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AWEL Y MÔR OFFSHORE WIND FARM

Great Crested Newt (GCN) Survey Report

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1.0 Introduction

Awel y Môr Offshore Wind Farm (AyM) is a Nationally Significant Infrastructure Project (NSIP). An Environmental Impact Assessment (EIA) is being undertaken and an Environmental Statement (ES) will be provided as part of a Development Consent Order (DCO) application under the Planning Act 2008.

SLR Consulting was commissioned by GoBe Consultants, on behalf of Awel y Môr Offshore Wind Ltd (The Applicant), in May 2020 to undertake the onshore ecological work necessary to inform the EIA. This report provides details of the surveys for great crested newt *Triturus cristatus* (GCN).

As AyM progresses, the emerging scheme design will continue to be refined and so the precise locations and final extent of the proposed scheme are subject to change. Therefore, the scheme details presented in this report may vary from those that are ultimately presented within the ES, but the survey area includes all areas currently under consideration at the time of survey.

1.1 Background

An EIA Scoping Report was prepared in accordance with Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and Regulation 6 of the Marine Works (Environmental Impact Assessment) Regulations 2007. The EIA Scoping Report was submitted to the Planning Inspectorate (PINS) in June 2020. Within the EIA Scoping Report, full details were provided as to the proposed approach for ecological survey and assessment. An EIA Scoping Opinion was provided by PINS in response to the EIA Scoping Report, in July 2020. Comments made in the EIA Scoping Opinion have been taken into account within this report, where relevant. Both documents are available at the PINS website¹; the EIA Scoping Report and EIA Scoping Opinion content is not repeated here, and readers should refer to the original documents for details.

A Preliminary Ecological Appraisal (PEA) was subsequently carried out during the period July to September 2020 for three landfall locations, cable route corridors and substation locations that were under consideration by The Applicant at that time. The PEA was informed by desk-based study and initial habitat survey; the latter based on the interpretation of aerial imagery and ground-based field survey, where access was possible. Findings were presented in a PEA Report ², submitted to the AyM EIA Evidence Plan Expert Topic Group (which includes Natural Resources Wales (NRW), Denbighshire County Council (DCC), the Royal Society for the Protection of Birds (RSPB) and North Wales Wildlife Trust (NWWT)), in February 2021 for information and comment. The PEA Report included detailed survey proposals for GCN.

In line with the recommendations in the PEA Report and following discussion and agreement of the final survey scope during an Expert Topic Group (ETG) meeting on 26th February 2021, the GCN surveys commenced in April 2021.

1.2 Survey Area

The survey extent was agreed with NRW and Denbighshire County Council as part of the EIA Scoping process and during ETG meetings.

Within this report the following terms are used:

¹ <https://infrastructure.planninginspectorate.gov.uk/projects/wales/awel-y-mor-offshore-wind-farm/?ipcsection=docs>

² For a copy of the PEA refer to AyM Offshore Windfarm Environmental Statement Volume 5, Annex 5.1.

- Study Area: This is the 2km zone around the Draft Order Limits (DOL) that were presented at Statutory Consultation.
- Survey Area: Ponds within the 250m zone around the DOL that were presented at Statutory Consultation. In addition, habitat survey information gathered during fieldwork in 2020 and 2021 has been used to identify locations most likely to be used by breeding, hibernating and foraging GCN within 100m of the DOL that were presented at Statutory Consultation.

Areas other than these are specifically described.

1.3 Purpose of this Report

This report presents the findings of the GCN survey. The report seeks to establish baseline conditions and identify habitats that may be important for this species. The assessment of impacts resulting from the onshore elements of AyM is beyond the scope of this report and is covered in the Onshore Biodiversity and Nature Conservation chapter of the ES.

The main objectives of the work were to:

- undertake a habitat suitability index (HSI) assessment at all ponds within 250m of the DOL that were presented at Statutory Consultation;
- determine the presence/absence of GCN at all ponds within 250m of the DOL that were presented at Statutory Consultation;
- determine the size class of any GCN populations within all ponds within 100m of the DOL that were presented at Statutory Consultation;
- determine the GCN population size class in ponds within 250m of permanent habitat loss associated with the proposed onshore substation; and
- evaluate the importance of the GCN populations (if present) in a local, regional and national context.

1.4 Evidence of Technical Competence and Experience

Surveys were undertaken by teams of staff from Enfys Ecology, details of whom are provided below.

Table 1-1
Survey Personnel

Staff Name and Company	NRW GCN Licence Reference
Rhian Hughes	S087351-1
Peter Kneen	S089489/1
Tim Yardley	S087736/1

Staff Name and Company	NRW GCN Licence Reference
Keymar Wake	Accredited Agent on Tim Yardley's S087736/1
Lucy Boyett	Accredited Agent on Tim Yardley's S087736/1
Ash Payne	Accredited Agent on Rhian Hughes' S087351-1
Mandy Cartwright	Accredited S088281/1

Jess Colebrook is the lead author of this report. Jess Colebrook is a Principal Ecologist at SLR Consulting with over 20 years' experience as a professional ecologist. She is a Chartered Environmentalist (CEnv) and a full member of CIEEM (MCIEEM). Jess is leading the onshore ecological work necessary to inform the EIA for the project.

Additional technical support has been provided by Chris Mitchell, a Technical Director at SLR Consulting with over 20 years' experience as a professional ecologist. Chris is a Chartered Ecologist (CEcol) and a full member of CIEEM (MCIEEM).

Bob Edmonds MCIEEM CEnv conducted a review of the report. Bob is a Technical Director at SLR Consulting Ltd with more than 20 years professional experience.

2.0 Methodology

2.1 Desk Study

A desk-based study for protected species records has been undertaken to identify sources of pre-existing ecological data of relevance, that could inform the EIA; this is reported within Table 2-1 of the PEA Report. Note also that subsequent to completion of the PEA Report, an updated data request was made to Cofnod for records within c.2km of the DOL that were presented at Statutory Consultation and all relevant data received up to 8th September 2021 have been included in this report.

In February and March 2021 Cofnod and Matthew Ellis (Natural Resources Wales, NRW) provided additional more detailed data for specific areas within 250m of the DOL that were presented at Statutory Consultation. It included relevant content from the Online Wales GCN Monitoring Database for the following sites (NRW naming convention used). Updated information was provided by Cofnod on 3rd November 2021:

- Bruton Park, Rhyl;
- St Asaph Business Park – Bodelwyddan Substation;
- St Asaph Business Park – Glas Coed;
- St Asaph Business Park – K&C; and
- St Asaph Business Park – WG Land Holdings

These sites are identified on Figure 1 - Great Crested Newt: Pre-existing Records and 2021 Survey Results.

2.2 Field Surveys

As already noted, the scope of the GCN survey was agreed with NRW and Denbighshire County Council as part of the EIA Scoping process and during subsequent ETG meetings. Full details in respect of the surveys undertaken at each pond are included in the table at Appendix 1. Summary detail is provided below.

53 water bodies were initially identified through desk study and aerial photography that may require field survey. Field survey confirmed 5 of these were no longer present/were not ponds such that in total 48 water bodies were subject to survey as follows:

- 11 ponds within 250m of potential temporary habitat loss arising from the onshore elements of AyM were subject to eDNA survey, egg search and HSI assessment.
- 37 ponds within 250m of permanent habitat loss or 100m of temporary habitat loss were subject to HSI assessment plus traditional presence/absence surveys using a minimum of three methods (subject to conditions) including trapping, netting, torching and egg search.
- All surveys were undertaken in accordance survey timings recommended within published good practice

guidance (English Nature, 2001)³ and Natural Resources Wales (undated)⁴, between April to June of 2021. Surveys teams comprised a lead (NRW GCN licence holder or accredited agent) and assistant.

2.2.1 Torchlight survey

Torchlight surveys were undertaken at night and involved a slow walk around the pond perimeters with a 1,000,000 candlepower hand torch to help identify newts in the ponds. This method was used for all 37 of the ponds that did not undergo eDNA sampling.

2.2.2 Bottle trapping

Bottle traps were set around the edge of the ponds at a density of one trap per 2m of accessible shoreline. The number of traps set varied depending on the size of the waterbody and accessibility to the water's edge. Traps were deployed in 33 ponds and were left overnight to be retrieved for assessment the following day.

2.2.3 Netting

On the first visit for each pond, perimeter walks were undertaken, and dip nets were used to sample the open areas of water along the pond margins.

2.2.4 Egg searching

Egg-searching surveys involve inspecting pond vegetation for the presence of newt eggs. Once a GCN egg was found, a waterbody was noted for their presence/absence and no further eggs searches were necessary.

2.2.5 eDNA sampling

Environmental DNA sampling protocol was followed for each water body surveyed and samples analysed by Surescreen Scientifics, Derby, DE7 6DE in accordance with published protocols.

2.2.6 HSI assessment

HSI assessments were undertaken at all ponds. HSI scores are calculated using ten parameters: site location; waterbody area; frequency of waterbody drying; water quality; shade; waterfowl; fish; presence of other waterbodies in the area; terrestrial habitat; and macrophyte communities. Each parameter scores a value of between 0.01 and 1. These scores are then multiplied and 'rooted' to produce a geometric mean score, of between 0 and 1. The following categorical scale is then used to estimate the overall suitability of the water body concerned.

³ English Nature (2001) Great Crested Newt Mitigation Guidelines

⁴ Natural Resources Wales (undated) The use of environmental DNA test for Great crested newt licensing purposes

Table 2-1
HSI Scores

HSI Score	Waterbody Suitability for GCN
<0.5	Poor
0.5-0.59	Below Average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

2.3 Limitations

2.3.1 Desk Study

Desk study data are unlikely to be exhaustive, especially in respect of species, and are intended mainly to set a context for the study. It is therefore possible that GCN occur in locations not identified during the data search.

Field Survey

No significant limitations were recorded and it is considered that the survey objectives have been met. However, specific instances where constraints were encountered are included in the table at Appendix 1.

3.0 Results

3.1 Desk Study

Data provided in November 2021 by Cofnod included peak count data for certain sites as shown on Figure 1, which are as given in the table below.

Table 3-1
Peak Counts for Monitored sites

Site Name	2014	2015	2016	2017	2018	2019	2020	2021
Bruton Park, Rhyl				17	1	108**		
St Asaph Business Park - Bodelwyddan Substation	0	9	11	5	5	3	14	6
St Asaph Business Park - Glas Coed		89	100	26	38	15		15
St Asaph Business Park - K&C				13	6	28		
St Asaph Business Park - WG Land Holdings	78	158	192	91	45	68	38	36

** NB this entry requires verification: 8 GCN are certain. However, when cross checking against the raw data provided by Cofnod, it seems the online database has copied across a spurious eggs count figure of 100.

In addition to the above sites, Cofnod also returned records for GCN in the wider area. The full results of the desk study comprise a very large dataset that is held on GIS; GCN have been recorded at many of the ponds within 2km. In addition to the sites included at Table 3-1, a further 12 ponds in the survey area have historic records for GCN, locations for each are indicated on Figure 1 with details in the table below.

Table 3-2
Ponds with GCN present in year(s) prior to 2021

Pond #	Year(s)
7	2004
8	1993, 2004
11	2004, 2007
12	2004, 2007
13	2004, 2007
17	2000, 2004, 2007
18	2004, 2007
19	2000, 2004, 2007
39	2000, 2001, 2002,

Pond #	Year(s)
	2004, 2008, 2011
41	2008
46	2009
49	2006
54	2009



3.2 Field Survey






Raw data is included at Appendix 1, with lab results from eDNA analysis in Appendix 2.

Refer to Figure 1 which identifies pond locations, GCN presence/absence, HSI scores and peak counts for each pond.






The table below provides summary details for each pond, including a photograph of each.



