HSI undertaken in March. Likely to dry annually. Presence of Australian swamp stonecrop in and around the pond, evidence of horse and dog disturbance, and 80% macrophyte cover.	0.57	Below Average	Positive
P319	TA 05184 41249	Dry – no HSI or eDNA undertaken. Pond on Swinemoor Common. Shallow flooded area, drying annually. Lots of horse and dog disturbance.			
P400	TA 14066 50408	Not a pond – no HSI or eDNA undertaken.			
P401	TA 00515 40889	Not a pond – no HSI or eDNA undertaken.			
P402	TA 09235 42967	Tree-lined 350m ² pond within farmland property. No aquatic vegetation present and moderate terrestrial habitat.	0.44	Poor	Negative
P403	TA 09900 43627	No eDNA undertaken due to size of pond and fish-stocking. Very large 50,000m ² boating pond within the high farm country park caravan site. With large populations of fish and waterfowl.	0.29	Poor	N/A
P404	TA 09576 43510	12,000m ² pond within High Farm Holiday Park. With large populations of fish and waterfowl.	0.28	Poor	Negative
P405	TA 09378 43499	9,000m ² pond within the High Farm Holiday Park. With large populations of fish and waterfowl.	0.29	Poor	Negative
P406	TA 09481 43632	Fishing lake - no HSI or eDNA undertaken due to continued replenishing of fish stocks.			

Pond	OS grid ref	Description	HSI Score	Suitability for GCN	eDNA
P407	TA 13531 49872	70m ² pond bordering a woodland area on farmland. 50% shade from trees lining one side of the bank. No aquatic vegetation was noted but good terrestrial habitat.	0.61	Average	Negative

3.5 Constraints

3.5.1 Access

Landowner access across the GCN Survey Area was limited on occasion. There were in total 11 ponds that landowner access could not be obtained for, (P105, P118, P146, P147, P150, P171, P194, P195, P196, P209 and P213). For these ponds, there were repeated efforts to gain permission to conduct surveys. Access to these ponds was requested by Dalcour Maclaren, on behalf of RWE, from landowners and land agents, with no success, and surveyors on the ground repeatedly tried but failed to obtain a response from calling at houses and knocking on doors.

Locked gates, dense vegetation and/or steep sides limited access to three ponds, (P189, P206, and P406), thus preventing HSI and eDNA assessments from being undertaken. A further four ponds were unable to be accessed for eDNA sampling for the same reasons, although HSI assessments were able to be taken from distance for these ponds, (P157, P168, P190, and P309).

3.5.2 Anomalies

Anomalies discovered during survey work in the field included 42 ponds which were found to be dry or non-existent; of these, no evidence of a pond or waterbody could be found by surveyors on the ground for 12 ponds (P107, P111, P116, P119, P134, P154, P167, P169, P173, P174, P179 and P400). The other 29 ponds were all found to be dry at the time of eDNA survey, although HSI assessments were carried out for five of these ponds which were dry earlier in the season (P208, P312, P313, P314, and P315). Just one pond (P401), which was initially scoped as dry from utilising OS maps, MAGIC and aerial views, was not ground-truthed and confirmed as dry by surveyors in the field; this pond does fall outside the GCN 250m buffer.

Three more ponds were dropped from the survey programme; it was established that three 'pairs of ponds' were so close to each other that they effectively functioned as a single pond and were treated as such (P130, P139, and P315). In addition, two ponds (P152A and P163A) were added into the programme; these were initially identified as single ponds but on the ground were two distinct waterbodies and were treated as separate ponds. Two possible ponds (P400 and P401) were added at a later date to survey; a site visit confirmed that the first of these was actually dry and not an existing pond, while the latter was scoped as dry through aerial imagery. Eight further ponds (P143, P150, P402, P403, P404, P405, P406,

P407) were added for survey consideration following the announcement of the proposed route amendments.

One pond (P406) was not subject to eDNA analysis or an HSI assessment as it was found by surveyors on the ground to be a fishing pond with fish stocks regularly replenished. Another (P403) was a boating pond significantly larger than 20,000m². Due to the size, the results of the HSI assessment undertaken in the field, and lead surveyor discretion, this pond was not considered worthwhile for eDNA analysis.

3.5.3 Ponds Identified Outside of Optimum Survey Window

Five ponds (P126, P136, P210, P211 and P215) are outside of the 250m GCN buffer and were originally not taken into consideration: subsequently nearby ponds (P127, P139 and P212) returned positive eDNA results for GCN. Landowner access to the five ponds could not be secured during the optimum survey window, and these ponds have not been able to be assessed.

Another pond (P152B), was only identified in July/August after discussions with the landowner, and after a nearby pond (P152A) returned a positive eDNA result. This pond (P152B), was relatively new (established in the previous 18 months) and therefore was omitted from the initial desk study identification of ponds to survey, although an HSI assessment was able to be carried out after the optimum survey window.

A further three ponds (P14, P15 and P177), were unable to be accessed during the optimum survey window for eDNA sampling. This was as a result of the access restrictions put in place due to two Marsh Harrier nests nearby. eDNA sampling was therefore not conducted upon these three ponds, although HSI assessments were carried out in August, once it had been established that the Marsh Harrier nests were no longer occupied.

3.5.4 Lifespan of Data

HSI and eDNA results could change at any time but it is generally considered unlikely. The results and recommendations contained within this report are considered to be valid for up to two years from the date of survey, assuming that there are no significant changes to the site condition or management within this period. It is recommended that the need to repeat the survey effort is reviewed after a two-year period. After this period, or should the site conditions change, an update may be required in order to inform ecological constraints to development proposals and/or accompany a planning submission.

4 RECOMMENDATIONS

4.1 Avoidance and Mitigation Measures

If the proposed works are likely to cause a breach of legislation, and avoidance is not possible, then either a non-licensed method statement or a licence will be required to undertake the works. Licensing options are described in Section 4.2. Under some circumstances, it may be appropriate to undertake works under a non-licensed method statement, should potential impacts be minor, temporary or unlikely.

4.2 Licensing

There are two options should licensing be required. These are outlined below.

4.2.1 *District Level Licensing*

District Level Licencing, administered by Natural England (UK Gov, 2022), is one option for securing and delivering GCN mitigation. Natural England hold information on GCN populations which are used to predict GCN risk zones, as follows:

- Red zones – Contain suitable habitat and most important areas for GCN;
- Amber zones – Contain suitable habitat and GCN are likely to be present;
- Green zones – Moderate habitat suitability mean GCN may be present, and
- White zones– Low probability of GCN presence (but cannot be ruled out).

The risk zone is then used to inform the GCN licensing strategy. Various factors are used to generate a District Level Licence, including the risk zone category, the nature of the impact, the habitats that would be impacted and the number of ponds which could be impacted. Once Natural England has assessed the impacts of the proposed development, they also calculate a sum of money, the conservation payment, which would create and enhance ponds and habitats off-site to benefit great crested newts. This is all set out in an impact assessment and conservation payment certificate. Once the applicant signs up and pays the necessary fees the licence is issued and work can begin.

The GCN Survey Area falls within Green and Amber Zones.

