



# Connah's Quay Low Carbon Power

## Environmental Statement Volume IV Appendix 11-F: Reptile Desk Study

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# 1. Introduction

## 1.1 Background

- 1.1.1 This report accompanies **Chapter 11: Terrestrial and Aquatic Ecology (EN010166/APP/6.2.11)** of the Environmental Statement (ES) for the Connah's Quay Low Carbon Power Project, Flintshire (hereafter the 'Proposed Development')
- 1.1.2 This report describes the approach and interim findings of the reptile desk study carried out in support of the Ecological Impact Assessment (EclA) of the Proposed Development.
- 1.1.3 This report focuses on the Order limits excluding the Accommodation Work Areas (hereafter known as the Construction and Operation Area). This area is shown on **Figure 3-3: Areas Described in the Environmental Statement (EN010166/APP/6.3)** sheets 6 to 8 and Plate 3-2 of **Chapter 3: Location of the Proposed Development (EN010166/APP/6.2.3)**.
- 1.1.4 The Accommodation Works Areas are considered in **Appendix 5-A: Environmental Screening of Accommodation Works (EN010166/APP/6.4)**.

## 1.2 Scope of this Report

- 1.2.1 The purpose of this report is to provide reptile baseline technical information only, based on a desk-based review of the available reptile data gathered within the Study Area (see Section 3) and Construction and Operation Area. Specifically, this report identifies and locates the habitats within the Proposed Development that are suitable for reptiles, clarifies the relevant species, and provides an evaluation of the nature conservation importance of the reptile populations present.
- 1.2.2 The purpose of this report is to provide great crested newt baseline technical information only, based on data gathered to date. It does not seek to, specify mitigation or make an EclA of the Proposed Development. The formal EclA is provided as **Chapter 11: Terrestrial and Aquatic Ecology (EN010166/APP/6.2.11)**.
- 1.2.3 The 'Study Area' referenced within this report is defined within Section 3.
- 1.2.4 The scope of this report does not include the CO<sub>2</sub> Connection Corridors. Whilst this area contains habitats potentially suitable for reptiles, the potential impacts and effects would be temporary, so there would be no permanent loss of habitat for reptiles. Construction activities within this grazed modified grassland will be conducted under a method statement so that reptiles are not adversely affected.

## 2. Legislation

- 2.1.1 **Appendix 7-A: Legislative, Policy and Guidance Framework for Technical Topics (EN010166/APP/6.4)** provides detail on the legislation that is of direct relevance to the assessment of ecology.
- 2.1.2 Smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) are European Protected Species (EPS), protected under The Conservation of Habitats and Species Regulations 2017 (as amended) (hereafter 'the Habitats Regulations') (Ref 1). It is an offence to:
- deliberately kill, injure, disturb or capture them;
  - deliberately take or destroy their eggs;
  - damage or destroy their breeding sites and resting places (including when the smooth snakes or sand lizards are not present);
  - possess, control or transport them (or any part, alive or dead); and
  - sell, offer, or publish an advert to sell them.
- 2.1.3 It is also an offence under the Wildlife and Countryside Act 1981 (as amended) (Ref 2) to intentionally or recklessly:
- disturb them while they occupy a structure or place used for shelter or protection;
  - obstruct access to a place of shelter or protection;
  - possess or transport them (or any part, alive or dead); and
  - sell, offer, or publish an advert to sell them.
- 2.1.4 For all other native reptile species i.e. adder (*Vipera berus*), grass snake (*Natrix helvetica*), common lizard (*Zootoca vivipara*), viviparous lizards (*Zootoca vivipara*) and slow worm (*Anguis fragilis*), it is an offence under the Wildlife and Countryside Act 1981 (Ref 2) (as amended) to intentionally kill or injure them, possess or transport them (or any part, alive or dead), sell, offer or publish an advert to sell.
- 2.1.5 Licenses to permit otherwise illegal activities relating to smooth snake and sand lizard can be issued for specific purposes and by the relevant licensing authority, which in Wales is Natural Resources Wales (NRW). These EPS Mitigation Licenses (EPSMLs) are issued under the Habitats Regulations (Ref 1). It is an offence not to comply with the terms and conditions of an EPSML once issued.
- 2.1.6 In some circumstances a license may also need to be obtained to permit mitigation for other reptile species e.g. where trapping and translocation is required.
- 2.1.7 All native reptiles are highlighted as Priority Species within Section 7 of the Environment (Wales) Act 2016 (Ref 3).
- 2.1.8 Sand lizards are mentioned in the Flintshire Local Biodiversity Duty plan (Ref 4) making sand lizards a local biodiversity action plan (LBAP) species.

