

AW2 Battery Energy Storage Site

784-B070326

Great Crested Newt Survey Report

AW2 Energy Storage Ltd

May 2025

**Document prepared on behalf of Tetra Tech Limited. Registered in England
number: 01959704**



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DOCUMENT CONTROL

Document:	Great Crested Newt Survey Report
Project:	AW2 Battery Energy Storage Site
Client:	AW2 Energy Storage Ltd
Project Number:	784-B070326
File Origin:	\\lds-dc-vm-101\Data\Projects\784-B070326 AW2 BESS Ash storage area \60 Output\61 WIP\2025 GCN

Revision:	2	Prepared by:	Fraser McCarter BSc (Hons) Consultant Ecologist
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Status:	Issue	Approved By:	Sean Flynn MCIEEM CEnv Associate Ecologist
Description of Revision:	Final report		

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EXECUTIVE SUMMARY

Contents	Summary
Site Location	The site is located at Uskmouth Power Station in Newport, Wales and is centered at Ordnance Survey National Grid Reference ST 32878 83698.
Proposals	The project proposes the creation of a Battery Energy Storage System (BESS) in the location of the area of Uskmouth Power Station that was previously the waste ash storage for the wider site. The development will result in the loss of an area of semi-improve neutral grassland, scrub, ephemeral vegetation, and hardstanding.
Scope of this Survey(s)	Three waterbodies are present on site (D1, P1, P2), with a further four waterbodies in the wider site boundary (D2, P3, P4, P7), and two in the neighbouring Newport Wetlands RSPB (P5 and P6) (up to a maximum 500 m buffer). All nine waterbodies were assessed for great crested newt (GCN) habitat suitability, thereafter, only those suitable were assessed for GCN eDNA (no access to P1), and presence / absence surveys.
Results and Evaluation	GCN eDNA surveys all returned a negative result. Presence / absence surveys have been completed for D1, P2, and P3 which did not confirm the presence of any GCN. Populations of common amphibians have been confirmed within the site. The combined results confirm it is highly likely that GCN are absent on site, or within the vicinity.
Recommendations	No further surveys or mitigation specific to GCN are required. It is recommended that the waterbodies on site are retained and protected throughout the development as they support common amphibians. Precautionary working methods will provide mitigation against killing and injury to other amphibians.
Conclusions	Surveys found that GCN are likely absent from the site and no specific mitigation is required.

1.0 INTRODUCTION

Tetra Tech was commissioned by AW2 Energy Storage Ltd on 31st January 2025 to undertake a great crested newt (GCN) *Triturus cristatus* survey of site AW2, hereafter referred to as “the site”.

This report has been prepared by Consultant Ecologist Fraser McCarter BSc (Hons) and the conditions pertinent to it are provided in Appendix A.

GCN are a European protected species, full details of that protection, including types of offences and policy position are provided in Appendix B.

1.1 SITE LOCATION

The site is located at Uskmouth Power Station in Newport, Wales and is centered at Ordnance Survey National Grid Reference ST 32878 83698 (Figure 1). It comprises a disused ash storage structure which has begun to be colonised by vegetation. Encircling the area is a drainage ditch, along with patches of scrub, colonizing ground, and semi-improved grassland situated among the train tracks to the north of the storage zone. To the west of the site, there are two ponds bordered by scrub habitats that connect to the Newport Wetlands NNR located to the south.

Figure 2 presents the waterbodies within the wider Uskmouth Power Station site and Newport Wetlands. There are two ponds (P1 and P2) and a ditch (P4) within the site boundary, with a further nine within 500 metres of the site boundary. This includes a newly created waterbody (P3) associated with the Battery Energy Storage System (BESS) development within the wider site boundary.

The site also features several drainage ditches which link waterbodies and outfall into the Severn Estuary to the south.

1.2 DEVELOPMENT PROPOSALS

The project is for the creation of a BESS in the location of the area of Uskmouth Power Station that was previously the waste ash storage for the wider site. The development will result in the loss of an area of semi-improve neutral grassland, scrub, ephemeral vegetation, and hardstand.