4.2.2 ***European Protected Species Licensing for GCN***

An EPS mitigation licence is the second option. With this licence Natural England require more detail on the GCN population(s) and on what mitigation is being put in place; the method statement is a key aspect of the licence. In addition, the impacts of the proposed work on GCN and a detailed work schedule will also need to be submitted. Further to this, a statement showing there is no other satisfactory alternative for licensing as well as references to show the ecological consultant has the necessary experience to hold a GCN mitigation licence, are required. Although not a statutory determination period, Natural England typically respond within 30 working days from the date of the application submission.

In the case of Nationally Significant Infrastructure Projects (NSIPs) such as this, a draft licence is submitted as part of the Development Consent Order (DCO) application. If it is acceptable, Natural England will issue a 'Letter of no Impediment' which indicates that the licence application is acceptable in principle and a formal licence would be issued at a later date.

5 **REFERENCES**

British Standards Institution (2013) BS42020:2013 Biodiversity – code of practice for planning and development. BSI Standards Ltd, London

Chartered Institute of Ecology and Environmental Management (2013) *Competencies for Species Surveys in Britain and Ireland; Overview*. CIEEM, Winchester. Online [Available at] <http://www.cieem.net/competencies-for-species-survey-css->

Department for Communities and Local Government (2021) *The National Planning Policy Framework*. <http://www.communities.gov.uk/publications/planningandbuilding/nppf>

Multi-Agency Geographic Information for the Countryside Website. <http://www.magic.gov.uk/>
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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.

Appendix A: Protected and Priority Species

Legal protection is afforded to particular habitats and species (as well as designated sites). The legislation, and the habitats and species listed, vary between the different jurisdictions. Certain habitats and species are also considered to have some level of nature conservation importance, due to factors such as their rarity, vulnerability or declining population/status. This document uses the term 'priority habitats' and 'priority species', as they are those which should be considered as priorities for conservation (it should not be confused with priority habitats and species as listed in the EU Habitats Directive). Priority habitats and species are defined as those which are:

- 1) listed as a national priority for conservation (such as those listed as habitats and species of principal importance for the conservation of biodiversity);
- 2) listed as a local priority for conservation, for example in the relevant local Biodiversity Action Plan (BAP);

Most protected species are also considered to be priority species, although there are some exceptions. There are numerous priority habitats and species which do not receive any legal protection.

Note that the terms 'priority habitat' and 'priority species' used in this document differ from the following uses of the same terms:

- a) These terms were previously used to denote those habitats and species afforded the highest level of priority for conservation under the UK BAP; this has been superseded by the lists of habitats and species of principal importance for the conservation of biodiversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, Section 7 of the Environment (Wales) Act 2016, or their equivalents in Scotland (Nature Conservation (Scotland) Act 2004, Scotland's Biodiversity Strategy and the Scottish Biodiversity List¹⁵) and Ireland (Actions for Biodiversity – Ireland's National Biodiversity Plan 2017 -2021¹⁶; and Valuing Nature – A Biodiversity Strategy for Northern Ireland to 2020).
- b) The terms 'Priority Natural Habitat Type' and 'Priority Species' are used to denote specific lists of habitats and species under The Conservation of Habitats and Species Regulations 2017; these are defined in Articles 1(d) and 1(h) respectively of the Habitats Directive.

Species-Specific Wildlife Legislation

Table 4: Species-Specific Wildlife Legislation

Feature/Species	Legislation	It is an offence to:
Common amphibians	Sch. 5 and Sch. 9 Wildlife and Countryside Act 1981 (as amended). Countryside and Rights of Way Act 2000.	<ul style="list-style-type: none">• Sell;• Transport; and• Advertise for sale.
GCN	Sch. 5 Wildlife and Countryside Act 1981 (as amended). Conservation of Habitats and Species Regulations 2017.	<ul style="list-style-type: none">• Kill;• Injure;• Disturb• Destroy any place used for rest or shelter.

In addition, species and habitats listed on the UK Post-2010 Biodiversity Framework (formally the UK BAP) are also considered. Details on these species and habitats can be found at: <https://jncc.gov.uk/our-work/uk-bap-priority-species/>.

Appendix B: HSI Results

Pond Number	P5		P6		P7		P8		P9	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	1000	0.95	225	0.45	1000	0.95	225	0.45	25	0.05
SI ₃ - Pond Drying	Never	0.90	Never	0.9	Never	0.90	Never	0.9	Rarely	1.0
SI ₄ - Water Quality	Good	1.00	Poor	0.33	Good	1.00	Poor	0.33	Moderate	0.67
SI ₅ - Shoreline Shade (1m from the shore) (%)	65	0.90	60	0.9	65	0.90	60	0.9	50	1.0
SI ₆ - Fowl	Major	0.01	Minor	0.67	Major	0.01	Minor	0.67	Absent	1
SI ₇ - Fish	Possible	0.67	Possible	0.67	Possible	0.67	Possible	0.67	Absent	1
SI ₈ - Pond Count	7	0.85	12+	1	7	0.85	12+	1	8	0.88
SI ₉ - Terrestrial habitat	Good	1.00	Poor	0.33	Good	1.00	Poor	0.33	Moderate	0.67
SI ₁₀ - Macrophytes (% of the pond surface area)	90	0.90	5	0.35	90	0.90	5	0.35	35	0.67
Habitat Suitability Index (HSI Score)	0.58		0.60		0.41		0.29		0.65	
Pond Suitability	Below average		Average		Poor		Poor		Average	

Pond Number	P11		P12		P13		P14		P16	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	70	0.14	3	0.01	70	0.14	170	0.34	3	0.01
SI ₃ - Pond Drying	Annually	0.10	Annually	0.10	Annually	0.10	Never dries	0.9	Annually	0.10
SI ₄ - Water Quality	Poor	0.33	Moderate	0.67	Poor	0.33	Good	1.0	Moderate	0.67
SI ₅ - Shoreline Shade (1m from the shore) (%)	5	1.0	10	1.0	5	1.0	10	1	10	1.0
SI ₆ - Fowl	Absent	1.0	Absent	1.0	Absent	1.0	Minor	0.67	Absent	1.0
SI ₇ - Fish	Absent	1.0	Absent	1.0	Absent	1.0	Minor	0.33	Absent	1.0
SI ₈ - Pond Count	4	0.88	8	0.88	4	0.88	6	0.8	8	0.88
SI ₉ - Terrestrial habitat	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67
SI ₁₀ - Macrophytes (% of the pond surface area)	70	1.0	0	0.3	70	1.0	80	1	0	0.3
Habitat Suitability Index (HSI Score)	0.54		0.38		0.45		0.72		0.58	
Pond Suitability	Below Average		Poor		Poor		Good		Below Average	