## 3. Methodology

### 3.1 Desk Study

- 3.1.1 All recent records for reptiles and designated sites relating to reptiles were requested from Cofnod - the Local Environmental Records Centre (Ref 5) for North Wales within 2 km of the Construction and Operation Area (hereafter known as the study area). This distance is considered appropriate to obtain an indication of reptile presence within the wider landscape. With regard to desk study data, 'recent' records are considered to be those no older than 10 years from the date of the desk study (requested March 2024). Records outside of this period are historical and have only been reported where more recent records for a species do not exist.
- 3.1.2 Reptile data was also obtained from a recent presence/likely absence survey conducted by Aspect Ecology in 2022 within the Main Development Area and the Construction & Indicative Enhancement Area (C&IEA) (**Annex B**, Ref 6, Ref 7, Ref 8, & Ref 9) (hereafter referred to as the Survey Area). Incidental records of reptiles made during ecological surveys by AECOM in 2024 have also been collated.
- 3.1.3 Information regarding habitats on Survey Area was sourced from **Appendix 11-C: Botanical Technical Appendix (EN010166/APP/6.4)**. This report has been used to inform the review of habitat suitability for reptiles, and it should be referred to for a more detailed overview of the Construction and Operation Area conditions and habitats present.

### 3.2 Limitations and Assumptions

- 3.2.1 Information obtained during a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular species does not necessarily mean that the species do not occur in the Study Area. Likewise, the presence of records for species does not automatically mean that these still occur within the area of interest or are relevant in the context of the Proposed Development Site.

### 3.3 Evaluation of Ecological Importance

- 3.3.1 Evaluation of ecological importance of identified ecological features within a site is required to inform an EclA. This report provides an evaluation of the relative nature conservation importance of the reptile species and populations that could be affected by the Proposed Development, and the impact assessment is presented in **Chapter 11: Terrestrial and Aquatic Ecology (EN010166/APP/6.2.11)**.
- 3.3.2 The method of evaluation of ecological importance is presented in **Appendix 11-A: Ecological Impact Assessment Methodology (EN010166/APP/6.4)**.

## 4. Results

### 4.1 Designated Sites

- 4.1.1 There are no designated sites within the Study Area that have been designated for reptiles.

### 4.2 Review of Habitat Suitability for Reptiles

- 4.2.1 It was concluded by the Preliminary Ecological Appraisal Report (Annex F of **Appendix 11-C: Botanical Technical Appendix (EN010166/APP/6.4)**) that there was potential for small numbers of common reptiles to be present within the Construction and Operation Area, especially within areas of less managed semi-natural habitat.
- 4.2.2 The habitats within the Construction and Operation Area that were identified as suitable for reptiles included open grassland, scrub, wetlands, woodlands, gardens, open mosaic habitat, and hedgerows. These habitats, which are located within the Main Development Area and the C&IEA (the Survey Area), could be used by the more widespread species of native reptile (as named in paragraph 2.1.4) but they are unsuitable for smooth snake and sand lizard. These latter two species are therefore not likely to occur and consequently they are not considered further within this report.
- 4.2.3 The Main Development Area was originally found to be sub-optimal for supporting grass snake and common lizard, being heavily grazed and uniform pasture. However, the land immediately adjacent to the Main Development Area was considered more suitable – particularly the western area where ponds and more rank grassland, woodland glades, tall ruderal vegetation and scrub occurred. These habitats provided a mosaic of foraging, basking, commuting and shelter habitats suitable to support these species throughout the year.
- 4.2.4 The C&IEA provided an open mosaic of wetland, grassland and woodland edge habitats, which were considered optimal for grass snake and common lizard. The variety of habitats present afford opportunities for shelter, basking and foraging.
- 4.2.5 The above areas connect to suitable off-site habitats adjacent to the Order limits, that Flintshire County Council advised (Ref 10) was known to support populations of native reptile species.
- 4.2.6 The remaining areas of the Construction and Operation Area were mostly hard standing, with negligible value to native reptile species.