1.3 PURPOSE OF THE REPORT

The purpose of this assessment is to:

- Determine the presence or likely absence of GCN within the waterbodies surveyed.
- Determine the population size-class of GCN, if confirmed to be present.
- Determine if any potential impacts on GCN are likely to arise from the development.
- Provide preliminary advice and outline strategies to avoid / mitigate /compensate for any likely impacts on GCN.

Validity

The details of this report will remain valid for eighteen months until October 2026, after which the validity of this assessment should be reviewed to determine whether further updates are necessary. The

recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or development proposals which this report was based on.

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.

2.0 METHODOLOGY

2.1 HISTORIC SURVEYS

The site was appraised for its suitability to support GCN in November 2024, during a Preliminary Ecological Appraisal (Tetra Tech, 2024) based on the guidance outlined in the Herpetofauna Workers' Manual (Gent & Gibson, 2003) and the Great Crested Newt Conservation Handbook (Langton, et al., 2001).

Previous GCN surveys have been carried out at the site in 2019. eDNA surveys were also undertaken in 2019 and 2022 of the attenuation pond and boundary ditch in the wider site (RPS, 2022).

The findings of the above surveys are discussed in Section 3.1.

2.2 DESK STUDY

The desktop study comprised two elements:

- A data search obtained from South East Wales Biodiversity Records Centre (SEWBRC) in April 2024 of records of GCN within 2km of the site boundary; and
- An online search using: Magic, Defra's interactive, web-based database for statutory designations (<https://magic.defra.gov.uk>) and Ordnance Survey (OS) and Aerial Imagery (<https://www.bing.com/maps>). This included a search for records of any granted GCN EPS licenses within 2 km of the site and any designated sites within 2 km supporting GCN. The search was conducted in April 2025.

2.3 FIELD SURVEYS

Biosecurity

All surveys were conducted in accordance with Tetra Biosecurity Policy (2025a).

Habitat Suitability Index (HSI) Assessment

An HSI Assessment was carried out on D1, P1, P2, P3 and P4 (Figure 2) by Principal Ecologist Becca Grainger Wood, Level 1 GCN licence holder (2016-26340-CLS-CLS) on 12th November 2024. HSI assessments of waterbodies D2, P5, P6, and P7 (Figure 2) were carried out by Consultant Ecologist Fraser McCarter on 16th April 2025.

The HSI approach provides an objective method for assessing the suitability of a waterbody as habitat to support GCN (Baker & Gleed-Owen, 2007) (Oldham, et al., 2001). The system provides an index between 0 and 1, with 0 indicating likely unsuitable habitat and 1 optimal habitat. Ten suitability indices are used to calculate the index score, each representing a factor considered to affect GCN. These factors are listed and briefly explained below:

1. *Location*: i.e. where the pond is located in the British Isles. Lowlands are generally thought to be most suitable; suitability declines with increases in altitude;
2. *Pond area*: i.e., the water surface area of a pond. Suitability peaks at approximately 800 m²;
3. *Pond drying*: how often a particular pond dries out. Ponds which dry out more frequently are less suitable;

4. *Water quality*: an indication of water quality based on the invertebrate diversity present. High invertebrate diversity indicates high water quality and suitability;
5. *Shade*: an estimate of the total shaded perimeter of a pond. Shoreline shade below 60 % is optimal;
6. *Fowl*: indication of impact by waterfowl. High waterfowl numbers are generally considered detrimental;
7. *Fish*: indication of fish abundance. High fish numbers are generally considered detrimental;
8. *Pond count*: based on the density of ponds occurring within 1 km of a particular pond. Suitability is positively correlated with pond density;
9. *Terrestrial habitat*: based on the availability of suitable habitat in the pond vicinity, e.g. rough grassland, scrub and woodland. For this assessment, the categories provided in the NARRS Survey Pack (Baker & Gleed-Owen, 2007) were used. This differs from the assessment criteria by Oldham et al. (2001), and is based on work by Lee Brady (unpublished); and
10. *Macrophytes*: based on an estimate of the percentage cover by emergent and aquatic vegetation. Suitability peaks at between 70 % and 80 % cover.