Pond Number	P108		P109		P110		P112		P113	
Sl ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
Sl ₂ - Pond Area (m ²)	450	0.9	40	0.08	50	0.1	18	0.03	180	0.36
Sl ₃ - Pond Drying	Sometimes	0.5	Annually	0.1	Annually	0.1	Rarely	1.0	Rarely	1.0
Sl ₄ - Water Quality	Good	1.0	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67
Sl ₅ - Shoreline Shade (1m from the shore) (%)	30	1	15	1	20	1	10	1	0	1
Sl ₆ - Fowl	Minor	0.67	Absent	1	Absent	1	Absent	1	Absent	1
Sl ₇ - Fish	Absent	1	Absent	1	Absent	1	Absent	1	Absent	1
Sl ₈ - Pond Count	6	0.8	7	0.85	7	0.85	12	0.98	12+	1
Sl ₉ - Terrestrial habitat	Good	1	Moderate	0.67	Moderate	0.67	Poor	0.33	Moderate	0.67
Sl ₁₀ - Macrophytes (% of the pond surface area)	100	0.8	30	0.6	95	0.85	80	1	20	0.5
Habitat Suitability Index (HSI Score)	0.85		0.53		0.56		0.62		0.78	
Pond Suitability	Excellent		Below Average		Below Average		Average		Good	

Pond Number	P114		P115		P122		P115		P122	
Sl ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
Sl ₂ - Pond Area (m ²)	10	0.02	20	0.04	500	1	20	0.04	500	1
Sl ₃ - Pond Drying	Sometimes	0.5	Annually	0.1	Rarely	1.0	Annually	0.1	Rarely	1.0
Sl ₄ - Water Quality	Poor	0.33	Bad	0.01	Moderate	0.67	Bad	0.01	Moderate	0.67
Sl ₅ - Shoreline Shade (1m from the shore) (%)	10	1	0	1	5	1	0	1	5	1
Sl ₆ - Fowl	Absent	1	Absent	1	Minor	0.67	Absent	1	Minor	0.67
Sl ₇ - Fish	Absent	1	Absent	1	Absent	1	Absent	1	Absent	1
Sl ₈ - Pond Count	12	0.98	12+	1	12	0.98	12+	1	12	0.98
Sl ₉ - Terrestrial habitat	Poor	0.33	Poor	0.33	Moderate	0.67	Poor	0.33	Moderate	0.67
Sl ₁₀ - Macrophytes (% of the pond surface area)	0	0.3	0	0.3	10	0.4	0	0.3	10	0.4
Habitat Suitability Index (HSI Score)	0.45		0.29		0.81		0.29		0.81	
Pond Suitability	Poor		Poor		Excellent		Poor		Excellent	

Pond Number	P127		P130		P135		P137		P138	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	875	0.97	10	0.02	30	0.06	400	0.8	30	0.06
SI ₃ - Pond Drying	Sometimes	0.5	Annually	0.1	Annually	0.1	Sometimes	0.5	Annually	0.1
SI ₄ - Water Quality	Moderate	0.67	Bad	0.01	Poor	0.33	Moderate	0.67	Moderate	0.67
SI ₅ - Shoreline Shade (1m from the shore) (%)	30	1	95	0.3	100	0.2	30	1	80	0.6
SI ₆ - Fowl	Absent	1	Absent	1	Absent	1	Minor	0.67	Absent	1
SI ₇ - Fish	Absent	1	Absent	1	Absent	1	Minor	0.33	Absent	1
SI ₈ - Pond Count	5	0.78	5	0.78	10	0.95	10	0.95	6	0.8
SI ₉ - Terrestrial habitat	Moderate	0.67	Poor	0.33	Moderate	0.67	Poor	0.33	Moderate	0.67
SI ₁₀ - Macrophytes (% of the pond surface area)	30	0.6	0	0.3	0	0.3	0	0.3	60	0.9
Habitat Suitability Index (HSI Score)	0.80		0.23		0.39		0.66		0.51	
Pond Suitability	Excellent		Poor		Poor		Average		Below Average	

Pond Number	P139		P145		P149		P152		P152A	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	2000	0.8	150	0.3	36	0.07	50	0.1	18	0.03
SI ₃ - Pond Drying	Never	0.9	Never	0.9	Never	0.9	Never	0.9	Never	0.9
SI ₄ - Water Quality	Moderate	0.67	Poor	0.33	Poor	0.33	Moderate	0.67	Good	1.0
SI ₅ - Shoreline Shade (1m from the shore) (%)	40	1	80	0.6	0	1	40	1	25	1
SI ₆ - Fowl	Minor	0.67	Minor	0.67	Absent	1	Absent	1	Absent	1
SI ₇ - Fish	Possible	0.67	Absent	1	Absent	1	Absent	1	Absent	1
SI ₈ - Pond Count	7	0.85	12	0.98	11	0.97	12+	1	12+	1
SI ₉ - Terrestrial habitat	Moderate	0.67	Moderate	0.67	Poor	0.33	Moderate	0.67	Moderate	0.67
SI ₁₀ - Macrophytes (% of the pond surface area)	10	0.4	10	0.4	10	0.4	70	1	60	0.9
Habitat Suitability Index (HSI Score)	0.74		0.63		0.55		0.73		0.67	
Pond Suitability	Good		Average		Below average		Good		Average	

Pond Number	P152B		P153		P156		P157		P158	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	6	0.03	140	0.28	250	0.5	220	0.44	400	0.8
SI ₃ - Pond Drying	Never	0.9	Never	0.9	Never	0.9	Never	0.9	Never	0.9
SI ₄ - Water Quality	Good	1.0	Good	1.0	Moderate	0.67	Poor	0.33	Moderate	0.67
SI ₅ - Shoreline Shade (1m from the shore) (%)	0	1	50	1	70	0.8	40	1	0	1
SI ₆ - Fowl	Absent	1	Minor	0.67	Minor	0.67	Absent	1	Absent	1
SI ₇ - Fish	Absent	1	Major	0.01	Absent	1	Possible	0.67	Possible	0.67
SI ₈ - Pond Count	12+	1	12+	1	12+	1	12+	1	12+	1
SI ₉ - Terrestrial habitat	Moderate	0.67	Good	1	Moderate	0.67	Moderate	0.67	Moderate	0.67
SI ₁₀ - Macrophytes (% of the pond surface area)	60	0.9	90	0.9	60	0.9	20	0.5	0	0.3
Habitat Suitability Index (HSI Score)	0.60		0.52		0.79		0.70		0.76	
Pond Suitability	Average		Below average		Excellent		Good		Good	

Pond Number	P161		P163		P163A		P164		P165	
Sl ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
Sl ₂ - Pond Area (m ²)	40	0.08	120	0.24	9	0.01	30000	0	1200	0.92
Sl ₃ - Pond Drying	Sometimes	0.5	Never	0.9	Never	0.9	Never	0.9	Never	0.9
Sl ₄ - Water Quality	Poor	0.33	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67
Sl ₅ - Shoreline Shade (1m from the shore) (%)	40	1	70	0.8	50	1	5	1	0	1
Sl ₆ - Fowl	Minor	0.67	Minor	0.67	Minor	0.67	Major	0.01	Minor	0.67
Sl ₇ - Fish	Absent	1	Absent	1	Absent	1	Minor	0.33	Minor	0.33
Sl ₈ - Pond Count	11	0.97	2	0.52	2	0.52	12+	1	12+	1
Sl ₉ - Terrestrial habitat	Poor	0.33	Moderate	0.67	Moderate	0.67	Good	1	Moderate	0.67
Sl ₁₀ - Macrophytes (% of the pond surface area)	50	0.8	95	0.85	70	1	5	0.35	5	0.35
Habitat Suitability Index (HSI Score)	0.54		0.69		0.55		0.45		0.70	
Pond Suitability	Below average		Average		Below average		Poor		Good	