Table 3-3
2021 Results summary for each pond (Y = yes, N= no, n/a = not surveyed)





Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
1	304795	382980		Poor	n/a	N	N	N	N	n/a
2	303454	382094		Good	n/a	Y	Y	Y	Y	6

Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
3	303474	382068		Below average	n/a	Y	Y	N	Y	1
4	303722	381079		Below average	n/a	N	N	N	N	n/a
5	304077	381024		Average	n/a	N	N	N	N	n/a
6	303304	381019		Good	Y	N	N	N	Y	-
7	303460	380905		Average	n/a	N	N	N	N	n/a

Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
8	303569	380868		Good	n/a	N	Y	Y	Y	1
9	303775	380740		Excellent	Y	N	N	N	Y	-
10	303834	380721		No Pond	n/a	N	N	N	n/a	n/a
11	303135	380716		Good	Y	N	N	N	Y	-
12	303232	380564		Average	n/a	N	N	Y	Y	1






Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
13	303158	380447		Below average	n/a	N	N	N	N	n/a
14	303428	380437		Poor	n/a	N	N	N	N	n/a
15	303325	380410		Poor	n/a	N	N	N	N	n/a
16	303487	380314		Excellent	n/a	N	Y	Y	Y	3
17	303093	380291		Good	n/a	N	Y	N	Y	1





Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
18	303222	380079		Good	n/a	N	N	N	N	n/a
19	303409	380078		Good	n/a	N	N	N	N	n/a
20	302761	380008		Average	n/a	N	N	N	N	n/a
21	303490	379967		Excellent	n/a	N	N	Y	Y	1




Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
22	302925	379762		Poor	n/a	N	N	N	N	n/a
23	302914	379646		Poor	n/a	Y	Y	Y	Y	5
24	302573	379576		-	n/a	N	N	N	N/A	n/a
25	302597	379507		-	n/a	N	N	N	N/A	n/a
26	302527	379312		No Pond	n/a	N	N	N	n/a	n/a

Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
27	302087	378685		Below average	N	N	N	N	N	n/a
28	302100	378647		Excellent	N	N	N	N	N	n/a
29	301501	377785		No Pond	n/a	N	N	N	n/a	n/a
30	301417	377468		No Pond	n/a	N	N	N	n/a	n/a
31	301383	377340		Poor	n/a	N	N	N	N	n/a
32	301178	376999		Poor	N	N	N	N	N	n/a

Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
33	301706	376585		Good	N	N	N	N	N	n/a
34	301778	375695		Poor	N	N	N	N	N	n/a
35	301628	375221		Good	n/a	N	Y	N	Y	1
36	301080	373834		Good	N	N	N	N	N	n/a
37	302128	375209		Excellent	N	N	N	N	N	n/a
38	302010	375164		No Pond	n/a	N	N	N	n/a	n/a

Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
39	301857	374961		Good	n/a	N	N	Y	Y	1
40	300804	374942		Poor	n/a	N	N	N	N	n/a
41	302060	374886		Good	N	N	N	N	N	n/a
42	300753	374823		Poor	n/a	N	N	N	N	n/a
43	300956	374742		Good	n/a	N	Y	N	Y	2

Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
44	300663	374640		Good	n/a	N	N	N	N	n/a
45	300609	374580		Poor	n/a	N	N	N	N	n/a
46	301089	374440		Excellent	n/a	Y	Y	Y	Y	1
47	300600	374326		Below average	n/a	Y	N	N	Y	egg only
48	300495	374153		Average	n/a	Y	Y	Y	Y	3

Pond #	Easting	Northing	Photo	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN present	Peak Count
49	300911	374147		Average	n/a	N	N	N	N	n/a
50	302351	374027		Not surveyed	n/a	N	N	N	n/a	n/a
51	301078	373855		Excellent	n/a	N	N	Y	Y	1
52	301080	373834		Good	n/a	N	N	Y	Y	2
53	302816	379688		Average	n/a	N	N	N	N	n/a
54	301032	374523		Below average	n/a	N	Y	Y	Y	2

4.0 Discussion & Evaluation of Results

The tables below summarise the findings for those ponds where GCN are present. Those in bold type also have prior records provided by Cofnod.

Table 4-1
Ponds with GCN present in 2021 (Y = yes, N = no, n/a = not surveyed)

Pond #	HSI	GCN eDNA	GCN Egg	GCN female	GCN male	GCN Breeding (i.e. males eggs or females recorded)	Peak Count
2	Good	n/a	Y	Y	Y	Y	6
3	Below average	n/a	Y	Y	N	Y	1
6	Good	Y	N	N	N	N	-
8	Good	n/a	N	Y	Y	Y	1
9	Excellent	Y	N	N	N	N	-
11	Good	Y	N	N	N	N	-
12	Average	n/a	N	N	Y	N	1
16	Excellent	n/a	N	Y	Y	Y	3
17	Good	n/a	N	Y	N	N	1
21	Excellent	n/a	N	N	Y	N	1
23	Poor	n/a	Y	Y	Y	Y	5
35	Good	n/a	N	Y	N	N	1
39	Good	n/a	N	N	Y	N	1
43	Good	n/a	N	Y	N	N	2
46	Excellent	n/a	Y	Y	Y	Y	1
47	Below average	n/a	Y	N	N	Y	egg only
48	Average	n/a	Y	Y	Y	Y	3
51	Excellent	n/a	N	N	Y	N	1
52	Good	n/a	N	N	Y	N	2
54	Below average	n/a	N	Y	Y	Y	2

In addition to the above, ponds 7, 13, 18, 19, 39, 41 and 49 have historically supported GCN. Long-term GCN monitoring data provided by NRW (Table 3.2 above) indicates that GCN population counts fluctuate, even in ponds that are known to support good populations of the species. Fluctuations in numbers of breeding adults at individual ponds is likely to be due to several factors and survey data from 2021 should be interpreted in the context of these fluctuations.

The 2021 GCN survey season was considered to be unusually cold at the start, and dry throughout. It is

considered highly likely that not all breeding adult GCN will have returned to ponds to breed this year. Therefore, it is predicted that the number of ponds with a positive presence and GCN numbers within these ponds are likely to be at the lower end of the scale that would be expected for the distribution and abundance of this naturally fluctuating metapopulation.

4.1 Terrestrial Habitat Assessment

Urban (with the exception of private gardens), cropland and short sward modified grassland habitats are considered to be of low value to GCN at all stages of its lifecycle. All gardens, woodlands, hedgerows, scrub and wetlands within 250m of ponds supporting GCN are considered to be of high value to sheltering, hibernating and foraging GCN, as well as providing routes between ponds and foraging areas. Grassland (excluding modified grassland) and other vegetated habitat is considered to be of moderate value to sheltering and foraging GCN.

It is worth noting that no GCN were incidentally recorded at the artificial refugia installed at the onshore substation location during the Reptile survey⁵. Nor have any GCN been recorded during site investigation work at the onshore substation location, which involved fingertip searches of terrestrial habitats at trench and borehole locations. The searches were conducted by an Ecological Clerk of Works and undertaken in accordance with a European Protected Species Licence Method Statement.

4.2 Great Crested Newt Metapopulations

GCN populations typically occur as a metapopulation, i.e. a group of spatially separated populations which interact at some level across a landscape of breeding ponds and terrestrial habitat. This study has identified four metapopulations within the Survey Area:

Ponds 2 and 3 are isolated from the wider pond network (more than 500m from the next nearest pond) and have a combined peak population that is small (total 7).

Ponds 4 – 26, Pond 53 and the Bruton Park ponds are within 500m of each other are considered to support the same metapopulation. Of these 26 ponds, 16 currently or historically supported GCN. The GCN population present in 2021 is considered to be of medium size (combined peak total 12 from ponds surveyed in 2021, plus 17 for Bruton Park; noting that the last available data from 2019 for Bruton Park is questionable, the next highest peak count has been used instead).

Ponds 35-39 and Pond 41 are within 500m of each other and wider pond network. The A55 is considered to represent a barrier to most, but not all GCN movement, such that the population here is considered reasonably distinct from that south of the A55. The combined peak count at these six ponds, two of which supported GCN in 2021, is 2 individuals, therefore a small population.

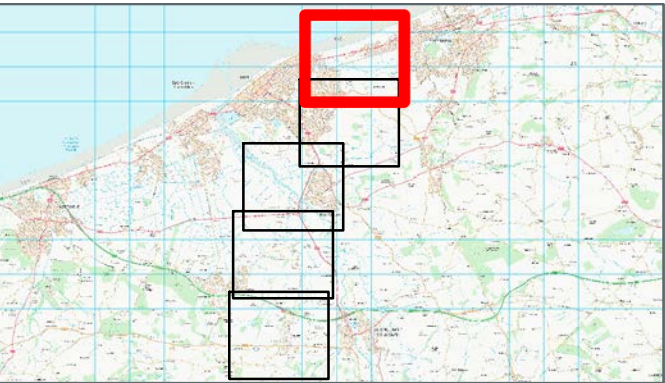
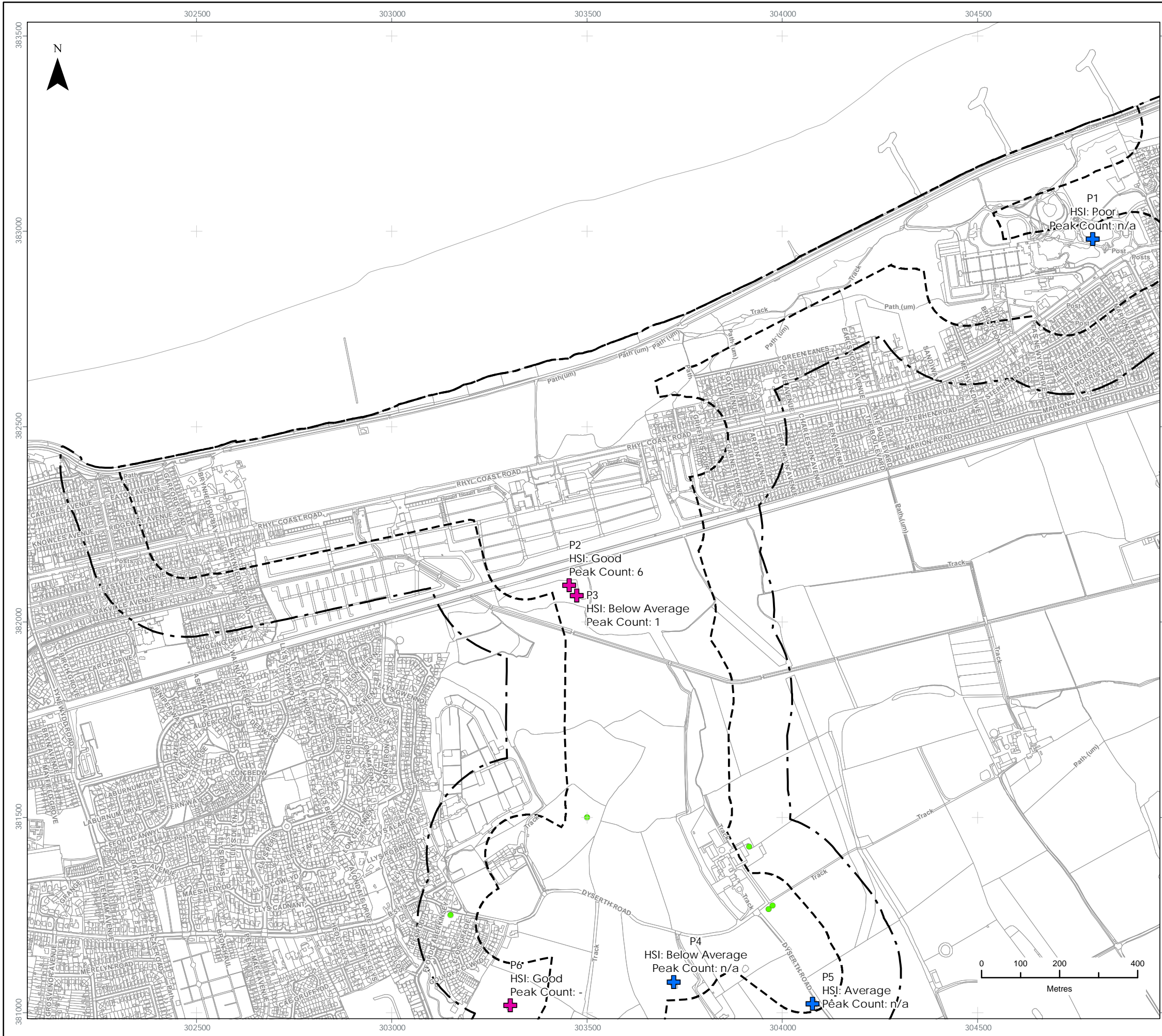
The remaining ponds (40, 42-52, 54, Glascoed Ponds, St Asaph Business Park (SABP) Ponds, Bodelwyddan Ponds, all other ponds within SABP) are considered to support the same metapopulation. The combined peak count for these is more than 100 individuals, and therefore a large sized population. Whilst full survey details for this entire metapopulation are not available for 2021, it seems possible that the SSSI Selection criteria⁶ for an “exceptional site” (a single night count of over 100 individuals) may be met.