### 4.3 Reptile Records

- 4.3.1 Cofnod returned nine records of grass snake and 15 records of common lizard. The closest grass snake record is approximately 0.4 km west of the Order limits. The closest record for common lizard is approximately 0.9 km east of the Order limits. The locations of these records are shown in **Figure 11F-1 (Annex A)**.
- 4.3.2 The 2022 presence/likely absence survey by Aspect Ecology (**Annex B**) targeted the Main Development Area and C&IEA, which are the locations

within the Order limits containing habitat with potential to support reptiles (see Section 4.2). This survey recorded the presence of common lizard within the C&IEA, with a peak count of two common lizards across the survey. Based on this, it was concluded that a small population of common lizard used habitats within the C&IEA. No reptiles were recorded during the surveys at the Main Development Area.

- 4.3.3 Two incidental records of reptiles were made by AECOM within the Main Development Area in the spring and summer of 2024. These were a deceased grass snake and a living grass snake. The locations of these sightings are shown in **Figure 11F-2** in **Annex A**. The living snake was found just south-east from the centre of the Main Development Area. The deceased snake was found near the ponds on the western boundary of the Main Development Area.

## 5. Evaluation

### 5.1 Evaluation of Ecological Importance

#### Grass Snake

- 5.1.1 The two incidental sightings of grass snake confirm that they have been present within the Main Development Area in the last 12 months. It is possible that grass snake is present in small numbers within the Main Development Area (given the results of the Aspect Ecology survey, **Annex B**) at levels below the ability to reliably detect them through survey.
- 5.1.2 The small population of grass snake within the Main Development Area is assessed as having local nature conservation importance. This assessment will be reviewed once further data has been gathered (refer to Section 5.2).

#### Common Lizard

- 5.1.3 The survey conducted by Aspect Ecology in 2022 confirmed the presence of a small common lizard population within the C&IEA. This population is assessed as having local nature conservation importance. This assessment will be reviewed once further data has been gathered (refer to Section 5.2).

### 5.2 Future Survey Requirements

- 5.2.1 In a project meeting held on 22 January 2025, a Flintshire County Council representative concluded that there have been other developments between the railway and the Dee River which have reported high populations of common lizard present in their habitats (Ref 10).
- 5.2.2 This engagement concluded with advice to undertake further surveys for reptiles within the Main Development Area and C&IEA given the evidence summarised in Section 4.3. Irrespective of the data gathered to date, the proximity and similarity of the habitats present in the two areas led Flintshire County Council to consider that the presence of grass snake and common lizard could not be ruled out within the C&IEA and Main Development Area respectively.
- 5.2.3 To address the concerns of Flintshire County Council, the following survey work (which aligns with current good practice guidance (Ref 11 & Ref 12)), is being undertaken in 2025 to update the reptile surveys conducted to date, and inform the specification of a reptile receptor site for the Proposed Development:
- reptile refuges should be deployed within the C&IEA and Main Development Area at a density of 10 refuges per hectare then allowed to bed in for 2 weeks.
  - twenty survey visits should be conducted to check the refuges from Mid-March to Late September (excluding July and August). Visits should be conducted at least 2 days apart and the period between the first and last visit should be at least 30 days.