Pond Number	P166		P168		P170		P172		P175	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	1500	0.87	800	0.98	60	0.12	30	0.06	300	0.6
SI ₃ - Pond Drying	Rarely	1.0	Never	0.9	Sometimes	0.5	Annually	0.1	Sometimes	0.5
SI ₄ - Water Quality	Moderate	0.67	Bad	0.01	Poor	0.33	Poor	0.33	Poor	0.33
SI ₅ - Shoreline Shade (1m from the shore) (%)	20	1	0	1	95	0.3	80	0.6	95	0.3
SI ₆ - Fowl	Minor	0.67	Absent	1	Minor	0.67	Absent	1	Absent	1
SI ₇ - Fish	Absent	1	Absent	1	Absent	1	Absent	1	Absent	1
SI ₈ - Pond Count	10	0.95	6	0.8	5	0.78	3	0.65	4	0.72
SI ₉ - Terrestrial habitat	Good	1	Moderate	0.67	Moderate	0.67	Moderate	0.67	Poor	0.33
SI ₁₀ - Macrophytes (% of the pond surface area)	0	0.3	0	0.3	10	0.4	50	0.8	10	0.4
Habitat Suitability Index (HSI Score)	0.80		0.52		0.49		0.46		0.56	
Pond Suitability	Excellent		Below average		Poor		Poor		Below average	

Pond Number	P176		P177		P178		P182		P184	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	500	1	160	0.32	1200	0.92	200	0.4	240	0.48
SI ₃ - Pond Drying	Annually	0.1	Never	0.9	Never	0.9	Annually	0.1	Sometimes	0.5
SI ₄ - Water Quality	Poor	0.33	Moderate	0.67	Moderate	0.67	Moderate	0.67	Poor	0.33
SI ₅ - Shoreline Shade (1m from the shore) (%)	85	0.5	0	1	0	1	95	0.3	0	1
SI ₆ - Fowl	Minor	0.67	Absent	1	Minor	0.67	Absent	1	Minor	0.67
SI ₇ - Fish	Absent	1	Absent	1	Major	0.01	Absent	1	Absent	1
SI ₈ - Pond Count	9	0.92	10	0.95	9	0.92	6	0.8	6	0.8
SI ₉ - Terrestrial habitat	Good	1	Poor	0.33	Moderate	0.67	Good	1	Poor	0.33
SI ₁₀ - Macrophytes (% of the pond surface area)	3	0.33	95	0.85	50	0.8	10	0.4	10	0.4
Habitat Suitability Index (HSI Score)	0.57		0.74		0.53		0.55		0.60	
Pond Suitability	Below average		Good		Below average		Below average		Average	

Pond Number	P188		P190		P203		P205		P207	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	300	0.6	800	0.98	450	0.9	18	0.03	16	0.03
SI ₃ - Pond Drying	Sometimes	0.5	Never	0.9	Rarely	1.0	Annually	0.1	Sometimes	0.5
SI ₄ - Water Quality	Moderate	0.67	Poor	0.33	Poor	0.33	Poor	0.33	Poor	0.33
SI ₅ - Shoreline Shade (1m from the shore) (%)	5	1	5	1	20	1	0	1	80	0.6
SI ₆ - Fowl	Absent	1	Minor	0.67	Minor	0.67	Absent	1	Minor	0.67
SI ₇ - Fish	Absent	1	Possible	0.67	Absent	1	Absent	1	Absent	1
SI ₈ - Pond Count	5	0.78	5	0.78	11	0.97	12+	1	9	0.92
SI ₉ - Terrestrial habitat	Moderate	0.67	Moderate	0.67	Poor	0.33	Poor	0.33	Moderate	0.67
SI ₁₀ - Macrophytes (% of the pond surface area)	95	0.85	0	0.3	5	0.35	10	0.4	10	0.4
Habitat Suitability Index (HSI Score)	0.79		0.68		0.68		0.42		0.47	
Pond Suitability	Good		Average		Average		Poor		Poor	

Pond Number	P208		P212		P216		P217		P218	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	140	0.28	440	0.88	440	0.88	60	0.12	70	0.14
SI ₃ - Pond Drying	Annually	0.1	Never	0.9	Never	0.9	Sometimes	0.5	Sometimes	0.5
SI ₄ - Water Quality	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67
SI ₅ - Shoreline Shade (1m from the shore) (%)	100	0.2	40	1	30	1	95	0.3	0	1
SI ₆ - Fowl	Absent	1	Minor	0.67	Minor	0.67	Absent	1	Absent	1
SI ₇ - Fish	Absent	1	Possible	0.67	Absent	1	Absent	1	Absent	1
SI ₈ - Pond Count	12+	1	9	0.92	12+	1	12	0.98	12+	1
SI ₉ - Terrestrial habitat	Good	1	Moderate	0.67	Moderate	0.67	Moderate	0.67	Poor	0.33
SI ₁₀ - Macrophytes (% of the pond surface area)	30	0.6	10	0.4	80	1	10	0.4	40	0.7
Habitat Suitability Index (HSI Score)	0.54		0.75		0.87		0.56		0.64	
Pond Suitability	Below average		Good		Excellent		Below average		Average	




Pond Number	P219		P220		P221		P222		P309	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	140	0.28	380	0.76	35	0.07	120	0.24	1500	0.87
SI ₃ - Pond Drying	Never	0.9	Never	0.9	Sometimes	0.5	Rarely	1.0	Never	0.9
SI ₄ - Water Quality	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67
SI ₅ - Shoreline Shade (1m from the shore) (%)	40	1	5	1	80	0.6	10	1	5	1
SI ₆ - Fowl	Absent	1	Minor	0.67	Absent	1	Absent	1	Major	0.01
SI ₇ - Fish	Minor	0.33	Absent	1	Absent	1	Absent	1	Possible	0.67
SI ₈ - Pond Count	12+	1	12+	1	12+	1	12+	1	12+	1
SI ₉ - Terrestrial habitat	Moderate	0.67	Good	1	Moderate	0.67	Moderate	0.67	Good	1
SI ₁₀ - Macrophytes (% of the pond surface area)	50	0.8	30	0.6	75	1	10	0.4	0	0.3
Habitat Suitability Index (HSI Score)	0.70		0.84		0.63		0.73		0.50	
Pond Suitability	Good		Excellent		Average		Good		Below average	




Pond Number	P312		P313		P314		P315		P316	
Sl ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
Sl ₂ - Pond Area (m ²)	400	0.8	2000	0.8	160	0.32	100	0.2	2000	0.8
Sl ₃ - Pond Drying	Annually	0.1	Annually	0.1	Annually	0.1	Annually	0.1	Annually	0.1
Sl ₄ - Water Quality	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67
Sl ₅ - Shoreline Shade (1m from the shore) (%)	5	1	0	1	0	1	0	1	0	1
Sl ₆ - Fowl	Minor	0.67	Minor	0.67	Minor	0.67	Minor	0.67	Minor	0.67
Sl ₇ - Fish	Absent	1	Absent	1	Absent	1	Absent	1	Absent	1
Sl ₈ - Pond Count	12+	1	12+	1	12+	1	12+	1	12+	1
Sl ₉ - Terrestrial habitat	Poor	0.33	Poor	0.33	Poor	0.33	Poor	0.33	Poor	0.33
Sl ₁₀ - Macrophytes (% of the pond surface area)	5	0.35	5	0.35	0	0.3	5	0.35	5	0.35
Habitat Suitability Index (HSI Score)	0.58		0.58		0.52		0.50		0.58	
Pond Suitability	Below average		Below average		Below average		Below average		Below average	