The results are then compared against a categorical scale developed by Lee Brady (unpublished) to give an overall rating as follows:

- <0.5 = **Poor**
- 0.5 – 0.59 = **Below Average**
- 0.6 – 0.69 = **Average**
- 0.7 – 0.79 = **Good**
- >0.8 = **Excellent**

Presence / Likely Absence Surveys

All surveys were organised by the following Natural Resources Wales (NRW) survey license holders:

- Sean Flynn S095351/1

Accredited agents named on the licence:

- Fraser McCarter

Four initial surveys were undertaken to determine the presence or likely absence of GCN at the waterbodies D1, P2, and P3.

All waterbodies were surveyed at least four times in accordance with the *Great Crested Newt Mitigation Guidelines* (English Nature, 2001) methodology – using three of the survey methods described below (where possible, see Limitations 2.4).

All four surveys were undertaken within the GCN survey season (i.e. between mid-March and mid-June) with two of the four initial surveys undertaken during the ‘peak period’ for GCN activity (i.e. mid-April to mid-May) - see Table 1 for details.

Where GCN presence was confirmed, an additional two survey visits were completed (totalling 6 surveys) to allow an estimate of the population size-class to be made.

The maximum adult count per night per waterbody as recorded through a single survey technique is the number used to inform the population size-class estimate for that waterbody. Where there is a reasonable certainty of a regular interchange of animals between waterbodies (typically those within 250m of each other) counts can be summed across those waterbodies to derive the population size-class of that metapopulation.

The populations are then classified as follows:

- Small for maximum counts up to 10
- Medium for maximum counts between 11 and 100
- Large for maximum counts over 100

Table 1: Survey Dates and Weather Conditions

Survey No.	a.m. / p.m.	Date	Time		Air Temperature (°C)		Wind Speed	Cloud Cover (%)	Precipitation (%)
			Start	End	Initial	Final			
1	p.m.	02/04/2025	18:00	20:40	15	13	Moderate breeze	0	0
	a.m.	03/04/2025	07:00	09:00	7	7	Light breeze	0	0
2	p.m.	08/04/2025	17:30	20:30	15	13	Still	20	0
	a.m.	09/04/2025	07:00	09:00	5	8	Light breeze	20	0
3	p.m.	16/04/2025	18:30	20:10	14	12	Light breeze	40	0
	a.m.	17/04/2025	07:00	09:00	9	10	Still	20	0
4	p.m.	24/04/2025	18:45	21:05	15	13	Light breeze	20	0
	a.m.	25/04/2025	07:00	09:00	10	11	Light breeze	80	0

The following survey methods were used during the survey:

Bottle Trapping

Plastic bottle traps were set around the margins of the waterbodies approximately every 2 m where access allowed, shortly before dusk. The traps were left in-situ overnight and checked & removed the following morning before 10a.m. (wherever possible) for welfare reasons. All surveys were undertaken when the predicted air temperature exceeded 5 °C, when GCN are most active.

Torchlight Survey

This technique involved a visual search for individual newts inhabiting each waterbody. High-powered torches were used to search the waterbodies after nightfall. Waterbody perimeters were walked taking care to count all the individuals seen. To maximise the reliability of this technique, all torch surveys were

conducted on evenings where the air temperature exceeded 5 °C, when newts are generally considered being most active.

Egg Search

GCN eggs were searched for among submerged, floating and other aquatic vegetation. When laying their eggs, GCN fold leaves of aquatic plants around the egg, although dead leaves and a variety of artificial materials are also known to be used. This behaviour is exploited to demonstrate that GCN are breeding in a particular waterbody. However, egg numbers cannot be used to estimate population size due to predation and high mortality rates. In order to limit disturbance, this method is ceased as soon as a GCN egg had been positively identified in a waterbody.

2.4 LIMITATIONS

Waterbody Access

During the first visit P1 was found to be completely inaccessible to be surveyed, due to steep and heavily overgrown banks. No surveys were able to be carried out on P1 during the first visit. This is not considered a significant limitation as P1 and P2 are connected with a large pipe which has enough water to allow for the passage of newts. Therefore, the results of surveys at P2 could be extrapolated and applied to P1. Additionally, this limitation will be mitigated by eDNA surveys which covers both ponds (as a connected waterbody).