⁵ For a copy of the Reptile Survey Report refer to AyM Offshore Windfarm Environmental Statement Volume 5, Annex 5.4.

⁶Section 3.2.2 of JNCC Guidelines for the selection of SSSIs – Reptiles and Amphibians (under revision)
<https://data.jncc.gov.uk/data/765b2344-f86b-4500-8718-dc9ecf9375b6/SSSIs-amp-rep-C15.pdf>

FIGURE 01

Great Crested Newt Pre-existing Records and 2021 Survey Results



LEGEND

- Onshore Infrastructure 100 m Buffer
- Onshore Infrastructure 250 m Buffer
- GCN Present
- GCN Absent
- Pre-2021 GCN Record (Cofnod Data)

Data Source:
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PROJECT TITLE:
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GCN SURVEY REPORT*

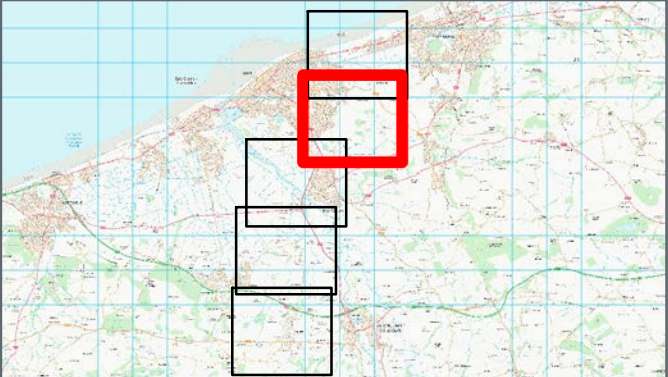
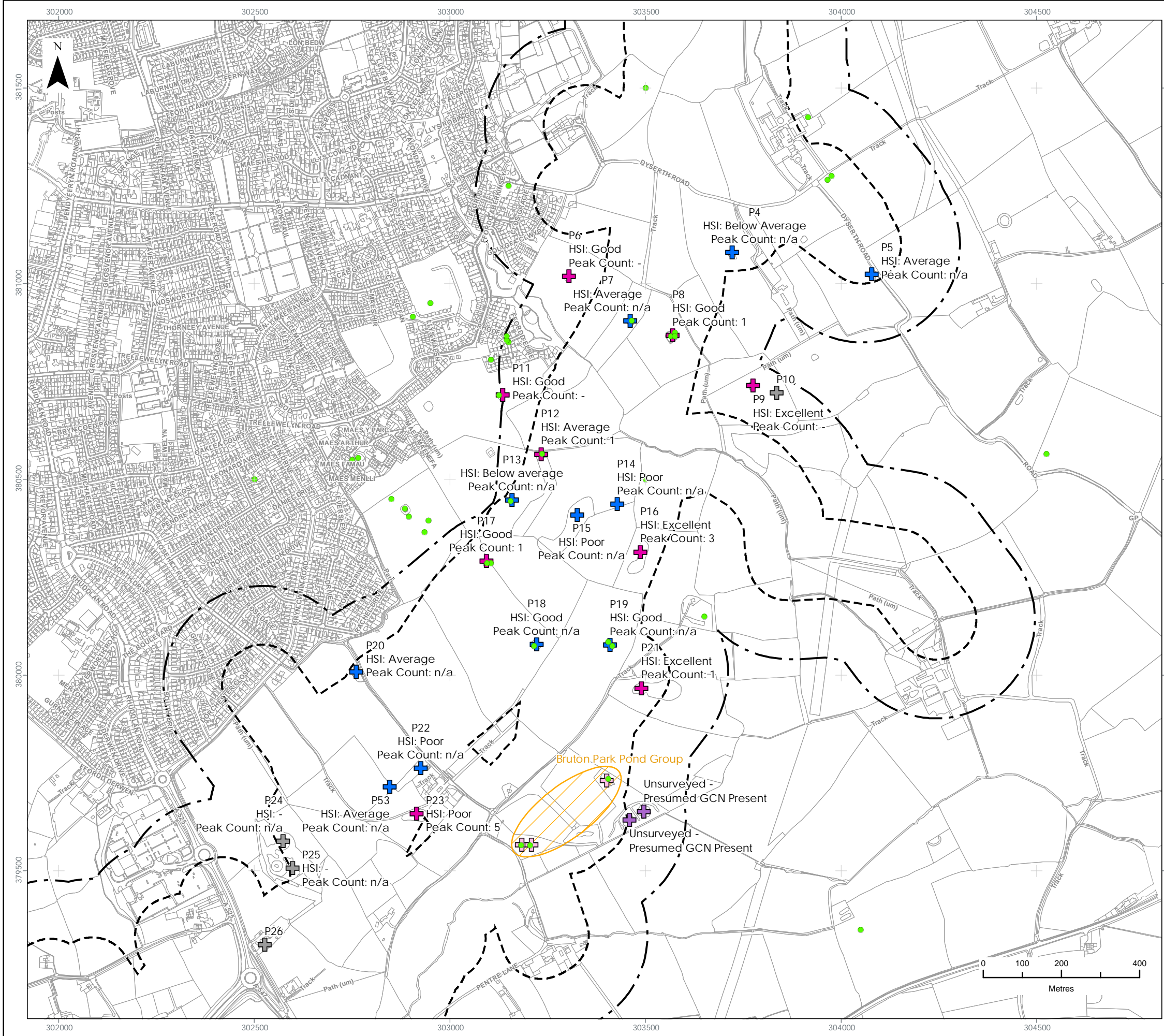
FIGURE TITLE:
**PRE-EXISTING RECORDS AND
GCN SURVEY RESULTS**

VER	DATE	REMARKS	Drawn	Checked
1	02/11/2021	Draft	JRS	JC

FIGURE NUMBER:
FIGURE 1
Page 1 of 5

SCALE: 1:10,000	PLOT SIZE: A3	DATUM: ODN	COORDINATE SYSTEM: British National Grid
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LEGEND

- Onshore Infrastructure 100 m Buffer
- Onshore Infrastructure 250 m Buffer
- GCN Present
- GCN Present (Pre-Existing Data from Cofnod/NRW)
- GCN Present (Pond within 250m of Another with GCN Present)
- GCN Absent
- N/A - Pond Not Surveyed / Pond Not Present at Time of Survey
- Pre-Existing Data from Cofnod/NRW Pond Group
- Pre-2021 GCN Record (Cofnod Data)

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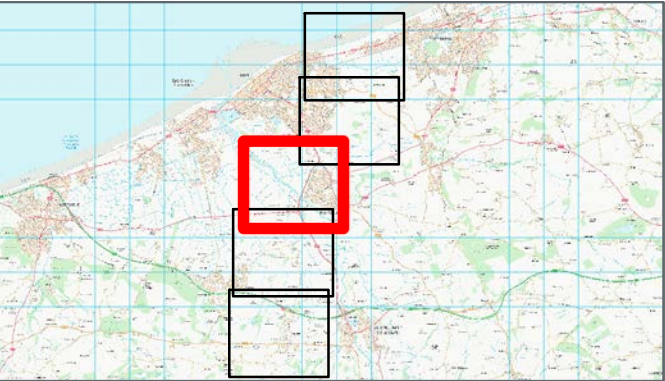
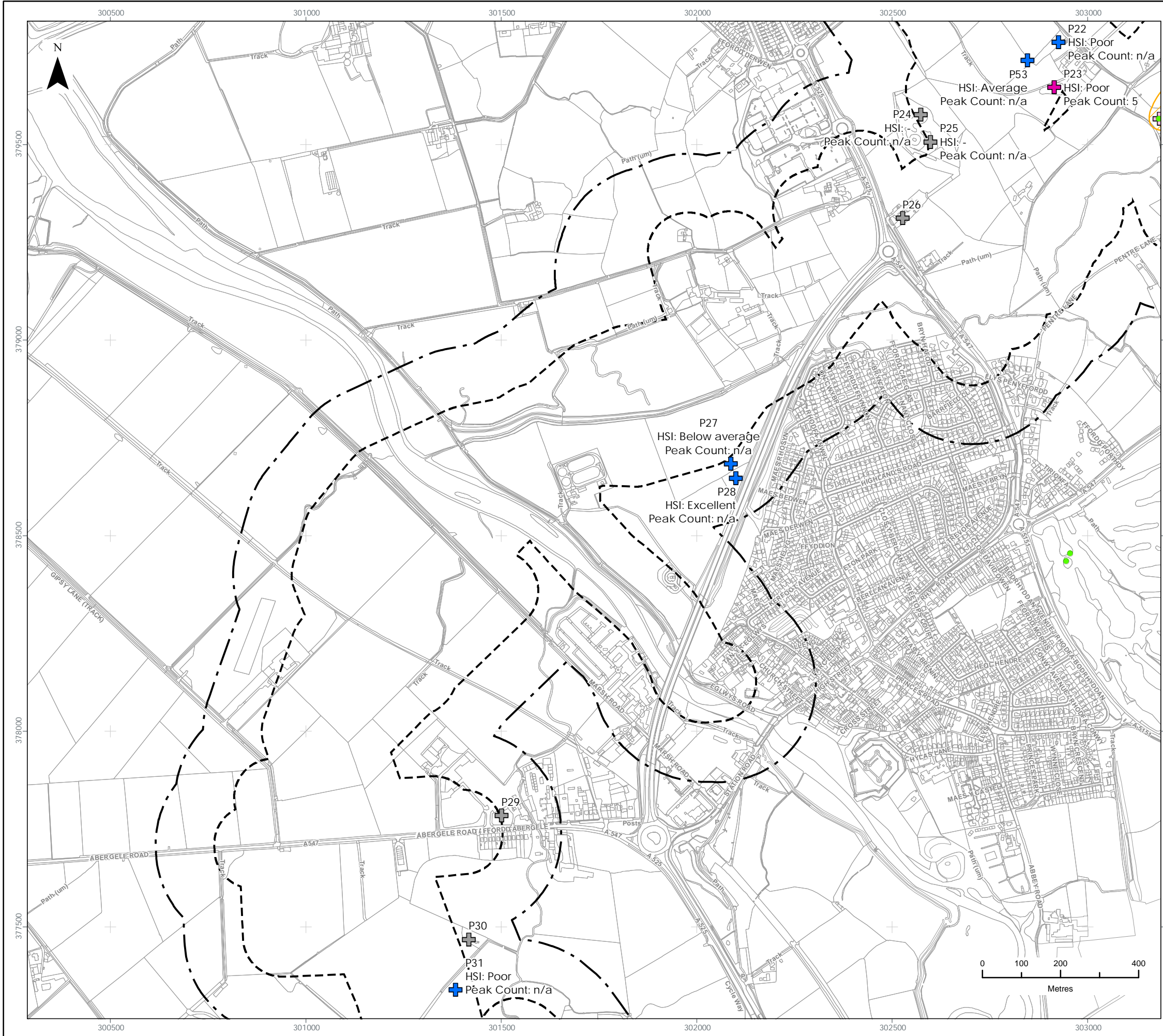
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GCN SURVEY RESULTS**

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FIGURE NUMBER:
FIGURE 1
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SCALE: 1:10,000	PLOT SIZE: A3	DATUM: ODN	COORDINATE SYSTEM: British National Grid
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LEGEND

- Onshore Infrastructure 100 m Buffer
- Onshore Infrastructure 250 m Buffer
- GCN Present
- GCN Present (Pre-Existing Data from Cofnod/NRW)
- GCN Absent
- N/A - Pond Not Surveyed / Pond Not Present at Time of Survey
- Pre-Existing Data from Cofnod/NRW Pond Group
- Pre-2021 GCN Record (Cofnod Data)