Pond Number	P402		P403		P404		P405		P407	
SI ₁ - Location	A	1.0	A	1.0	A	1.0	A	1.0	A	1.0
SI ₂ - Pond Area (m ²)	350	0.7	50000	0	12000	0	9000	0	70	0.14
SI ₃ - Pond Drying	Rarely	1.0	Never	0.9	Never	0.9	Never	0.9	Never	0.9
SI ₄ - Water Quality	Moderate	0.67	Good	1.0	Moderate	0.67	Moderate	0.67	Moderate	0.67
SI ₅ - Shoreline Shade (1m from the shore) (%)	60	0.9	1	1	5	1	15	1	50	1
SI ₆ - Fowl	Major	0.01	Major	0.01	Major	0.01	Major	0.01	Absent	1
SI ₇ - Fish	Minor	0.33	Major	0.01	Major	0.01	Major	0.01	Minor	0.33
SI ₈ - Pond Count	12+	1	12+	1	12+	1	12+	1	7	0.85
SI ₉ - Terrestrial habitat	Moderate	0.67	Poor	0.33	Poor	0.33	Moderate	0.67	Good	1
SI ₁₀ - Macrophytes (% of the pond surface area)	0	0.3	20	0.5	25	0.55	5	0.35	0	0.3
Habitat Suitability Index (HSI Score)	0.44		0.29		0.28		0.29		0.61	
Pond Suitability	Poor		Poor		Poor		Poor		Average	

Appendix C: Site Photographs



Photographs have been taken for the majority of all ponds surveyed. In some instances, they were taken during earlier scoping visits and prior to the eDNA surveys being carried out, by which time some ponds had dried out. Photographs were not taken for a handful of ponds, some of which were dry at the time of survey.



Pond Reference.	Photograph
P5	
P6	
P7	



Pond Reference.	Photograph
P8	
P9	
P10	




Pond Reference.	Photograph
P11	 A photograph of a small, dark pond surrounded by dense green vegetation and tall grasses. The pond is situated in a natural, somewhat enclosed area.
P12	 A photograph of a small, shallow pond with a muddy bottom, surrounded by tall grasses and dense green foliage. The pond is located in a grassy field.
P13	 A photograph of a small, shallow pond with a muddy bottom, surrounded by tall grasses and dense green foliage. The pond is located in a grassy field.




Pond Reference.	Photograph
P14	
P15	




Pond Reference.	Photograph
P16	
P107	Dry - photograph not taken.
P108	




Pond Reference.	Photograph
P109	
P110	





Pond Reference.	Photograph
P111	 A photograph of a pond area. In the background, there is a building with a dark, tiled roof and a tall chimney. The foreground and middle ground are filled with dense green vegetation, including tall grasses and yellow flowers. The sky is overcast.
P112	 A photograph of a pond surrounded by tall grasses. The water in the pond is covered with green lily pads. The background shows a line of trees under a blue sky with some clouds.




Pond Reference.	Photograph
P113	
P114	
P115	




Pond Reference.	Photograph
P116	
P119	
P122	
P126	Dry – photograph not taken.




Pond Reference.	Photograph
P127	
P128	Dry – photograph not taken.
P130	Photograph not taken.
P134	
P135	




Pond Reference.	Photograph
P137	
P138	
P139	




Pond Reference.	Photograph
P143	
P145	
P149	
P152	
P152A	Photograph not taken.




Pond Reference.	Photograph
P152B	
P153	Photograph not taken.
P154	Photograph not taken.
P155	
P156	




Pond Reference.	Photograph
P157	
P158	
P159	Dry - photograph not taken.
P160	




Pond Reference.	Photograph
P161	
P163	
P163A	Photograph not taken.
P164	




Pond Reference.	Photograph
P165	
P166	
P167	Dry - photograph not taken.
P168	
P169	Dry - photograph not taken.






Pond Reference.	Photograph
P170	
P172	
P173	Dry - photograph not taken.
P174	Dry - photograph not taken.
P175	





Pond Reference.	Photograph
P176	
P177	
P178	
P179	Dry - photograph not taken.

Pond Reference.	Photograph
P180	
P181	Dry - photograph not taken.
P182	Photograph not taken.
P183	
P184	