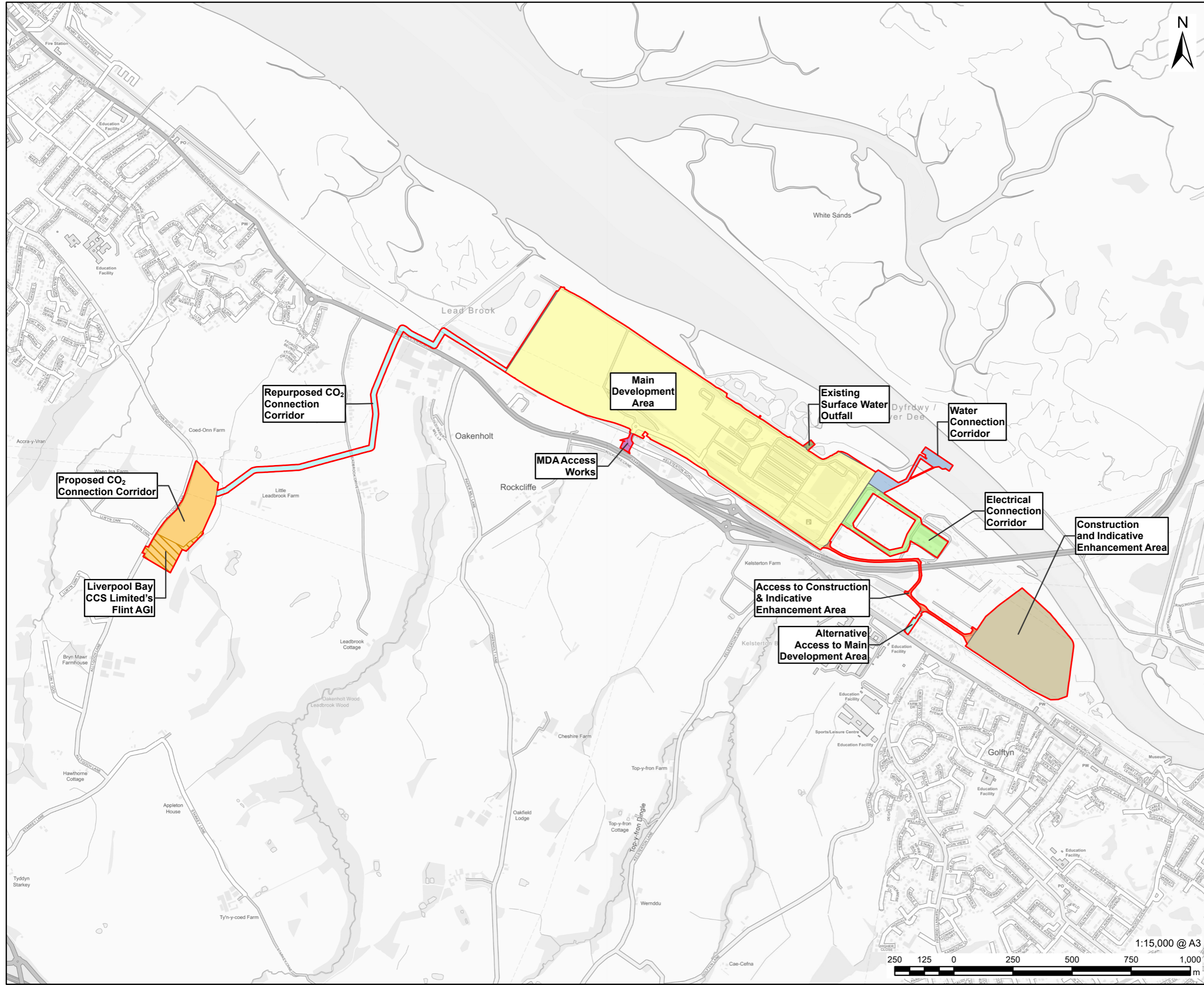
## 6. Summary

- 6.1.1 A review of available data has been undertaken to evaluate the suitability of the habitats present within the Construction and Operation Area to support native reptile species, and to agree with Flintshire County Council the requirements for further surveys.
- 6.1.2 Habitats within the Main Development Area and C&IEA have been evaluated as being of local nature conservation value to common reptile species (grass snake and common lizard). The wider Construction and Operation Area does not contain habitats likely to support populations of reptiles, or otherwise (in the case of the CO<sub>2</sub> Connection Corridor) the potential impacts on reptiles would be temporary and appropriate mitigation measures can be applied without a need to undertake reptile surveys.
- 6.1.3 Further survey work is being conducted between Mid-March to Late September 2025 to assess the presence/likely absence of reptiles within the C&IEA and Main Development Area. Once these surveys are complete this assessment will be reviewed and an updated Reptile Technical Appendix provided.