Access to P2 was also partially restricted due to overgrown banks. Access was only available to 20 % of the pond's edge, and in some areas the shallow water level prevented bottle traps from being deployed from the bank. This limited the number of bottle traps which could be used, and areas that could be torched. It was decided that, in the circumstances, with the lack of accessibility to the adjoining P1, it was permissible to wade into the pond to access deeper water and to reach less vegetated banks for bottle traps. Entering the water in this way for bottle-trap surveys was considered acceptable in this instance as it only disturbed the water momentarily (increasing the water turbidity and disturbing any newts). Thus, entering the water was not suitable for torching surveys.

Unsuitable Survey Techniques

The ditch onsite (D1) is lined with concrete and held water along its whole length during the first site walkover in November 2024. However, at the time of the GCN surveys in April 2025, the ditch was mostly dry. Additionally, the bottom of the ditch was approximately 1.5 m below ground level and had a safety railing, which restricted access. However, the ditch also connects to a shallow basin which held water therefore, only this area was suitable for bottle-trapping surveys.

Additionally, during the first visit D1 appeared to be too shallow to use bottle-traps as it was heavily vegetated. However, it became clear during subsequent surveys that bottle-traps could be deployed. therefore, D1 did not receive four bottle-trapping surveys, however, this is not perceived as a significant limitation as torching and egg-search surveys were still undertaken. Additionally, D1 returned a negative GCN eDNA result indicating that GCN are not present. It is highly unlikely that the lack of a single bottle-trap survey night would have resulted in a different overall assessment of the waterbody.

Notwithstanding the limitations highlighted above, the survey effort applied is considered sufficient to meet the aims of the survey and this report, in accordance with the aforementioned guidelines.

3.0 RESULTS

3.1 HISTORIC SURVEYS

GCN presence / likely absence surveys were completed on waterbodies to the southeast of the Uskmouth Power Station site by RPS in 2019 which reported the likely absence of GCN within the attenuation pond (P4). Follow up eDNA surveys in 2019 and 2022 returned negative results (RPS, 2022).

3.2 DESK STUDY

The data provided by SEWBRc included 24 records GCN within 2 km of the site. The closest record was from 2017 and was located 2 km north-east of the site. Connectivity between this location and the site is good due to scrub and waterbodies which drain towards the site.

The search of DataMapWales confirmed the site to be 500 m west of habitat with potential to support GCN.

3.3 HABITAT SUITABILITY INDEX ASSESSMENT

Detailed descriptions of each waterbody surveyed are provided in Appendix C along with photographs, see Figure 2 for their location.

HSI assessment details are provided in Appendix D.

Table 2: Waterbody Descriptions & HSI Score

Pond #	Pond Onsite / Offsite	Distance / Direction from Site	HSI Score	HSI Category
D1	Onsite	-	0.64	Average
D2	Offsite	140 m south-east	0.62	Average
P1	Onsite	-	0.69	Average
P2	Onsite	-	0.69	Average
P3	Offsite	65 m south	0.67	Average
P4	Offsite	245 m east	0.25	Poor
P5	Offsite	245 m south-east	0.36	Poor
P6	Offsite	285 m south-east	0.36	Poor
P7	Offsite	160 m south	0.83	Excellent

3.4 eDNA SURVEY

eDNA surveys of the onsite and offsite waterbodies in Table 2 all returned negative results for GCN eDNA. See Appendix E for details of GCN eDNA results from SureScreen Scientific.

3.5 PRESENCE / LIKELY ABSENCE SURVEYS

An overview of the weather conditions during surveys are given in Table 1.

Error! Reference source not found. shows the results from the first four surveys which were conducted to establish presence / likely absence of GCN.

GCN results are presented as either number of adults and juveniles and a yes / no for egg presence. Where a particular survey method was not used, this is indicated as not applicable (N/A) (please see 2.4 Limitations).

Table 3: Presence / Likely Absence Survey Results

Pond	Survey 1			Survey 2			Survey 3			Survey 4		
	Bottle	Torch	Egg	Bottle	Torch	Egg	Bottle	Torch	Egg	Bottle	Torch	Egg
D1	N/A	♂ : 0 ♀ : 0 juv: 0	No	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No
P2	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No
P3	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No	♂ : 0 ♀ : 0 juv: 0	♂ : 0 ♀ : 0 juv: 0	No
Key	♂ = male, ♀ = female, juv = juveniles											

Other Amphibians Recorded

During the surveys other amphibians incidentally observed were also recorded. Table 4 shows the total survey counts of other amphibians recorded in each waterbody during the survey.