Pond Reference.	Photograph
P185	
P186	
P187	





Pond Reference.	Photograph
P188	
P189	
P190	





Pond Reference.	Photograph
P191	
P192	
P199	
P200	
P201	




Pond Reference.	Photograph
P202	
P203	
P204	
P205	





Pond Reference.	Photograph
P206	
P207	
P208	



Pond Reference.	Photograph
P212	
P214	
P216	

Pond Reference.	Photograph
P217	
P218	
P219	
P220	

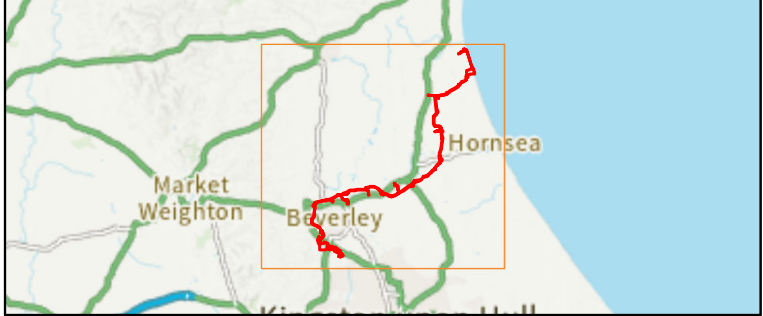
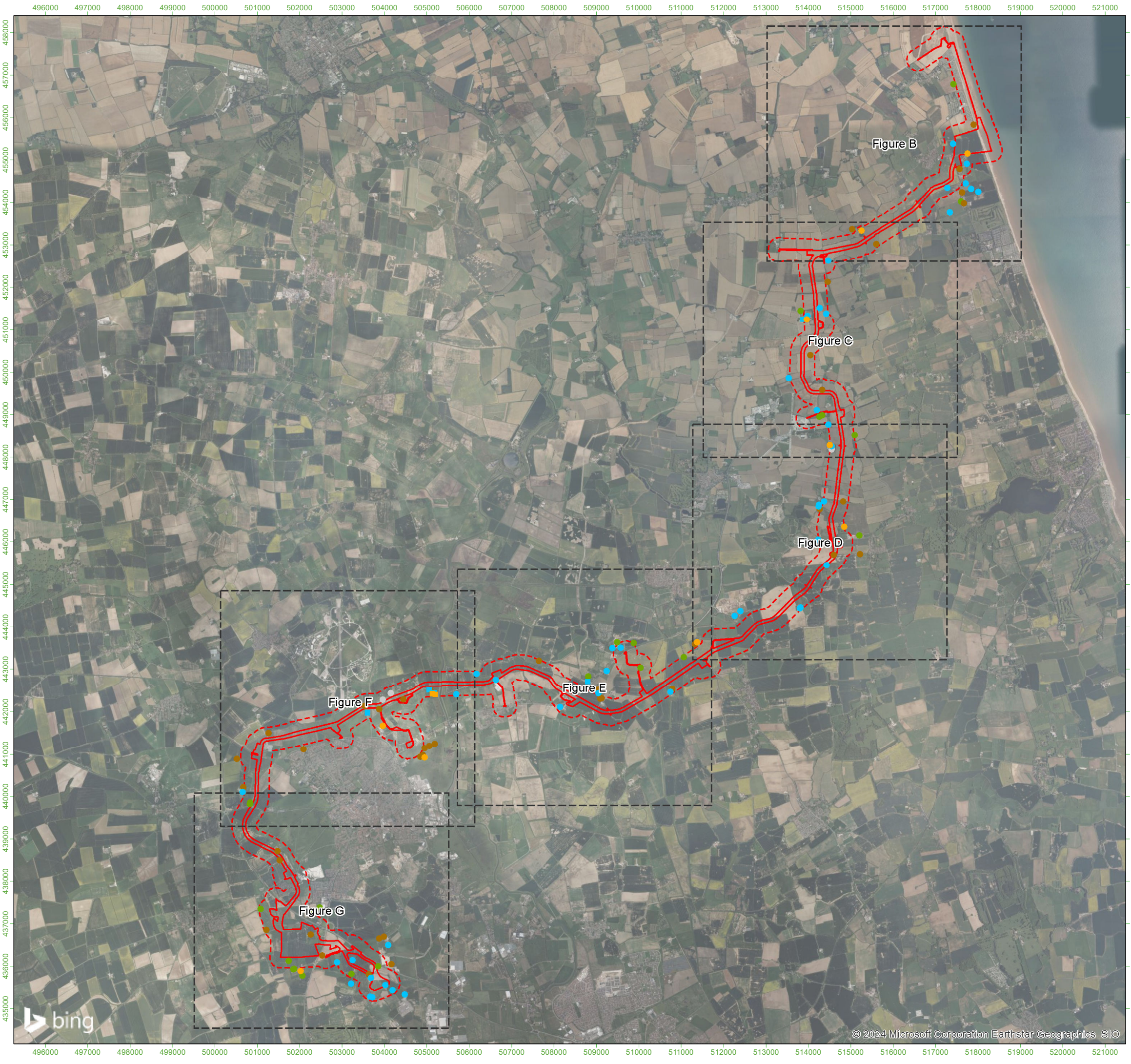
Pond Reference.	Photograph
P221	
P222	
P309	
P312	

Pond Reference.	Photograph
P313	
P314	
P315	

Pond Reference.	Photograph
P316	
P319	
P400	Dry – photograph not taken.
P401	Dry – photograph not taken.
P402	
P403	

Pond Reference.	Photograph
P404	 A photograph of a pond with clear, blue water reflecting the sky and surrounding greenery. The pond is surrounded by lush vegetation and trees under a bright, partly cloudy sky.
P405	 A photograph of a pond with murky, brownish water. The pond is surrounded by dense green trees and bushes, with a concrete wall visible on the right side.
P406	Photograph not taken.
P407	Photograph not taken.

Appendix D: Survey Maps



Pond Survey Results	
	Onshore Development Area
	Onshore Survey Area (250m Buffer)
	eDNA result – positive (2022)
	eDNA result – positive (2023)
	eDNA result – negative (2022)
	eDNA result – negative (2023)
	Pond - dry
	eDNA survey - not possible (2023)
	Pond - access not granted
	Pond - inaccessible

Great Crested Newt HSI Survey Information:
Ponds where a HSI survey has been conducted have the pond reference number underlined.

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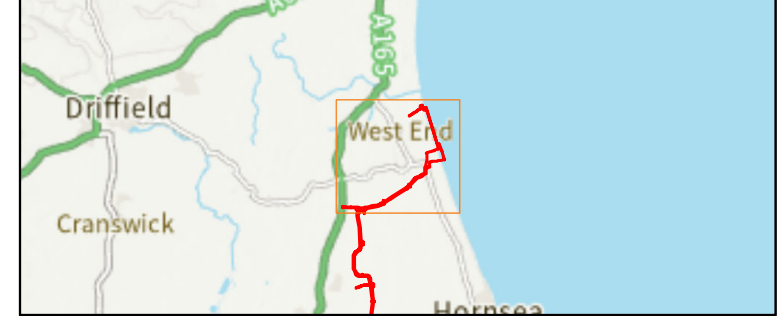
PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Figure 1A. GCN Survey Status Results - Section A

VER	DATE	REMARKS	Drawn	Checked
3.0	04/04/24	GCN Survey - Overview	MP	JD

DRAWING NUMBER: **PeakEcology/Bats/Ponds/Status**

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:87,000



Pond Survey Results

	Onshore Development Area
	Onshore Survey Area (250m Buffer)
	eDNA result – positive (2022)
	eDNA result – positive (2023)
	eDNA result – negative (2022)
	eDNA result – negative (2023)
	Pond - dry
	eDNA survey - not possible (2023)
	Pond - access not granted
	Pond - inaccessible

Great Crested Newt HSI Survey Information:
 Ponds where a HSI survey has been conducted have the pond reference number underlined.

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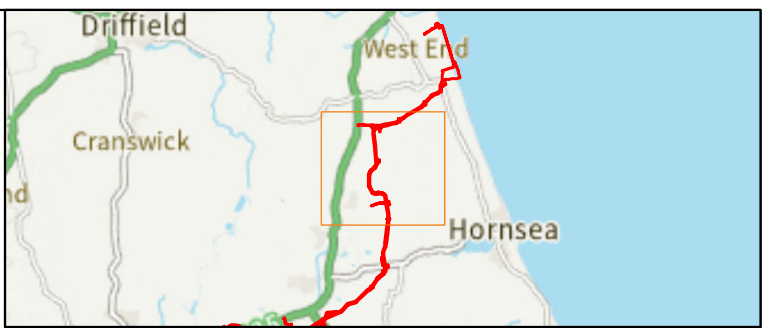
PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Figure 1B. GCN Survey Status Results - Section B

VER	DATE	REMARKS	Drawn	Checked
3.0	04/04/24	GCN Survey - Section 1	MP	JD

DRAWING NUMBER: **PeakEcology/Bats/Ponds/Status**

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:20,000



Pond Survey Results

	Onshore Development Area
	Onshore Survey Area (250m Buffer)
	eDNA result – positive (2022)
	eDNA result – positive (2023)
	eDNA result – negative (2022)
	eDNA result – negative (2023)
	Pond - dry
	eDNA survey - not possible (2023)
	Pond - access not granted
	Pond - inaccessible

Great Crested Newt HSI Survey Information:
Ponds where a HSI survey has been conducted have the pond reference number underlined.