## References

- Ref 1. UK Government (2017) The Conservation of Habitats and Species Regulations 2017.
- Ref 2. UK Government (1981). Wildlife and Countryside Act (as amended) 1981. UK Public General Acts 1981 c.69. Available online at: <https://www.legislation.gov.uk/ukpga/1981/69/contents> (Accessed 31/07/2025).
- Ref 3. UK Government (2016) Environment (Wales) Act 2016.
- Ref 4. Flintshire County Council (2020) Supporting Nature in Flintshire: Our plan to maintain and enhance biodiversity under the Environment (Wales) Act 2016. Available online: <https://www.flintshire.gov.uk/en/PDFFiles/Countryside--Coast/Biodiversity/Flintshire-County-Council-Environment-Act-Section-6-Biodiversity-Duty-Delivery-Plan-update-2020.pdf> (Accessed 31/07/2025).
- Ref 5. Cofnod North Wales Environmental Information Service (n.d.)
- Ref 6. Aspect Ecology (2023) Connah's Quay Power Station: Northern Land Parcel: Phase 1 Habitat and Faunal Surveys
- Ref 7. Aspect Ecology (2023) Connah's Quay Power Station: Southern Land Parcel: Phase 1 Habitat and Faunal Surveys.
- Ref 8. Aspect Ecology (2023) Connah's Quay Power Station: Northern Land Parcel: Reptile Surveys
- Ref 9. Aspect Ecology (2023) Connah's Quay Power Station: Southern Land Parcel: Reptile Surveys.
- Ref 10. Flintshire County Council (2025) Project meeting regarding requirements for further surveys within Connah's Quay Low Carbon Power Site boundary [Meeting Minutes]. 22 January 2025.
- Ref 11. Froglife (1999). Reptile Survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Halesworth.
- Ref 12. Joint Nature Conservation Committee (2003). Herpetofauna Workers Manual.

# Annex A: Figures



**LEGEND**

- Construction and Operation Area
- Main Development Area
- Repurposed CO<sub>2</sub> Connection Corridor
- Proposed CO<sub>2</sub> Connection Corridor
- Water Connection Corridor
- Electrical Connection Corridor
- Surface Water Outfall Area
- MDA Access Works
- Access to Construction & Indicative Enhancement Area
- Alternative Access to Main Development Area
- Construction & Indicative Enhancement Area
- Liverpool Bay CCS Limited's Flint AGI

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**ISSUE PURPOSE**  
 Environmental Statement