This information is considered relevant as it provides further indication of the quality of the habitats for amphibians.

Table 4: Other Amphibians Recorded During Surveying

Pond #	Smooth Newt (<i>Lissotriton vulgaris</i>)	Palmate Newt (<i>Lissotriton helveticus</i>)	Common Frog (<i>Rana temporaria</i>)	Common Toad (<i>Bufo bufo</i>)
D1	30	0	0	0
P2	17	0	1 (Tadpoles observed)	0
P3	5	0	0	0

3.6 SUMMARY OF RESULTS

No GCN have been identified by the traditional presence / absence nor eDNA surveys.

A population of smooth newt have been identified within the three waterbodies during field surveys.

4.0 DISCUSSION

4.1 IMPACTS

As GCN have not been identified on site, it is highly unlikely that site development proposals will result in any impacts to GCN. Surveys did, however, confirm the presence of smooth newts and common frog.

4.2 MITIGATION

No mitigation for GCN is required.

4.2.1 Avoidance

It is recommended that the onsite ponds are retained and protected through the construction and operation of the site as it provides suitable habitat for common amphibians.

4.2.2 Precautionary Working Methods

As no evidence of GCN were found during the surveys, specific mitigation for this species is not required. Precautionary working methods with respect to reptiles has been recommended (Tetra Tech, 2025b) which will also protect any common amphibians found during vegetation clearance.

Precautionary working methods, including vegetation clearance, will be completed under the supervision of a suitably experienced Ecological Clerk of Works (ECoW) in line with Tetra Tech's prior report (Tetra Tech, 2025b).

4.3 ENHANCEMENT

No enhancement for GCN is required.

4.4 MONITORING

No monitoring for GCN is required.

5.0 SUMMARY

Four presence /absence GCN surveys (bottle-trapping, torching, and egg-search) have been carried out on three waterbodies which found no evidence of GCN on site. Further GCN eDNA surveys of eight waterbodies within the vicinity of the site returned negative results. This indicates that GCN are highly likely absent from the site.

On completion of all the actions within the report (and Tetra Tech's associated 2024 and 2025 ecology reports), a proposed development design could be brought forward which will meet the legal requirements set out under ecological legislation and national / local planning policy.

6.0 REFERENCES

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FIGURES

Figure 1 – Site Location Plan

Figure 2 – Water Body Location Plan



Site Location Plan

Uskmouth AW2



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Legend

 Survey areas

Notes:

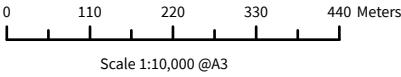
Drawn by: CHRIS.DAWE

Checked by: Becca Grainger-Wood

Figure No. 1

Revision No. A

09 December 2024



British National Grid

NGR: 332573E 183397N

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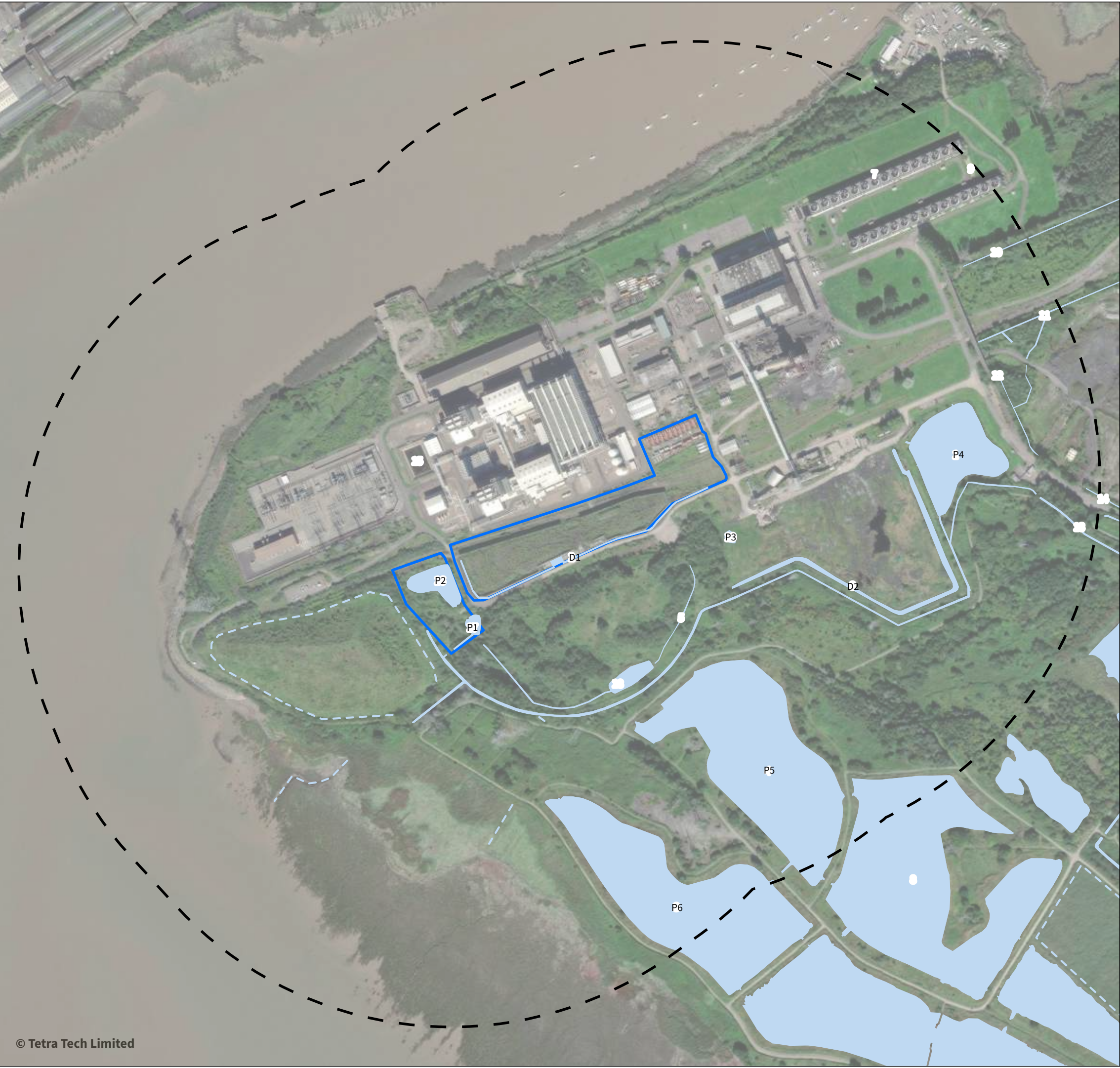




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Waterbody Location Plan

Uskmouth AW2



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Legend

-  Survey Areas
-  Survey Areas 500 m Buffer
-  Waterbody Location
-  Ditch Location

Notes:

Drawn by: AARON.HOWARD
Checked by: Mark Butler

Figure No. 2
Revision No. A
09 January 2025

0 50 100 150 200 Meters
Scale 1:5,000 @A3

British National Grid
NGR: 332547E 183534N

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APPENDICES

APPENDIX A: REPORT CONDITIONS

This Report has been prepared using reasonable skill and care for the sole benefit of AW2 Energy Storage Ltd (“the Client”) for the proposed uses stated in the report by Tetra Tech Limited (“Tetra Tech”). Tetra Tech exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder’s permission.

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The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections'. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The “shelf life” of the Report will be determined by a number of factors including; its original purpose, the Client’s instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.

APPENDIX B: LEGISLATION & POLICY

Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales, and via the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Conservation of Habitats and Species Regulations 2017 (as amended)

The 2018 amendments mainly related to the impact of the *People Over Wind* decision and some implications arising for neighbourhood plan development and a range of other planning tools including Local Development Orders and Permission in Principle – see here for full details:

<https://www.legislation.gov.uk/uksi/2018/1307/note/made>

The 2019 amendments related to the EU exit. Most of these changes involved transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant. The obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change. – see here for full details:

<https://www.legislation.gov.uk/uksi/2019/9780111176573>

The Regulations make it an offence to deliberately capture, kill, disturb or trade in great crested newt.

Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any great crested newt;
- interfere with places used for shelter or protection, or intentionally disturbing great crested newt occupying such places; and
- The Act also prohibits certain methods of killing, injuring, or taking great crested newt.

Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

Local Biodiversity Action Plan (LBAP)

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level) and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision-making process.

APPENDIX C: WATERBODY DESCRIPTIONS AND PHOTOGRAPHS

Waterbody Descriptions & HSI Score

The purpose of these descriptions is to help determine the waterbodies' suitability as breeding habitat for GCN. Therefore, where available, information on water depth, water quality, bank profile, presence of aquatic, emergent and surrounding vegetation, as well as suitability of the surrounding terrestrial habitat has been provided. A grid reference is provided for each waterbody; see Figure 2 for their locations.

#	OS Grid Ref.	Approx. Size	Approx. Distance & Direction from Development	Description	Photograph of Pond	HSI	
						Score	Category
D1	ST 32543 83498	1555 m ²	On boundary of development area.	Drainage ditch located on the eastern and south-western boundary of the site, typically seasonally wet and not flowing. Small basin (75 m ²) connected to the ditch holds water. Colonised by common reed <i>Phragmites australis</i> and buddleia <i>Buddleja davidii</i> .		0.64	Average

AW2 Battery Energy Storage Site
Great Crested Newt Survey Report

D2	ST 32944 83460	542 m ²	140 m south-east – within wider site.	‘Operational drain’ with good marginal vegetation and recently installed coir rolls. Generally fairly shallow with hydrological connectivity to P3. Banks are vegetated with grasses and scrub.		0.74	Good
P1	ST 32431 83415	215 m ²	Within development area.	Located in the south-west of the site, connected to P2 by a large pipe. Steep bank with dense scrub vegetation; buddleia, bramble <i>Rubus fruticosus</i> , common reed, young willow <i>Salix</i> sp., and dogwood <i>Cornus sanguinea</i> . Bank is inaccessible.		0.66	Average
P2	ST 32388 83475	2175 m ²	Within development area.	Located in the west of the site, connected to P1 by a large pipe. Steep bank with dense scrub vegetation; buddleia, bramble common reed, young willow and dogwood. Stairs on the northern bank, and recent vegetation clearance allow access to approximately 20 % of pond edge. Shallow (c. 0.3 m depth) around edge with gravel bottom.		0.66	Average

AW2 Battery Energy Storage Site
Great Crested Newt Survey Report

P3	ST 32799 83517	875 m ²	65 m south – within wider site.	Recently created wildlife pond in wider site with hydrological connectivity to the boundary ditch. Yet to be colonised by vegetation. Very shallow c. 0.5 m depth, turbid from ash spoil it is constructed from.		0.64	Average
P4	ST 33074 83642	10,435 m ²	245 m east – within wider site.	Attenuation pond in wider site with well-vegetated and scrubby banks. Frequently used by waterbirds.		0.22	Poor

AW2 Battery Energy Storage Site
Great Crested Newt Survey Report

P5	ST 32710 83288	7,940 m ²	245 m south-east – within Newport Wetlands RSPB	Large body of water which forms part of the wetlands. Extensive areas of reed bed which supports nesting water birds.		0.36	Poor
P6	ST 32593 83150	7,655 m ²	285 m south-east – within Newport Wetlands RSPB	Large body of water which forms part of the wetlands. Extensive areas of reed bed which supports nesting water birds.		0.36	Poor

AW2 Battery Energy Storage Site
Great Crested Newt Survey Report

P7	ST 32650 83344	542 m ²	160 m south	Small waterbody which receives input from onsite drains. Extensive areas of reed beds.		0.83	Excellent
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APPENDIX D: HABITAT SUITABILITY INDEX

Waterbody - D1 Survey time & date - 12 November 2024 13:10 Surveyor - Becca Grainger Wood Waterbody Status - Present HSI Category - Average HSI Score - 0.67			
Map location	A	Fish population	Possible
Surface area shape	Irregular	Terrestrial habitat	Poor
Surface area size (m ²)	1,555	Shade (%)	0
Desiccation rate	Sometimes	Macrophyte cover (%)	90
Water quality	Poor	Pond density	3
Waterfowl	Minor	Notes	