Source: Ordnance Survey © Crown copyright 2024, All rights reserved. License Number 100049837.

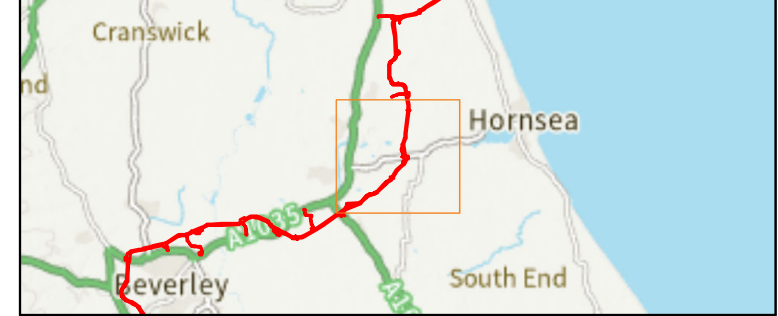
PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Figure 1C. GCN Survey Status Results - Section C

VER	DATE	REMARKS	Drawn	Checked
3.0	04/04/24	GCN Survey - Section 2	MP	JD

DRAWING NUMBER: **PeakEcology/Bats/Ponds/Status**

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:20,000



Pond Survey Results	
	Onshore Development Area
	Onshore Survey Area (250m Buffer)
	eDNA result – positive (2022)
	eDNA result – positive (2023)
	eDNA result – negative (2022)
	eDNA result – negative (2023)
	Pond - dry
	eDNA survey - not possible (2023)
	Pond - access not granted
	Pond - inaccessible

Great Crested Newt HSI Survey Information:
Ponds where a HSI survey has been conducted have the pond reference number underlined.

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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Figure 1D. GCN Survey Status Results - Section D

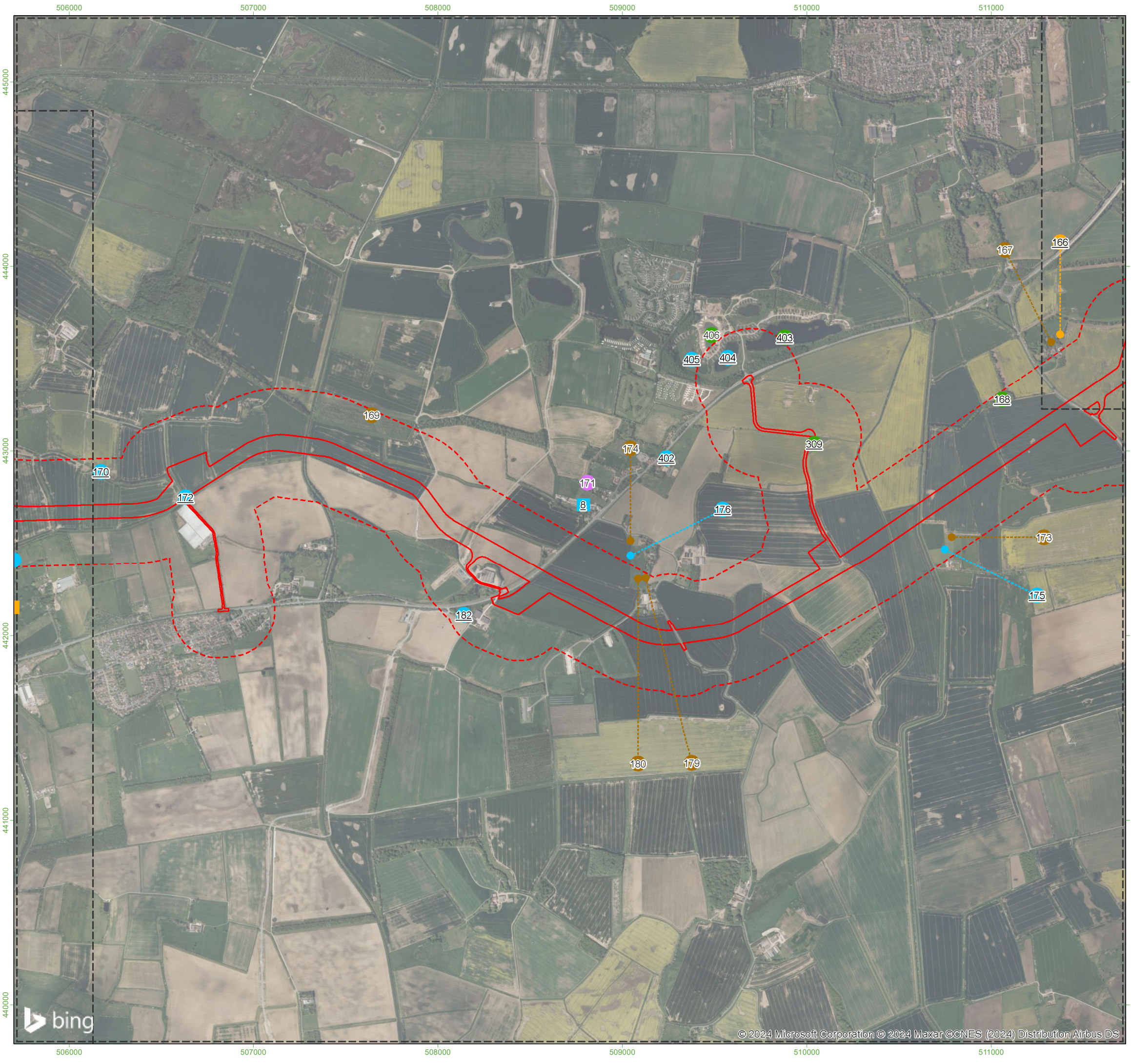
VER	DATE	REMARKS	Drawn	Checked
3.0	04/04/24	GCN Survey - Section 3	MP	JD

DRAWING NUMBER: **PeakEcology/Bats/Ponds/Status**

ECOLOGICAL CONSULTANTS

Arden House,
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Bakewell,
Derbyshire,
DE45 1GT.
www.peakecology.co.uk

DATUM	OSGB
PROJECTION	BNG
PLOT SIZE	A3
SCALE	1:20,000



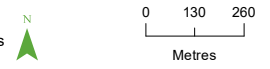
Pond Survey Results

	Onshore Development Area
	Onshore Survey Area (250m Buffer)
	eDNA result – positive (2022)
	eDNA result – positive (2023)
	eDNA result – negative (2022)
	eDNA result – negative (2023)
	Pond - dry
	eDNA survey - not possible (2023)
	Pond - access not granted
	Pond - inaccessible

Great Crested Newt HSI Survey Information:

Ponds where a HSI survey has been conducted have the pond reference number underlined.