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FIGURE TITLE:
**PRE-EXISTING RECORDS AND
GCN SURVEY RESULTS**

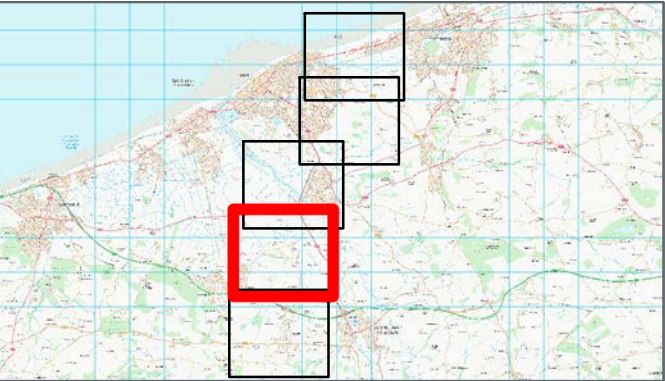
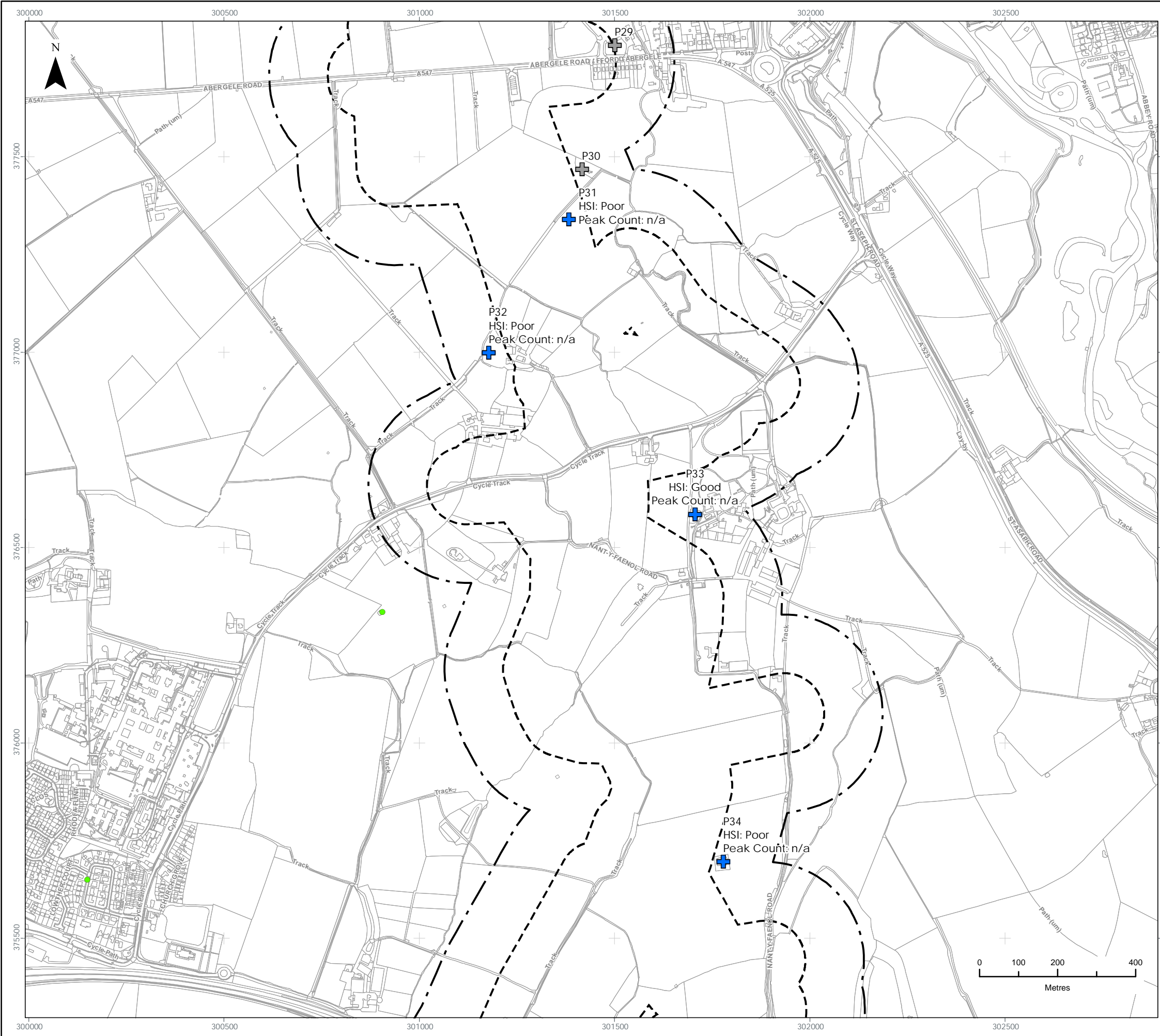
VER	DATE	REMARKS	Drawn	Checked
1	02/11/2021	Draft	JRS	JC

FIGURE NUMBER:

FIGURE 1
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SCALE: 1:10,000	PLOT SIZE: A3	DATUM: ODN	COORDINATE SYSTEM: British National Grid
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Fferm Wynt Alltraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

- Onshore Infrastructure 100 m Buffer
- Onshore Infrastructure 250 m Buffer
- GCN Absent
- N/A - Pond Not Surveyed / Pond Not Present at Time of Survey
- Pre-2021 GCN Record (Cofnod Data)

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GCN SURVEY REPORT*

FIGURE TITLE:
**PRE-EXISTING RECORDS AND
GCN SURVEY RESULTS**

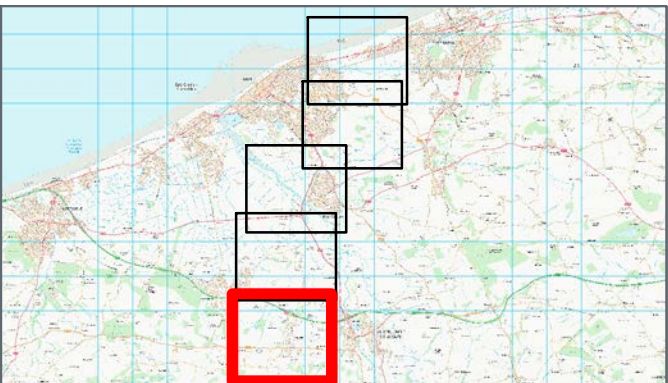
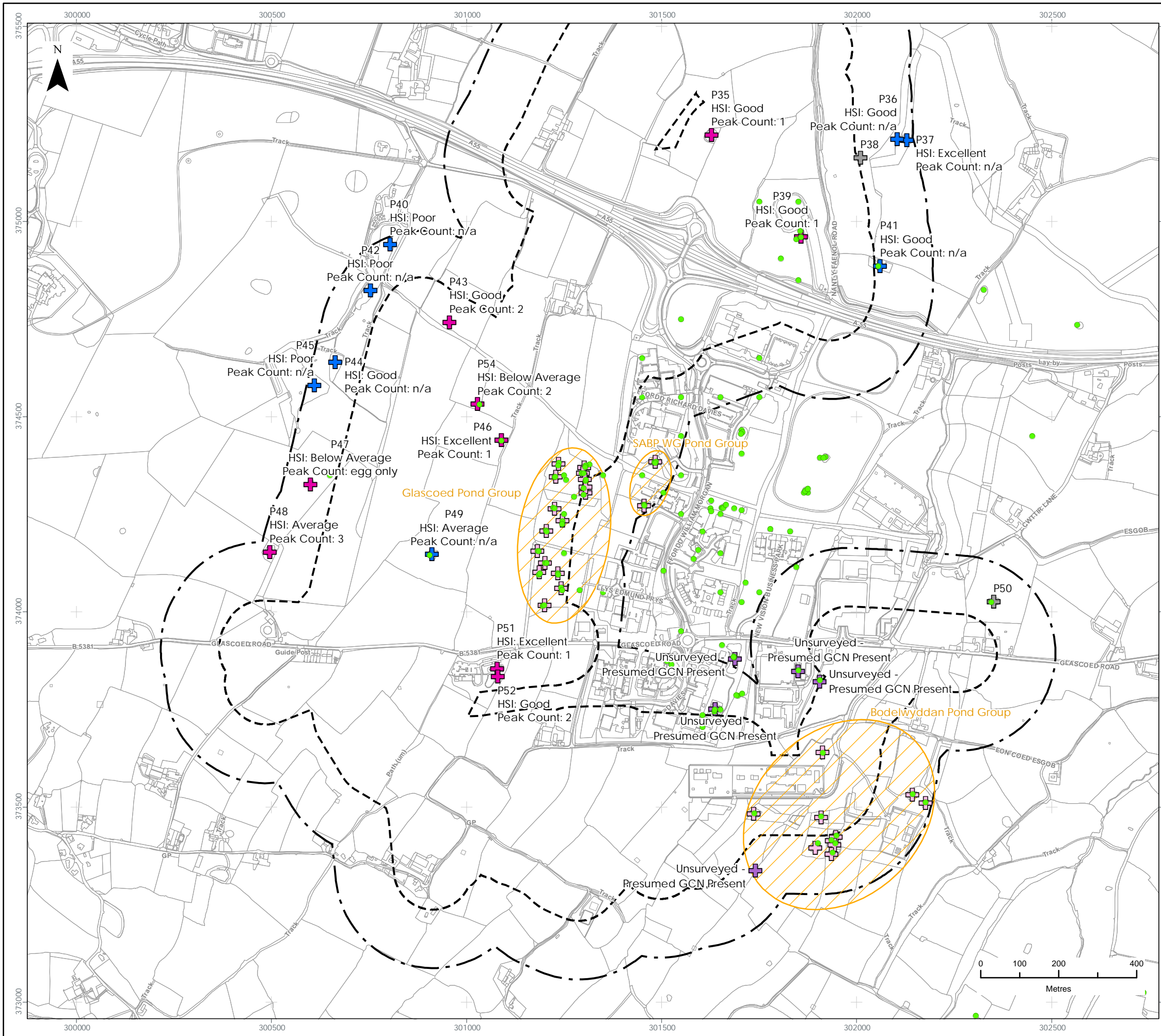
VER	DATE	REMARKS	Drawn	Checked
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FIGURE NUMBER:

FIGURE 1
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SCALE: 1:10,000	PLOT SIZE: A3	DATUM: ODN	COORDINATE SYSTEM: British National Grid
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Fferm Wyrnt Alltraeth
AWEL Y MÔR
Offshore Wind Farm



LEGEND

- Onshore Infrastructure 100 m Buffer
- Onshore Infrastructure 250 m Buffer
- GCN Present
- GCN Present (Pre-Existing Data from Cofnod/NRW)
- GCN Present (Pond within 250m of Another with GCN Present)
- GCN Absent
- N/A - Pond Not Surveyed / Pond Not Present at Time of Survey
- Pre-Existing Data from Cofnod/NRW Pond Group
- Pre-2021 GCN Record (Cofnod Data)

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PROJECT TITLE:
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FIGURE TITLE:
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GCN SURVEY RESULTS**

VER	DATE	REMARKS	Drawn	Checked
1	02/11/2021	Draft	JRS	JC

FIGURE NUMBER:
FIGURE 1
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SCALE: 1:10,000	PLOT SIZE: A3	DATUM: ODN	COORDINATE SYSTEM: British National Grid
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APPENDIX 1