Waterbody - D2 Survey time & date - 16 April 2025 09:20 Surveyor - Fraser McCarter Waterbody Status - Present HSI Category - Good HSI Score - 0.74			
Map location	A	Fish population	Possible
Surface area shape	Irregular	Terrestrial habitat	Poor
Surface area size (m ²)	542	Shade (%)	30
Desiccation rate	Never	Macrophyte cover (%)	30
Water quality	Moderate	Pond density	9
Waterfowl	Minor	Notes	

Waterbody - P1 Survey time & date - 12 November 2024 12:22 Surveyor - Becca Grainger Wood Waterbody Status - Present HSI Category - Average HSI Score - 0.69			
Map location	A	Fish population	Possible
Surface area shape	Irregular	Terrestrial habitat	Poor
Surface area size (m ²)	691	Shade (%)	40
Desiccation rate	Rarely	Macrophyte cover (%)	20
Water quality	Poor	Pond density	9

Waterfowl	Minor	Notes	
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Waterbody - P2 Survey time & date - 12 November 2024 12:45 Surveyor - Becca Grainger Wood Waterbody Status - Present HSI Category - Average HSI Score - 0.69			
Map location	A	Fish population	Possible
Surface area shape	Ellipse	Terrestrial habitat	Moderate
Surface area size (m ²)	2,835	Shade (%)	10
Desiccation rate	Never	Macrophyte cover (%)	10
Water quality	Poor	Pond density	9
Waterfowl	Minor	Notes	

Waterbody - P3 Survey time & date - 12 November 2024 13:20 Surveyor - Becca Grainger Wood Waterbody Status - Present HSI Category - Average HSI Score - 0.67			
Map location	A	Fish population	Possible
Surface area shape	Ellipse	Terrestrial habitat	Moderate
Surface area size (m ²)	278	Shade (%)	0
Desiccation rate	Rarely	Macrophyte cover (%)	0
Water quality	Poor	Pond density	3
Waterfowl	Minor	Notes	

Waterbody - P4 Survey time & date - 12 November 2024 13:24 Surveyor - Becca Grainger Wood Waterbody Status - Present HSI Category - Poor HSI Score - 0.25			
Map location	A	Fish population	Possible
Surface area shape	Irregular	Terrestrial habitat	Moderate
Surface area size (m ²)	1	Shade (%)	0
Desiccation rate	Never	Macrophyte cover (%)	10
Water quality	Poor	Pond density	9
Waterfowl	Major	Notes	

Waterbody - P5			
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Survey time & date - 16 April 2025 10:22 Surveyor – Fraser McCarter Waterbody Status - Present HSI Category - Poor HSI Score - 0.36			
Map location	A	Fish population	Possible
Surface area shape	Irregular	Terrestrial habitat	Good
Surface area size (m ²)	7,940	Shade (%)	0
Desiccation rate	Never	Macrophyte cover (%)	60
Water quality	Moderate	Pond density	9
Waterfowl	Major	Notes	

Waterbody – P6 Survey time & date - 16 April 2025 10:35 Surveyor – Fraser McCarter Waterbody Status - Present HSI Category - Poor HSI Score - 0.36			
Map location	A	Fish population	Possible
Surface area shape	Irregular	Terrestrial habitat	Good
Surface area size (m ²)	7,655	Shade (%)	0
Desiccation rate	Never	Macrophyte cover (%)	60
Water quality	Moderate	Pond density	9
Waterfowl	Major	Notes	

Waterbody – P7 Survey time & date - 16 April 2025 09:42 Surveyor – Fraser McCarter Waterbody Status - Present HSI Category - Excellent HSI Score - 0.83			
Map location	A	Fish population	Possible
Surface area shape	Ellipse	Terrestrial habitat	Good
Surface area size (m ²)	542	Shade (%)	0
Desiccation rate	Never	Macrophyte cover (%)	40
Water quality	Moderate	Pond density	9
Waterfowl	Minor	Notes	

APPENDIX E: GCN eDNA SURVEY RESULTS