**DATE**  
 July 2025

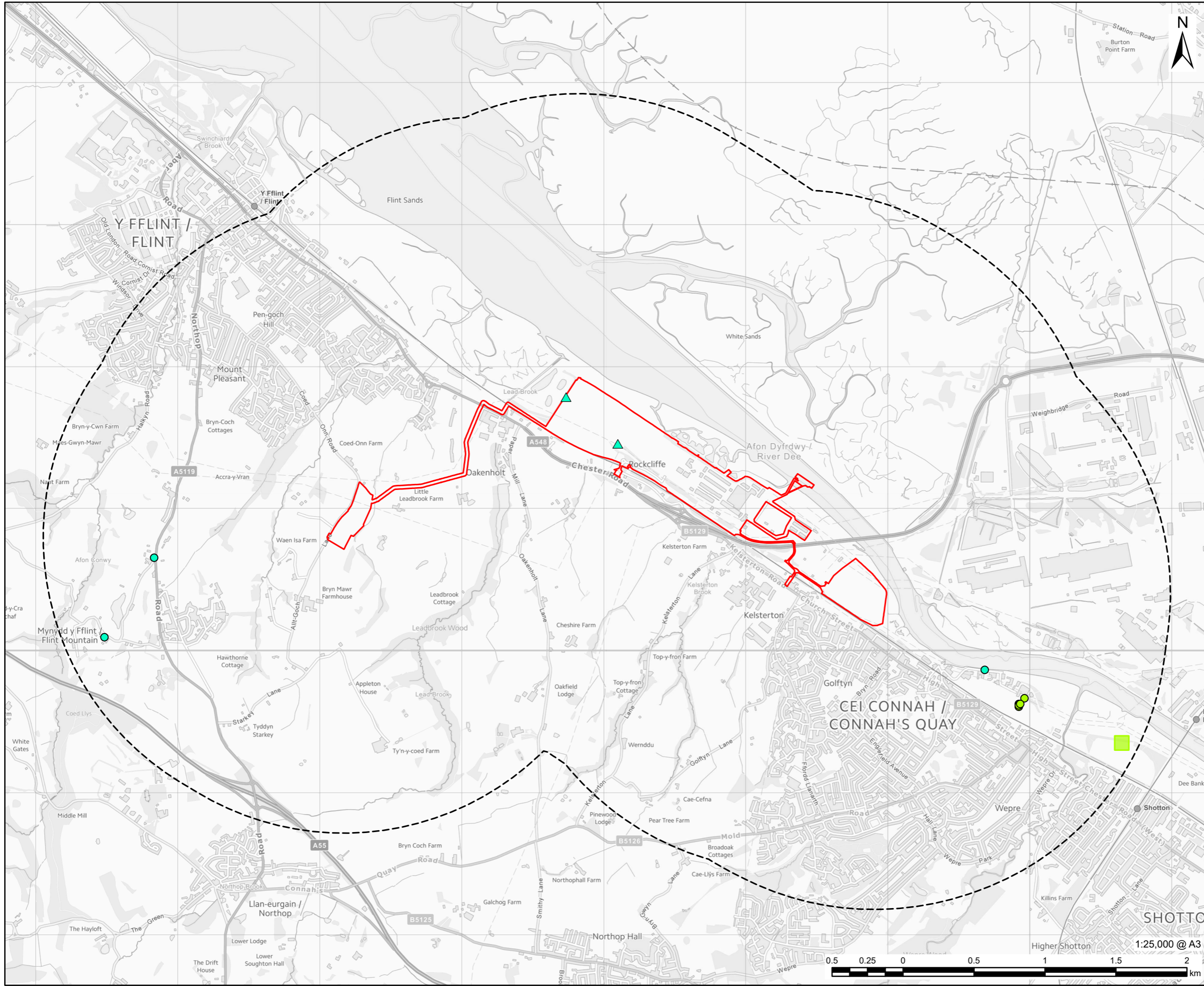
**PROJECT NUMBER**  
 60717119

**FIGURE TITLE**  
 Survey Area

**FIGURE NUMBER**  
 Figure 11F-1



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**PROJECT**  
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- LEGEND**
- Construction and Operation Area
  - 2km Study Area
  - Field Survey Record**
  - ▲ Reptile - Grass Snake
  - Category 1 Species**
  - 1m to 10m Accuracy**
  - Reptile - Common Lizard
  - Reptile - Grass Snake
  - 100m Accuracy**
  - Reptile - Common Lizard

**NOTES**

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Records provided by Cofnod for Ecological Records Search Request. Due to the accuracy of the grid reference supplied some records are approximate. Any records with a grid reference accurate to a 100m square or less have been represented by a polygon rather than a point.

**ISSUE PURPOSE**  
 Environmental Statement

**DATE**  
 July 2025

**PROJECT NUMBER**  
 60717119

**FIGURE TITLE**  
 Desk Study Information

**FIGURE NUMBER**  
 Figure 11F-2

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# Annex B: Aspect Ecology Report

Connah's Quay Power Station:  
Northern Land Parcel

## Reptile Surveys

July 2023

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Plan 6322/ECO2	Ecological Designations
Plan 6322/ECO3	Habitats and Ecological Features
Plan 6322/ECO4	Reptile Transect Locations

## Appendices:

Appendix 6322/1	Evaluation Methodology
Appendix 6322/2	Legislation Summary
Appendix 6322/3	Survey Data