Survey Raw Data

HSI RAW DATA

Pond #	Easting	Northing	Date of HSI Assessment	Lead Surveyor Initials	Location	Area m2	Drying	Water Quality	Shade %	Birds	Fish	Ponds 1km	Terrestrial	Plant %	HSI Score	HSI Rating	Additional notes
1	304794.9	382980.1	14/04/2021	KW	A	5000	Never	Moderate	25	Minor	Major	0	Poor	15	0.37	Poor	Public 'lake' near the coast, lots of large fish; lots of litter.
2	303454	382094.5	14/04/2021	KW	A	80	Rare	Good	5	Minor	Possible	6	Good	60	0.71	Good	Nice pond, next to pond 3, lots of egg laying vegetation. public park and fence broken. Empty drinks bottles and tree saplings been chucked in ponds. Lots of dog walkers
3	303473.8	382067.8	14/04/2021	KW	A	30	Annual	Moderate	30	Minor	Possible	6	Good	80	0.51	Below average	Small pond with lots of algae coverage, very close to pond 2 newts would use both ponds - likely to dry up in very hot weather. Within a public park so short grassland but lots of hedgerows/scrub and small blocks of woodland.
4	303721.6	381079.3	13/04/2021	RH	A	20	Some	Poor	0	Minor	None	15	Poor	60	0.53	Below average	small pond, some deep areas, largely vegetated with grass
5	304077.4	381024.3	13/04/2021	RH	A	206	Never	Good	20	Minor	Minor	15	Poor	40	0.67	Average	Pond alongside the hedgerow. Area of <i>Typha</i> along "separating" outer edge to inner deeper section of the pond. Wildfowl recorded at the pond
6	303303.7	381018.9	26/05/2021	AP	A	180	Never	Moderate	50	Absent	Possible	19	Poor	70	0.72	Good	
7	303460.1	380905.3	13/04/2021	RH	A	215	Never	Poor	0	Minor	Possible	18	Poor	10	0.61	Average	Very little vegetation present, fence around the pond however stock still able to access it - wildfowl recorded
8	303569	380868.4	13/04/2021	RH	A	450	Never	Good	20	Minor	Minor	18	Poor	20	0.70	Good	
9	303774.8	380739.9	26/05/2021	AP	A	315	Never	Moderate	50	Minor	Possible	21	Moderate	70	0.80	Excellent	
10	303834.5	380721.4	NO POND													-	
11	303134.9	380716.1	26/05/2021	AP	A	225	Never	Moderate	75	Absent	Possible	20	Moderate	20	0.72	Good	
12	303232.3	380564.1	13/04/2021	RH	A	130	Never	Good	100	Minor	Possible	20	Good	20	0.62	Average	Very shaded pond, only a very small area accessible to view, good surrounding habitat being in a woodland.
13	303158.1	380447.1	13/04/2021	RH	A	114	Never	Moderate	100	Minor	Possible	20	Poor	20	0.53	Below average	Very scrubbed over, hard to access
14	303427.5	380436.6	13/04/2021	KW	A	25	Some	poor	100	Minor	None	31	Moderate	10	0.44	Poor	Part of flash and flooded ground, very difficult to determine area - based on deepest water, Surrounded by trees and scrub, as well as reeds. majority not accessible. Ditch running between 14 and 15 was deeper and looked more suitable - smooth/palmate newt <i>Lissotriton vulgaris</i> / <i>Lissotriton helveticus</i> found
15	303325.2	380410.3	13/04/2021	KW	A	25	Some	poor	100	Minor	None	31	Moderate	10	0.44	Poor	Part of flash and flooded ground, very difficult to determine area - based on deepest water, Surrounded by trees and scrub, as well as reeds. majority not accessible. Ditch running between 14 and 15 was deeper and looked more suitable - smooth/palmate newt found
16	303486.6	380314.4	13/04/2021	KW	A	2300	Never	Moderate	60	Minor	Possible	30	Good	20	0.80	Excellent	Large pond in woods, quite shaded around the edge, much of it not accessible due to thick scrub but egg laying vegetation in area that was not accessible.

Pond #	Easting	Northing	Date of HSI Assessment	Lead Surveyor Initials	Location	Area m2	Drying	Water Quality	Shade %	Birds	Fish	Ponds 1km	Terrestrial	Plant %	HSI Score	HSI Rating	Additional notes
17	303092.9	380291.1	13/04/2021	KW	A	335	Rare	Good	25	Minor	Possible	20	Poor	70	0.79	Good	Nice pond with lots of egg laying vegetation, in arable field of bare/churned up ground but had hedgerow running along the back of it
18	303221.8	380078.6	13/04/2021	KW	a	600	Never	Moderate	40	Minor	Possible	20	Poor	10	0.72	Good	Pond almost completely surrounded by scrub, less than 10% accessible. In the centre of arable field of bare ground.
19	303408.7	380077.8	13/04/2021	KW	A	165	Rare	Good	30	Minor	Possible	20	Poor	50	0.72	Good	Nice pond in arable field, all perimeter accessible, some egg laying vegetation, abandoned eggs from waterfowl on bank
20	302760.6	380008.5	13/04/2021	LB	A	990	Never	Good	15	Minor	Minor	27	Poor	5	0.68	Average	Nice pond on field edge. All round accessible.
21	303489.6	379966.9	23/04/2021	KW	A	4500	Never	Moderate	75	Minor	Possible	20	Good	55	0.81	Excellent	Large pond in woods, very shaded, majority not accessible
22	302925.4	379762.2	13/04/2021	LB	A	290	Some	Bad	70	None	Absent	27	Moderate	10	0.47	Poor	Lots of rubbish within pond including chemical bottles and a mound of broken glass on the southern bank. Northern side and broken glass areas not accessible/not safe. White powder like substance on vegetation at the pond edge. Very shaded, lots of leaf litter. Quite shallow approx. 30cm.
23	302914.2	379646.4	13/04/2021	LB	A	1250	Never	Moderate	5	Major	Minor	27	Moderate	20	0.48	Poor	Some of northern bank not accessible
24	302573.1	379576.5	14/04/2021	JC	A	1500	Some	Moderate	50	Minor	Possible	27	Good	40	0.79	Good	Large wet area where water had significantly receded. Not safe to reach the deeper areas to survey. Values are estimated from accessible locations
25	302597.5	379507	14/04/2021	JC	A	860	Some	Moderate	50	Minor	Possible	27	Good	50	0.81	Excellent	Large wet area where water had significantly receded. Not safe to reach the deeper areas to survey. Values are estimated from accessible locations
26	302526.8	379311.6	NO POND													-	
27	302087.4	378684.7	26/05/2021	AP	A	162	Some	Poor	50	Minor	Possible	27	Moderate	0	0.58	Below average	
28	302099.8	378647.3			A	285	Never	Good	50	Minor	Possible	27	Good	60	0.84	Excellent	
29	301500.7	377785.5	NO POND													-	
30	301416.9	377468	NO POND													-	
31	301382.9	377340.1	05/11/2021	KW	A	9	Annual	Bad	0	Absent	Absent	5	Poor	100	0.00	-	Very shallow 'puddle' in middle of intensively grazed pasture field, full of grass and sheep poo.
32	301177.8	376998.7	26/05/2021	AP	A	83	Never	Good	50	Minor	Major	3	Good	5	0.43	Poor	
33	301706.4	376585.1	06/02/2021	KW	A	230	Never	Good	80	Absent	Possible	3	Good	5	0.74	Good	Surrounded by thick scrub, difficult to access
34	301778.5	375695.4	26/05/2021	AP	A	479	Never	Moderate	65	Minor	Major	2	Moderate	0	0.48	Poor	
35	301627.9	375221.3	05/11/2021	KW	A	638	Never	Moderate	80	Absent	Absent	2	Poor	10	0.74	Good	Pond surrounded by trees and scrub in the middle of heavily grazed pasture fields. very shaded
36	301079.7	373834.1	26/05/2021	AP	A	196	Never	Moderate	75	Absent	Possible	12	Good	35	0.75	Good	
37	302127.7	375209	26/05/2021	AP	A	473	Never	Moderate	50	Minor	Possible	12	Good	50	0.85	Excellent	
38	302009.7	375163.8	NO POND													-	
39	301857.2	374961.5	05/11/2021	KW	A	227	Never	Moderate	80	Minor	Possible	2	Good	95	0.75	Good	Pond covered in blanket duckweed, very shaded in woods
40	300803.9	374941.6	14/04/2021	TY	A	3112	Never	Good	25	Major	Major	22	Moderate	10	0.34	Poor	

Pond #	Easting	Northing	Date of HSI Assessment	Lead Surveyor Initials	Location	Area m2	Drying	Water Quality	Shade %	Birds	Fish	Ponds 1km	Terrestrial	Plant %	HSI Score	HSI Rating	Additional notes
41	302059.8	374885.9	26/05/2021	AP	A	450	Never	Good	70	Minor	Possible	12	Moderate	20	0.79	Good	
42	300753.3	374823.2	14/04/2021	TY	A	2072	Never	Good	70	Minor	Major	22	Moderate	5	0.50	Poor	
43	300955.7	374742.2	14/04/2021	RH	A	234	Never	Moderate	25	Minor	Absent	11	Moderate	25	0.75	Good	Pond alongside a hedgerow and bridleway, also trees around the edge of the pond. Poached as sheep access the pond, quite silted, goes deep quickly from the edge. Wildfowl observed
44	300663.1	374640.2	14/04/2021	TY	A	1850	Never	Good	70	Minor	Minor	22	Good	5	0.73	Good	
45	300609.4	374580.1	14/04/2021	TY	A	11700	Never	Moderate	10	Major	Major	22	Good	5	0.33	Poor	
46	301089.1	374439.9	14/04/2021	RH	A	257	Never	Moderate	15	Minor	Absent	14	Moderate	80	0.82	Excellent	Pond alongside a hedgerow, lots of vegetation present, deep silted pond. Lots of grass present along the shallower edge, more open water in the middle where it is deeper.
47	300599.8	374326.1	14/04/2021	TY	A	67	Never	Moderate	20	None	Possible	22	Poor	5	0.58	Below average	
48	300495.2	374153.4	14/04/2021	TY	A	267	Never	Moderate	40	Minor	Minor	22	Moderate	10	0.67	Average	
49	300911.2	374147.3	14/04/2021	RH	A	429.4	Never	Poor	90	None	None	14	Poor	5	0.64	Average	In field pond, poached by sheep, very shaded, little invertebrate life in the pond, vegetation limited to one small area where the water is shallower
50	302350.5	374026.7	Not surveyed													-	
51	301077.7	373854.9	14/04/2021	RH	A	176	Never	Good	0	Minor	None	4	Good	90	0.83	Excellent	Relatively new pond, currently quite a bit of algae present, lots of invertebrate life, good surrounding habitat
52	301079.7	373834.1	14/04/2021	RH	A	123	Never	Good	0	Minor	None	4	Moderate	10	0.71	Good	More of a decorative pond with stones/rocks in the shallower section.
53	302816	379688	23/04/2021	MC	A	250	Some	Poor	90	None	Absent	27	Moderate	10	0.62	Average	
54	301032	374523	05/11/2021	RH	A	54	Never	Poor	95	None	Absent	14	Moderate	5	0.54	Below average	In a woodland, very shaded, little vegetation present

POND TORCH/TRAP/NETTING RAW DATA

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphibs (list)	Trap GCN female	Trap GCN male	Trap other amphibs (list)	Netted GCN	Net other	Limitations	Notes
1	304795	382980	0	1	14/04/2021	KW	light breeze	6	No	<10	0	0	0	0	0	0		0	0	Cold, majority of bank could not be accessed	Very public lake, high walled banks, and other banks lined with scrub and reeds so not accessible for trapping/ netting. Can torch off the top of the walls. only small portion of bank could be netted - nothing found. Stocked with fish, waterfowl present and nesting
1	304795	382980	0	2	23/04/2021	KW	Still	13	No	10	N	0	0	0	0	0	0	0	0	much of bank not accessible	Lots of fish
1	304795	382980	0	3	05/06/2021	KW	light breeze	8	0	60	0	0	0	0	N/A	N/A	N/A	N/A	N/A	Much of bank not accessible	Lots of fish and waterfowl - water is slightly brackish
1	304795	382980	0	4	11/05/2021	KW	Light breeze	10	scattered light showers	50	N	0	0	Frog/ toad on bank - only saw back legs under a rock	N/A	N/A	N/A	N/A	N/A	Much of bank not accessible	Lots of fish and waterfowl - 3 x bats
2	303454	382094	0	1	14/04/2021	KW	light breeze	6	No	<10	0	0	0	3 smooth males, 7 smooth females, 1 common toad	0	0	0	0	4 smooth males, 1 smooth female	Cold	Netted - 4 smooth males, 1 smooth female. Waterfowl present, very murky so limited visibility for torching
2	303474	382068	16	2	23/04/2021	KW	Still	13	NO	10	Y	0	0	8 smooth male; 1 smooth female; 3 smooth/palmate female; 2 male toad	1	2	4 smooth male; 11 smooth female; 1 palmate female	N/A	N/A	None	
2	303474	382068	16	3	06/05/2021	KW	light breeze	8	0	60	Y	0	0	1 smooth male; 1 smooth female; 2 smooth/palmate female; 2 unidentified	1	1	4 palmate female; 12 smooth male; 7 smooth female	0	0	Water very murky - more so after all the rain, difficult to torch	
2	303474	382068	16	4	11/05/2021	KW	Light breeze	10	scattered light showers	50	Y - found previously	0	0	8 smooth male; 1 smooth female; 5 smooth/palmate female; 1 toad male	1	5	8 smooth male; 7 smooth female; 3 palmate female;	N/A	N/A	None	
3	303474	382068	0	1	14/04/2021	KW	light breeze	6	No	<10	0	0	0	1 smooth/palmate female	0	0	0	0	0	Cold - lots of rush and algae coverage, shallow water	Netted - nothing found. Very limited visibility through rush and algae, only small portion could be netted and torched
3	303454	382094	4	2	23/04/2021	KW	Still	13	NO	10	N	0	0	0	0	0	2 palmate female; 4 smooth male; 5 smooth female;	N/A	N/A	None	Almost dry - only water in the centre and not deep