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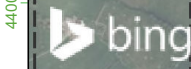
PROJECT TITLE
DOGGER BANK SOUTH

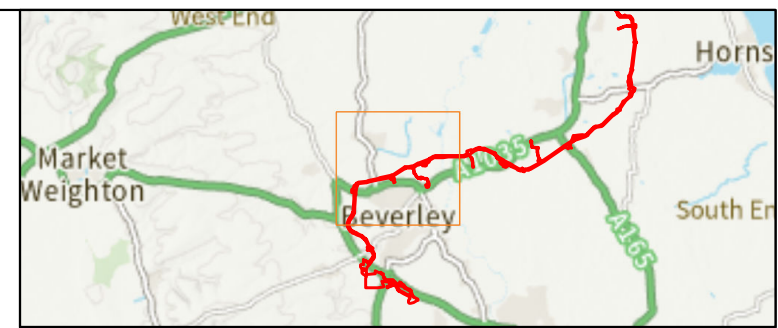
DRAWING TITLE
Figure 1E. GCN Survey Status Results - Section E

VER	DATE	REMARKS	Drawn	Checked
3.0	04/04/24	GCN Survey - Section 4	MP	JD

DRAWING NUMBER: **PeakEcology/Bats/Ponds/Status**

 peakecology LIMITED ECOLOGICAL CONSULTANTS Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
	PROJECTION	BNG
	PLOT SIZE	A3
	SCALE	1:20,000





Pond Survey Results

	Onshore Development Area
	Onshore Survey Area (250m Buffer)
	eDNA result – positive (2022)
	eDNA result – positive (2023)
	eDNA result – negative (2022)
	eDNA result – negative (2023)
	Pond - dry
	eDNA survey - not possible (2023)
	Pond - access not granted
	Pond - inaccessible

Great Crested Newt HSI Survey Information:
Ponds where a HSI survey has been conducted have the pond reference number underlined.

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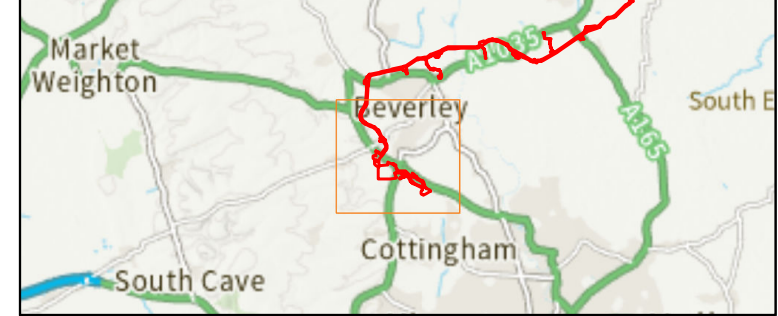
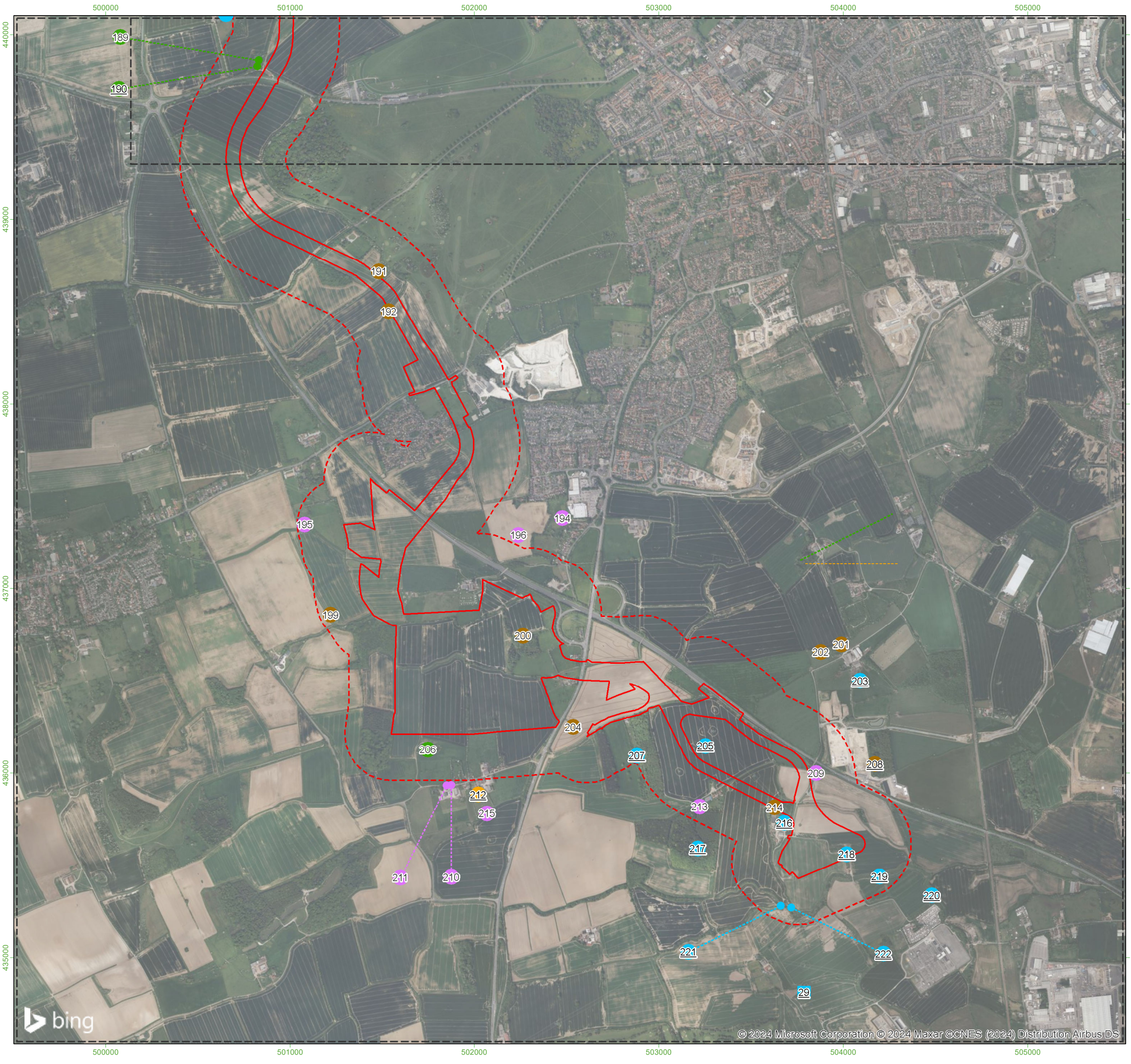
PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Figure 1F. GCN Survey Status Results - Section F

VER	DATE	REMARKS	Drawn	Checked
3.0	04/04/24	GCN Survey - Section 5	MP	JD

DRAWING NUMBER: **PeakEcology/Bats/Ponds/Status**

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:20,000



Pond Survey Results

	Onshore Development Area
	Onshore Survey Area (250m Buffer)
	eDNA result – positive (2022)
	eDNA result – positive (2023)
	eDNA result – negative (2022)
	eDNA result – negative (2023)
	Pond - dry
	eDNA survey - not possible (2023)
	Pond - access not granted
	Pond - inaccessible

Great Crested Newt HSI Survey Information:
Ponds where a HSI survey has been conducted have the pond reference number underlined.

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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Figure 1G. GCN Survey Status Results - Section G

VER	DATE	REMARKS	Drawn	Checked
3.0	04/04/24	GCN Survey - Section 6	MP	JD

DRAWING NUMBER: **PeakEcology/Bats/Ponds/Status**

 ECOLOGICAL CONSULTANTS Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
	PROJECTION	BNG
	PLOT SIZE	A3
	SCALE	1:20,000