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphib (list)	Trap GCN female	Trap GCN male	Trap other amphib (list)	Netted GCN	Net other	Limitations	Notes
3	303454	382094	4	3	06/05/2021	KW	light breeze	8	0	60	0	0	0	5 smooth male; 5 smooth/palmate female	0	0	2 palmate female; 1 smooth male; 2 smooth female	0	0	Very shallow, lots of algae coverage	
3	303454	382094	4	4	11/05/2021	KW	Light breeze	10	scattered light showers	50	N	0	0	1 smooth female	0	0	1 smooth female	N/A	N/A	Shallow, lots of algae	
3	303474	382068	16	5	24/05/2021	KW	Light breeze	11	No	75	Y	0	0	0	0	0	4 palmate female; 1 smooth male; 1 smooth female	N/A	N/A	Murky water	
3	303474	382068	20	6	06/01/2021	KW	light breeze	19	no	<20	y	0	0	4 smooth male; 6 smooth/palmate female	1	0	12 smooth male; 5 smooth female; 1 palmate female; 1 common frog (juvenile, unknown sex)	N/A	N/A	None	
4	303722	381079	0	1	13/04/2021	RH	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold	Netted - nothing found - bad visibility. Mallards present
4	303722	381079	5	2	24/04/2021	RH	Still	13	no	10	N	0	0	0	0	0	0	0	0	None	
4	303722	381079	5	3	04/05/2021	TY	Windy	9	Intermittent heavy hail storms, dry intervals - dry during torching	100	0	0	0	0	0	0	0	0	0	Managed to torch during rain interval	
4	303722	381079	5	4	11/05/2021	LB	Light breeze	10	scattered light showers	50	N	0	0	0	0	0	0	N/A	N/A	None	Very shallow and partially dried out
5	304077	381024	0	1	13/04/2021	RH	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold	Netted - nothing found. Mallards present
5	304077	381024	21	2	24/04/2021	RH	Still	13	no	10	N	0	0	0	0	0	0	0	0	None	Fish present
5	304077	381024	21	3	04/05/2021	TY	Windy	9	Intermittent heavy hail storms, dry intervals - dry during torching	100	0	0	0	0	0	0	0	0	0	Bad weather but clear during actual survey	
5	304077	381024	21	4	11/05/2021	LB	Light breeze	10	scattered light showers	50	N	0	0	0	0	0	0	N/A	N/A	None	Fish present
7	303460	380905	0	1	13/04/2021	RH	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold	Netted - nothing found, Mallard and moorhen present, very murky
7	303460	380905	12	2	24/04/2021	RH	Still	13	no	10	N	0	0	0	0	0	0	0	0	None	
7	303460	380905	12	3	04/05/2021	TY	Windy	9	Intermittent heavy hail storms, dry intervals - dry during torching	100	0	0	0	0	0	0	0	0	0	Bad weather but clear during actual survey	

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphib (list)	Trap GCN female	Trap GCN male	Trap other amphib (list)	Netted GCN	Net other	Limitations	Notes
7	303460	380905	12	4	11/05/2021	LB	Light breeze	10	scattered light showers	50	N	0	0	2x toads	0	0	0	N/A	N/A	None	
8	303569	380868	0	1	13/04/2021	RH	light breeze	6	No	0	0	0	1	3 smooth/palmate unknown	0	0	0	0	0	Cold	Netted - nothing found, moorhen present
8	303569	380868	25	2	24/04/2021	RH	Still	13	no	10	N	0	0	1 male smooth, tadpoles	0	0	0	0	0	None	water scorpion
8	303569	380868	25	3	04/05/2021	TY	Windy	9	Intermittent heavy hail storms, dry intervals - dry during torching	100	0	0	0	0	0	0	1 female smooth	0	0	Bad weather but clear during actual survey	
8	303569	380868	25	4	11/05/2021	LB	Light breeze	10	scattered light showers	50	N	0	0	0	0	0	0	N/A	N/A	None	
8	303569	380868	23	5	24/05/2021	KW	Light breeze	11	No	75	N	0	0	0	1	0	0	N/A	N/A	None	
8	303569	380868	22	6	06/01/2021	KW	light breeze	19	no	<20	N	0	0	0	0	0	0	N/A	N/A	None	
12	303232	380564	0	1	13/04/2021	RH	light breeze	6	No	0	0	0	1	0	0	0	0	0	0	Cold	Netted - nothing found, very inaccessible
12	303232	380564	3	2	24/04/2021	RH	Still	13	no	10	N	0	0	0	0	0	0	0	0	None	
12	303232	380564	3	3	04/05/2021	TY	Windy	9	Intermittent heavy hail storms, heavy rain before torching	100	0	0	0	0	0	0	0	0	0	Quite wet during torching, a lot of leaf litter in water, only small area accessible	
12	303232	380564	3	4	11/05/2021	LB	Light breeze	10	scattered light showers	50	N	0	0	0	0	0	0	N/A	N/A	Only small area accessible due to scrub	
12	303232	380564	3	5	24/05/2021	pk	Light breeze	11	NO	75	N	0	0	0	0	0	0	N/A	N/A	Very small portion of the bank accessible	
12	303232	380564	3	6	06/01/2021	pk	light breeze	19	no	<20	N	0	0	0	0	0	0	N/A	N/A	None	
13	303158	380447	0	1	13/04/2021	RH	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold	Netted - nothing found
13	303158	380447	7	2	24/04/2021	RH	Still	13	no	10	N	0	0	0	0	0	0	0	0	None	
13	303158	380447	7	3	04/05/2021	TY	Windy	9	Intermittent heavy hail storms, heavy rain before torching	100	0	0	0	0	0	0	0	0	0	Quite wet during torching, only about half accessible due to scrub	
13	303158	380447	7	4	11/05/2021	LB	Light breeze	10	scattered light showers	50	N	0	0	0	0	0	0	N/A	N/A	Only about half accessible due to scrub	
14	303428	380437	0	1	13/04/2021	KW	light breeze	6	No	0	0	0	0	1 smooth/palmate female in ditch between 14 and 15	0	0	0	0	0	Cold, majority of bank could not be accessed	Netted - nothing found. Difficult to net as full of grass, leaf little twigs etc. Can torch small areas, ~1m gaps along bank could be accessed for torching and trapping in future,

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphib (list)	Trap GCN female	Trap GCN male	Trap other amphib (list)	Netted GCN	Net other	Limitations	Notes
																					lots of scrub. extended from the flash so boggy around; waterfowl present
14	303428	380437	10	2	04/05/2021	KW	Light breeze with moderate gusts	9	scattered showers and hail for torching	90	N	0	0	0	0	0	0	N/A	N/A	Only small sections of bank accessible, water very shallow	Ponds form part of flash, deep drainage ditch between ponds 14 and 15 so also torched and trapped
14	303428	380437	5	3	11/05/2021	PK	Calm	11	Y	90	N	0	0	0	0	0	0	N/A	N/A	None	
14	303428	380437	5	4	24/05/2021	PK	Light breeze	11	No	75	N	0	0	0	0	0	0	N/A	N/A	None	
15	303325	380410	0	1	13/04/2021	KW	light breeze	6	No	0	0	0	0	See above	0	0	0	0	0	Cold, majority of bank could not be accessed	Netted - nothing found. Difficult to net as full of grass, leaf little twigs etc. Can torch small areas, ~1-2m gaps along bank could be accessed for torching and trapping in future, lots of scrub. extended from the flash so boggy around - too deep for wellies so need waders for future trapping; waterfowl present
15	303325	380410	10	2	04/05/2021	KW	Light breeze with moderate gusts	9	scattered showers and hail for torching	90	N	0	0	0	0	0	Tadpoles	N/A	N/A	Only small sections of bank accessible, water very shallow	Ponds form part of flash, deep drainage ditch between ponds 14 and 15 so also torched and trapped
15	303325	380410	5	3	11/05/2021	PK	Calm	11	Y	90	N	0	0	0	0	0	0	N/A	N/A	None	
15	303325	380410	5	4	24/05/2021	PK	Light breeze	11	No	75	N	0	0	0	0	0	0	N/A	N/A	None	
16	303487	380314	0	1	13/04/2021	KW	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold	Netted - nothing found. In the middle of the woods, very shaded. Quite clear water and leaf litter all along bottom no other vegetation, pheasants present. Also Badger sett to the east
16	303487	380314	20	2	04/05/2021	KW	Light breeze with moderate gusts	9	scattered showers and hail for torching	90	N	0	0	0	0	0	0	N/A	N/A	None	
16	303487	380314	20	3	11/05/2021	PK	Calm	11	Y	90	N	0	0	0	2	3	0	N/A	N/A	None	
16	303487	380314	20	4	24/05/2021	PK	Light breeze	11	No	75	N	0	0	0	0	0	0	N/A	N/A	None	
16	303487	380314	20	5	06/01/2021	PK	light breeze	19	no	<20	N	0	0	0	0	3	0	N/A	N/A	None	
16	303487	380314	20	6	08/06/2021	ap	light breeze	15	no	60	N	0	0	0	0	0	0	N/A	N/A	None	
17	303093	380291	0	1	13/04/2021	KW	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold	Netted - nothing found
17	303093	380291	15	2	04/05/2021	KW	Light breeze with moderate gusts	9	scattered showers and hail for torching	90	N	0	0	1 smooth/palmate female	0	0	0	N/A	N/A	None	
17	303093	380291	15	3	11/05/2021	PK	Calm	11	Y	90	N	0	0	0	1	0	0	N/A	N/A	None	

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphib (list)	Trap GCN female	Trap GCN male	Trap other amphib (list)	Netted GCN	Net other	Limitations	Notes
17	303093	380291	15	4	24/05/2021	PK	Light breeze	11	No	75	N	0	0	0	0	0	0	N/A	N/A	None	
17	303093	380291	15	5	06/01/2021	PK	light breeze	19	no	<20	N	0	0	0	0	0	0	N/A	N/A	None	
17	303093	380291	15	6	08/06/2021	ap	light breeze	15	no	60	N	0	0	0	0	0	0	N/A	N/A	None	
18	303222	380079	0	1	13/04/2021	KW	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold, majority of bank could not be accessed	Netted - nothing found. Could only access approx .4-5m of bank in total by jumping the fence as surrounded by heavy scrub. Waterfowl present. in arable field
18	303222	380079	5	2	04/05/2021	KW	Light breeze with moderate gusts	9	scattered showers and hail for torching	90	N	0	0	0	0	0	0	N/A	N/A	Only 10% bank accessible over fence and between scrub	
18	303222	380079	5	3	11/05/2021	PK	Calm	11	Y	90	N	0	0	0	0	0	0	N/A	N/A	None	
18	303222	380079	5	4	24/05/2021	PK	Light breeze	11	No	75	N	0	0	0	0	0	0	N/A	N/A	None	
19	303409	380078	0	1	13/04/2021	KW	light breeze	6	No	0	0	0	0	1 smooth/palmate female	0	0	0	0	0	Cold	Netted - nothing found; waterfowl present. Surrounded by arable field
19	303409	380078	13	2	04/05/2021	KW	Light breeze with moderate gusts	9	scattered showers and hail for torching	90	N	0	0	0	0	0	0	N/A	N/A	None	
19	303409	380078	13	3	11/05/2021	PK	Calm	11	Y	90	N	0	0	0	0	0	0	N/A	N/A	None	
19	303409	380078	13	4	24/05/2021	PK	Light breeze	11	No	75	N	0	0	0	0	0	0	N/A	N/A	None	
20	302761	380008	0	1	13/04/2021	LB	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold	Netted - nothing found - lots of leeches in net
20	302761	380008	30	2	23/05/2021	MC	Still	13	No	10	N	0	0	0	0	0	1 smooth female	0	0	None	Fish present, Toad tadpoles
20	302761	380008	30	3	04/05/2021	MC	Light breeze with moderate gusts	6	Showers during torching	90	N	0	0	0	0	0	0	0	smooth/palmate eggs, toad tadpoles	Cold	Public Fishing
20	302761	380008	30	4	11/05/2021	MC	Calm	11	scattered light showers	50	N	0	0	1 Toad, smooth eggs	N/A	N/A	3 smooth male, toad tadpoles.	N/A	Water stick insect	Put traps away from footpath to avoid tampering	Clear water- saw roach and other large fish species
21	303490	379967	0	1	14/04/2021	KW	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold, majority of bank could not be accessed	Netted - nothing found. Very large pond but most of bank thick with bramble and scrub. Clear water, lots of leaf litter, not much other vegetation. Pheasants present, very shaded as in woods.
21	303490	379967	14	2	23/04/2021	KW	Still	13	NO	10	N	0	1	0	0	0	0	N/A	N/A	Only access one side of bank	
21	303490	379967	14	3	04/05/2021	KW	Light breeze with moderate gusts	9	scattered showers and hail for torching	90	0	0	0	0	0	0	0	0	0	Cold	

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphibs (list)	Trap GCN female	Trap GCN male	Trap other amphibs (list)	Netted GCN	Net other	Limitations	Notes
21	303490	379967	13	4	11/05/2021	PK	Calm	11	Y	90	N	0	0	0	0	0	0	0	0	None	
21	303490	379967	13	5	24/05/2021	PK	Light breeze	11	No	75	N	0	0	0	0	0	0	N/A	N/A	None	
21	303490	379967	13	6	06/01/2021	pk	light breeze	19	no	<20	N	0	0	0	0	0	0	N/A	N/A	None	
22	302925	379762	0	1	13/04/2021	LB	light breeze	6	No	0	0	0	0	0	0	0	0	N/A	N/A	Cold	Pond not suitable for netting - didn't net as pond polluted and shallow with no vegetation
22	302925	379762	5	2	23/04/2021	MC	Still	13	No	10	N	0	0	0	0	0	0	0	0	Difficult to access from bank	Broken glass, Possible asbestos, rats
22	302925	379762	5	3	04/05/2021	MC	Light breeze with moderate gusts	6	Showers during torching	90	N	0	0	0	0	0	0	0	0	Most of bank inaccessible due to brash, broken glass and possible asbestos	Most of bank inaccessible due to brash, broken glass and possible asbestos.
22	302925	379762	5	4	11/05/2021	MC	Calm	11	scattered light showers	50	N	0	0	0	0	0	0	0	0	Asbestos, broken glass, chemical bottles, shallow	
23	302914	379646	0	1	13/04/2021	LB	light breeze	6	No	0	Y	0	1	2x smooth/palmate Fe, 1x smooth/palmate unknown	0	0	0	0	0	Cold	Netted - nothing found. Canada Geese present
23	302914	379646	36	2	23/04/2021	MC	Still	13	No	10	FouNd Previously	2	0	5 smooth/palmate female, 1 unknown	0	0	1 palmate female, 5 smooth male, 4 smooth female	0	0	Marsh to one side	Huge stickleback population, possibly larger Fish, toad tadpoles
23	302914	379646	36	3	04/05/2021	MC	Light breeze with moderate gusts	6	Showers during torching	90	FouNd Previously	0	0	0	0	0	1 smooth male	0	Toad tadpoles	Marsh to one side, Cold	Huge stickleback population plus bigger fish, minor bird presence, water stick insects and toad tadpoles
23	302914	379646	36	4	11/05/2021	MC	Calm	11	scattered light showers	70	Y	5	0	5 male smooth, 4 femal smooth/palmate, 2 unknown	0	0	2 smooth male, 4 smooth female, toad and frog tadpoles	0	0	Marsh to one side	Large fish population, possibly being stocked?
23	302914	379646	31	5	24/05/2021	KW	Light breeze	11	No	75	Y	0	0	1 smooth/palmate female	0	0	tadpoles, smooth-unknown	N/A	N/A	One side of bank flooded and not accessible	
23	302914	379646	28	6	06/01/2021	pk	light breeze	19	no	<20	N	0	0	0	0	0	0	N/A	N/A	None	

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphibs (list)	Trap GCN female	Trap GCN male	Trap other amphibs (list)	Netted GCN	Net other	Limitations	Notes
24	302573	379576	0	1	14/04/2021	KW	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold - actual pond within marshland and could not be accessed	In marsh land, thick with scrub and reeds and flooded everywhere. Actual pond could not be accessed, too much scrub around most part and ground was too 'sinky' to try and wander through. All connected with flooded water and a drain to the south-east so torched and netted two very small accessible sections of the drain. Nothing found. Homeowner at P26 did say she would find newts in her garden and house. 1 common frog/toad seen hopping in field next to pond. Not suitable for trapping - think it would be extremely difficult to find them again and accessible water is too shallow - ground sinks too much to get deeper. Waterfowl present
24	302573	379576	3	2	23/04/2021	MC	Still	13	No	10	N	0	0	0	0	0	0	0	0	Mostly inaccessible due to marsh - <i>Typha</i> and <i>Carex pendula</i> (dry)	Most inaccessible due to <i>Typha</i> and <i>Carex pendula</i> (dry)
24	302573	379576	3	3	04/05/2021	MC	Light breeze with moderate gusts	6	Showers during torching	90	N	0	0	0	0	0	0	0	0	Mostly inaccessible due to marsh - <i>Typha</i> and <i>Carex pendula</i> (dry)	Minor waterfowl
24	302573	379576	2	4	11/05/2021	MC	Calm	11	scattered light showers	70	N	0	0	0	0	0	0	0	0	Mostly dry <i>Typha</i> and pendulus sedge, water inaccessible	
25	302597	379507	0	1	14/04/2021	KW	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold - actual pond within marshland and could not be accessed	See above
25	302597	379507	2	2	23/04/2021	MC	Still	13	No	10	N	0	0	0	0	0	0	0	0	Accessible ditch off marshland	Actual pond inaccessible due to <i>Typha</i> and <i>Carex pendula</i>
25	302597	379507	2	3	04/05/2021	MC	Light breeze with moderate gusts	6	Showers during torching	90	N	0	0	0	0	0	0	0	0	Ditch off marshland only place accessible to put traps	
25	302597	379507	3	4	11/05/2021	MC	Calm	11	scattered light showers	70	N	0	0	1 frog	0	0	0	0	0	As above - drainage ditch off above	
26	302527	379312	NO POND											0	0	0	0	0			

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphibs (list)	Trap GCN female	Trap GCN male	Trap other amphibs (list)	Netted GCN	Net other	Limitations	Notes
31	301383	377340	0	1	14/04/2021	KW	light breeze	6	No	0	0	0	0	0	0	0	0	0	0	Cold,	Pond very shallow, more wet grassland
31	301383	377340	0	2	23/04/2021	KW	Still	13	NO	10	N	0	0	0	0	0	0	0	0	Full of grass and shallow water so can't be trapped and difficult to torch	very shallow, full of grass and sheep poo
31	301383	377340	0	3	11/05/2021	KW	Light breeze	10	scattered light showers	50	N	0	0	0	N/A	N/A	N/A	N/A	N/A	Very shallow, full of grass	
31	301383	377340	N/A	4	24/05/2021	KW	Light breeze	11	No	75	N	0	0	0	0	0	0	N/A	N/A	Very shallow, full of grass	
31	301383	377340	N/A									0	0	0	0	0	0	0	0	None	
35	301628	375221	0	1	14/04/2021	RH	light breeze	6	no	5	0	0	0	0	0	0	0	0	0	Cold	Netted - nothing caught. Ducks present. overgrown with willow, very shady. no aquatic vegetation
35	301628	375221	20	2	23/04/2021	KW	Still	13	NO	10	N	0	0	0	0	0	0	N/A	N/A	None	
35	301628	375221	20	3	06/05/2021	KW	light breeze	8	0	60	0	1	0	0	0	0	0	N/A	N/A	None	
35	301628	375221	20	4	11/05/2021	KW	Light breeze	10	scattered light showers	50	N	0	0	0	0	0	0	N/A	N/A	Tree branch had broken off and was blocking part of bank, so area of bank accessible was reduced	
35	301628	375221	20	5	24/05/2021	KW	Light breeze	11	No	75	N	0	0	0	0	0	0	0	0	None	
35	301628	375221	20	6	06/01/2021	KW	light breeze	19	no	<20	N	0	0	0	0	0	0	N/A	N/A	None	
39	301857	374961	0	1	14/04/2021	RH	light breeze	6	no	5	0	0	0	0	N/A	N/A	N/A	0	0	Cold	Netted - nothing caught, not torched as 100% duckweed
39	301857	374961	20	2	23/04/2021	KW	Still	13	NO	10	N	0	0	0	0	1	1 smooth male	N/A	N/A	Covered in duckweed so difficult to torch	
39	301857	374961	20	3	06/05/2021	KW	light breeze	8	0	60	0	0	0	0	0	0	0	N/A	N/A	Covered in duck weed - torching almost impossible	
39	301857	374961	20	4	11/05/2021	KW	Light breeze	10	scattered light showers	50	N	0	0	0	0	0	5 smooth male; 1 smooth female	N/A	N/A	Covered in blanket duck weed, almost impossible to torch	
39	301857	374961	20	5	24/05/2021	KW	Light breeze	11	No	75	N	N/A	N/A	N/A	0	0	1 smooth male	N/A	N/A	Blanket duckweed so cannot be torched	
39	301857	374961	20	6	06/01/2021	KW	light breeze	19	no	<20	N	N/A	N/A	N/A	0	0	0	N/A	N/A	None	
40	300804	374942	0	1	14/04/2021	TY	light breeze	6	no	5	0	0	0	1 smooth/palmate unknown.	0	0	0	0	0	Cold	Huge stickleback population
40	300804	374942	30	2	26/04/2021	TY	Calm	12	0	20	0	0	0	0	0	0	0	0	1 female toad	Fish	

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphibians (list)	Trap GCN female	Trap GCN male	Trap other amphibians (list)	Netted GCN	Net other	Limitations	Notes
40	300804	374942	30	3	04/05/2021	LB	Light breeze with moderate gusts	9	Light showers for torching	100	N	0	0	0	0	0	Tadpoles	0	0	Light showers during torching but quite sporadic and quite sheltered within woodland and so did not affect the torching too much	
40	300804	374942	0	4	11/05/2021	TY	light breeze	11	scattered light showers	80	N	0	0	0	N/A	N/A	N/A	0	0	Lined - torch only, with egg search	
42	300753	374823	0	1	14/04/2021	TY	light breeze	6	no	5	0	0	0	0	0	0	0	0	0	Cold	Huge stickleback population
42	300753	374823	30	2	26/04/2021	TY	Calm	12	0	20	0	0	0	0	0	0	0	0	0	Fish	
42	300753	374823	30	3	04/05/2021	LB	Light breeze with moderate gusts	9	Light showers for torching	100	N	0	0	0	0	0	Tadpoles	0	0	Light showers during torching but quite sporadic and quite sheltered within woodland and so did not affect the torching too much	
42	300753	374823	30	4	11/05/2021	TY	light breeze	11	scattered light showers	80	N	0	0	0	0	0	0	N/A	0	None	
43	300956	374742	0	1	14/04/2021	RH	light breeze	6	no	5	0	0	0	0	0	0	0	2 females	0	Cold	Netted - 2 female GCN
43	300956	374742	15	2	26/04/2021	RH	calm	12	0		0	0	0	0	0	0	0	N/A	N/A	None	
43	300956	374742	15	3	05/04/2021	RH	Light breeze with moderate gusts	9	Occasional showers	100	N	0	0	0	0	0	0	N/A	N/A	Rain during survey - not easy to see	
43	300956	374742	15	4	11/05/2021	RH	light breeze	11	scattered light showers	80	N	0	0	1 smooth/palmate unknown	0	0	0	N/A	N/A	None	
43	300956	374742	15	5	24/05/2021	RH	Light breeze	11	No	75	Y	1	0	0	0	0	0	N/A	N/A	Poor visibility	
43	300956	374742	15	6	06/01/2021	RH	calm	18	No	10	N	0	0	0	0	0	0	N/A	N/A	None	
44	300663	374640	0	1	14/04/2021	TY	light breeze	6	no	5	0	0	0	2 toads	0	0	0	0	0	Cold	Sticklebacks
44	300663	374640	30	2	26/04/2021	TY	Calm	12	0	20	0	0	0	0	0	0	0	0	0	Fish	
44	300663	374640	30	3	04/05/2021	LB	Light breeze with moderate gusts	9	Light showers for torching	100	N	0	0	1x smooth/palmate Female	0	0	Tadpoles	0	0	Light showers during torching but quite sporadic and quite sheltered within woodland and so did not affect the torching too much	
44	300663	374640	30	4	11/05/2021	TY	light breeze	11	scattered light showers	80	N	0	0	7 smooth female, 2 smooth male, 3 smooth/palmate unknown	0	0	0	N/A	N/A	None	All newts were concentrated in a small (6m of bank) area in extreme Northeast corner of pond. None caught in traps despite 3 traps being in this area, no amphibians in remainder of pond, many sticklebacks.
45	300609	374580	0	1	14/04/2021	TY	light breeze	6	no	5	0	0	0	4 toads	0	0	0	0	0	Cold	Sticklebacks, approx. 25% bank (plus shore of three large islands) inaccessible due to scrub or nesting swans.
45	300609	374580	35	2	26/04/2021	TY	calm	12	0	20	0	0	0	0	0	0	0	0	0	Fish, huge pond - not possible to cover whole area	

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphib (list)	Trap GCN female	Trap GCN male	Trap other amphib (list)	Netted GCN	Net other	Limitations	Notes
45	300609	374580	35	3	04/05/2021	LB	Light breeze with moderate gusts	9	Light showers for torching	100	N	0	0	0	0	0	1 smooth female	0	0	Light showers during torching but quite sporadic and quite sheltered within woodland and so didn't affect the torching too much	
45	300609	374580	35	4	11/05/2021	TY	light breeze	11	scattered light showers	80	N	0	0	0	0	0	3 smooth female, 1 smooth male	N/A	N/A	None	
46	301089	374440	0	1	14/04/2021	RH	light breeze	6	no	5	0	0	0	2 smooth/palmate unknown. 1 smooth/palmate female	0	0	0	0	1 smooth female 1 toad	Cold	
46	301089	374440	15	2	26/04/2021	RH	calm	12	0		0	0	0	0	0	0	0	0	0	None	
46	301089	374440	15	3	05/04/2021	RH	Light breeze with moderate gusts	9	Occasional showers	100	N	0	0	0	0	0	0	N/A	N/A	Poor visibility - lots of grass in the pond	
46	301089	374440	15	4	11/05/2021	RH	light breeze	11	scattered light showers	80	Y	0	0	2 frogs	0	0	2 smooth males	N/A	N/A	None	
46	301089	374440	15	5	24/05/2021	RH	Light breeze	11	No	75	N	0	0	0	0	0	0	N/A	N/A	Can only torch edge, lots of vegetation	
46	301089	374440	15	6	06/01/2021	RH	calm	18	No	10	N	0	0	2 frogs	1	1	0	N/A	N/A	None	
47	300600	374326	0	1	14/04/2021	TY	light breeze	6	no	5	0	0	0	2 smooth/palmate unknown. 2 smooth/palmate female, 1 smooth male.	0	0	0	0	0	Cold	
47	300600	374326	8	2	26/04/2021	RH	calm	12	0		0	0	0	3 female smooth/palmate, 10 unknown smooth/palmate	0	0	2 male palmate	N/A	N/A	None	
47	300600	374326	8	3	11/05/2021	RH	light breeze	11	scattered light showers	80	Y	0	0	0	0	0	0	N/A	N/A	None	
47	300600	374326	10	4	24/05/2021	RH	Light breeze	11	No	75	Y	0	0	1 female smooth/palmate, 2 unknown smooth/palmate	0	0	0	N/A	N/A	None	
47	300600	374326	10	5	06/01/2021	RH	calm	18	No	10	N	0	0	5 male smooth, 11 smooth/palmate female, 1 smooth/palmate unknown	0	0	1 smooth female	N/A	N/A	None	
47	300600	374326	10	6	08/06/2021	ap	light breeze	15	no	60	N	0	0	1 palmate male, 5 smooth male, 10 smooth/palmate female; 7 unknown	0	0	0	N/A	N/A	None	
48	300495	374153	0	1	14/04/2021	TY	light breeze	6	no	5	0	0	0	0	0	0	0	0	0	Cold	
48	300495	374153	15	2	26/04/2021	RH	calm	12	0		0	1	1	5 male smooth, 1 female palmate, 7	0	0	8 male palmate, 1 female	N/A	N/A	None	

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphib (list)	Trap GCN female	Trap GCN male	Trap other amphib (list)	Netted GCN	Net other	Limitations	Notes
														unknown smooth/palmate			palmate, 1 male smooth				
48	300495	374153	15	3	05/04/2021	RH	Light breeze with moderate gusts	9	Occasional showers	100	N	1	0	0	0	0	0	N/A	N/A	Light showers during torching but quite sporadic and quite sheltered within woodland and so did not affect the torching too much	
48	300495	374153	15	4	11/05/2021	RH	light breeze	11	scattered light showers	80	Y	1	1	2 smooth male, 2 smooth/palmate female	0	0	0	N/A	N/A	None	
48	300495	374153	15	5	24/05/2021	RH	Light breeze	11	No	75	Y	2	1	1 female smooth/palmate	0	0	0	N/A	N/A	Limited visibility	
48	300495	374153	15	6	06/01/2021	RH	calm	18	No	10	N	1	1	4 smooth/palmate female, 2 smooth/palmate unknown	3	0	1 palmate male, 1 palmate female, 6 smooth male 1 smooth female	N/A	N/A	None	
49	300911	374147	0	1	14/04/2021	RH	light breeze	6	no	5	0	0	0	0	0	0	0	0	0	Cold - very poor visibility	poor visibility
49	300911	374147	10	2	26/04/2021	RH	calm	12	0		0	0	0	0	0	0	0	N/A	N/A	None	
49	300911	374147	8	3	05/04/2021	RH	Light breeze with moderate gusts	9	Occasional showers	100	N	0	0	0	0	0	0	N/A	N/A	Very bad visibility	
49	300911	374147	10	4	11/05/2021	RH	light breeze	11	scattered light showers	80	N	0	0	0	0	0	0	N/A	N/A	None	
51	301078	373855	0	1	14/04/2021	RH	light breeze	6	no	5	0	0	1	1 smooth/palmate unknown, 7 smooth/palmate female, 5 smooth male	0	0	0	0	1 female smooth, 1 toad	Cold	lots of algae
51	301078	373855	0	2	26/04/2021	RH	calm	12	0		0	0	0	3 male smooth, 2 female smooth/palmate, 5 unknown smooth/palmate	0	0	0	0	0	Can't trap as lined - nothing	
51	301078	373855	N/A	3	05/04/2021	LB	Light breeze with moderate gusts	9	Light showers for torching	100	N	0	0	0	N/A	N/A	N/A	N/A	N/A	Light showers during torching but stopped during torching	
51	301078	373855	0	4	11/05/2021	TY	light breeze	11	light rain	80	N	0	0	0	N/A	N/A	N/A	N/A	N/A	Torch only	
51	301078	373855	0	5	24/05/2021	RH	Light breeze	11	No	75	N	0	0	5 male smooth, 3 smooth/palmate female, 4 smooth/palmate unknown	N/A	N/A	N/A	N/A	N/A	Lots of algae, not much visibility	
51	301078	373855	0	6	01/06/2021	KW	light breeze	19	no	<20	N	0	0	2 smooth male; 5 smooth/palmate female; tadpoles unknown	N/A	N/A	N/A	N/A	N/A	None	
52	301080	373834	0	1	14/04/2021	RH	light breeze	6	no	5	0	0	2	8 smooth/palmate	0	0	0	0	0	None	lots of algae, decorative pond

Pond #	Easting	Northing	No Bottle Traps Set	Visit Number	Date	Lead Surveyor	Wind	Temp oC	Rain during survey?	Cloud Cover %	GCN Egg	Torch GCN female	Torch GCN Male	Torch other amphib (list)	Trap GCN female	Trap GCN male	Trap other amphib (list)	Netted GCN	Net other	Limitations	Notes
														unknown, 1 smooth/palmate female, 7 smooth male							
52	301080	373834	0	2	26/04/2021	RH	calm	12	0	20	0	0	0	6 female smooth/palmate, 3 unknown smooth/palmate	0	0	0	N/A	N/A	Looks like it's been treated - not easy to net as rocky and slippery and large drop off	
52	301080	373834	N/A	3	05/04/2021	LB	Light breeze with moderate gusts	9	Light showers for torching	100	N	0	0	0	N/A	N/A	N/A	N/A	N/A	Light showers during torching	
52	301080	373834	0	4	11/05/2021	TY	light breeze	11	light rain	80	N	0	0	0	N/A	N/A	N/A	N/A	N/A	Torch only - water dyed blue and so quite hard to see	
52	301080	373834	0	5	24/05/2021	RH	Light breeze	11	No	75	N	0	0	1 male smooth, 1 female smooth/palmate, 1 unknown sp.	N/A	N/A	N/A	N/A	N/A	Blue water, bad visibility	
52	301080	373834	0	6	06/01/2021	KW	light breeze	19	no	<20	N	0	0	1 smooth male; 2 smooth/palmate female; 3 unknown	N/A	N/A	N/A	N/A	N/A	None	
53	302816	379688	10	1	24/04/2021	MC	Still	13	0	10	N	0	0	0	0	0	0	0	0	Very shallow so limited traps	Small woodland pond - may dry out
53	302816	379688	10	2	05/04/2021	MC	Light breeze with moderate gusts	6	Light Showers	100	N	0	0	0	N/A	N/A	N/A	N/A	N/A	Light showers during torching	
53	302816	379688	10	3	11/05/2021	MC	Calm	11	scattered light showers	80	N	0	0	0	0	0	0	N/A	N/A	None	Small shallow woodland pond
53	302816	379688	7	4	24/05/2021	KW	Light breeze	11	No	75	N	0	0	0	0	0	0	N/A	N/A	None	
53	302816	379688										0	0	0	0	0	0	0	0	None	
53	302816	379688										0	0	0	0	0	0	0	0	None	
54	301032	374523	12	1	05/04/2021	RH	Light breeze with moderate gusts	9	Occasional	100	0	0	0	0	1	0	0	N/A	N/A	Occasional showers but sheltered	
54	301032	374523	12	2	11/05/2021	RH	light breeze	11	scattered light showers	80	0	0	0	0	0	0	0	N/A	N/A	None	
54	301032	374523	12	3	24/05/2021	RH	Light breeze	11	No	75%	N	0	0	0	0	1	0	N/A	N/A	Poor visibility	
54	301032	374523	12	4	01/06/2021	RH	calm	18	No	10	N	0	1	0	0	1	2 smooth males	N/A	N/A	None	
54	301032	374523	12	5	08/06/2021	ap	light breeze	15	no	60	N	0	0	0	0	0	0	N/A	N/A	None	
54	301032	374523	12	6	13/06/2021	ap	light breeze	18	no	30	N	2	0	0	0	0	2 smooth female	N/A	N/A	None	

EDNA RAW DATA AND LAB RESULTS

Pond #	Easting	Northing	Date of EDNA Sample Collection	Sample ref no	Lead Surveyor Name	Date eDNA sent for Analysis	eDNA Result
6	303304	381019	26/05/2021	5651	Ashley Payne (accredited agent on licence S088009/2)	28/05/2021	Positive
9	303775	380740	26/05/2021	5655	Ashley Payne (accredited agent on licence S088009/2)	28/05/2021	Positive
11	303135	380716	26/05/2021	5652	Ashley Payne (accredited agent on licence S088009/2)	28/05/2021	Positive
27	302087	378685	26/05/2021	5654	Ashley Payne (accredited agent on licence S088009/2)	28/05/2021	Negative
28	302100	378647	26/05/2021	5653	Ashley Payne (accredited agent on licence S088009/2)	28/05/2021	Negative
32	301178	376999	26/05/2021	2795	Ashley Payne (accredited agent on licence S088009/2)	28/05/2021	Negative
33	301706	376585	02/06/2021	3651	Ashley Payne (accredited agent on licence S088009/2)	10/06/2021	Negative
34	301778	375695	26/05/2021	2793	Ashley Payne (accredited agent on licence S088009/2)	28/05/2021	Negative
36	301080	373834	26/05/2021	2794	Ashley Payne (accredited agent on licence S088009/2)	28/05/2021	Negative
37	302128	375209	26/05/2021	3650	Ashley Payne (accredited agent on licence S088009/2)	29/05/2021	Negative
41	302060	374886	26/05/2021	3656	Ashley Payne (accredited agent on licence S088009/2)	28/05/2021	Negative

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