## Executive Summary

- i) **Introduction.** Aspect Ecology was commissioned by Uniper UK Ltd in July 2021 to undertake baseline ecological surveys of the Northern Land Parcel at Connah's Quay Power Station, Connah's Quay, Flintshire.
- ii) **Survey.** A desk study was undertaken in August 2021 sourcing biological records from the area of the site, including records of reptiles. The site contains habitat with the potential to support reptiles. Reptile surveys were subsequently undertaken at the site in May 2022 in accordance with standard methodology.
- iii) **Desk Study.** The site lies adjacent to the statutory designation Dee Estuary (SPA, Ramsar and SAC). This is a vast site which extends substantially from the site's northern and western boundaries. Reptiles are not a reason for the designation of this site, nor are they mentioned in the citations of any other statutory or non-statutory ecological designations in the wider area of the site. The desk study returned a single record of one Common Lizard from within the 2km search area, dating from 2013.
- iv) **Survey Findings.** The surveys found no reptiles to be present within the site on any survey occasion. It is therefore concluded that reptiles are likely to be absent from the site.
- v) **Conclusions.** Reptiles are likely to be absent from the site. No further actions are required in respect of reptiles should works be undertaken at the site.

# 1 Introduction

## 1.1 Background and Proposals

1.1.1 Aspect Ecology was commissioned by Uniper UK Ltd in July 2021 to undertake baseline ecological surveys of the Northern Land Parcel at Connah's Quay Power Station, Connah's Quay, approximately centred at grid reference SJ 270 716 (see Plan 6322/ECO1), hereafter referred to as 'the site'.

1.1.2 Because of the presence of suitable habitat to support reptiles within the site, and the return of one record of reptiles from the desk study, reptile surveys were undertaken in May 2022.

## 1.2 Site Overview

1.2.1 The site is located in north-east Flintshire in North Wales (see Plan 6322/ECO1). The site is bounded to the north-east by the River Dee, beyond which extend large areas of open wetland associated with the River Dee Estuary. Connah's Quay Power Station is located immediately adjacent to the site's south-eastern boundary and a railway line and industrial development, with associated planting, forms the site's southern boundary.

1.2.2 The site itself comprises grassland fields with roads, treelines, hedgerows, along with areas of scrub and tall ruderal vegetation.

## 1.3 Purpose of the Report

1.3.1 This report documents the methods and findings of the desk study in relation to reptiles, and the reptile surveys carried out. The importance of the site for reptiles is evaluated.

## 2 Methodology

### 2.1 Desktop Study

- 2.1.1 Background information relevant to the site and its immediate surroundings to a distance of 2km was sourced from the North Wales Environmental Information Service (Cofnod) in August 2021. The data obtained comprised information on designated sites and species records.
- 2.1.2 Information on statutory designations was obtained from the MAGIC database<sup>1</sup>, which uses data provided by Natural England, from within an extended search area of 25km. The MAGIC database was also searched for the presence of Priority Habitats within or adjacent to the site. Relevant information is shown on Plan 6322/ECO2.

### 2.2 Reptile Surveys

#### *Presence/Absence Survey*

- 2.2.1 The site was surveyed in August 2021 to assess the general ecological value of the land and to identify the main habitats and ecological features present. Habitats present are shown on Plan 6322/ECO3.
- 2.2.2 Because of the presence of habitats suitable to support reptiles, a reptile survey was subsequently undertaken in May 2022. The survey set out to confirm whether or not reptiles were present at the site, and to estimate the sizes of any populations present.
- 2.2.3 The reptile survey was undertaken in accordance with standard guidance<sup>2</sup>. A total of 125 50x50cm sheets of thick roofing felt were placed within areas of suitable habitat within the site to serve as artificial refugia (see Plan 6322/ECO4). This corresponds to an approximate density of 5.5 refugia per hectare of suitable habitats, which corresponds to the recommended five to ten refugia per hectare.
- 2.2.4 Refugia provide sheltering sites for reptiles that will tend to heat up more quickly than their surroundings in the morning and remain warmer than their surroundings into the late afternoon. Reptiles bask on and beneath refugia so as to raise their body temperature, enabling them to forage. The survey method is based on checking for the presence of reptiles on or beneath refugia in the morning or evening when basking reptiles are most likely to be observed.
- 2.2.5 The refugia were deployed and left undisturbed for 1-2 weeks prior to the first survey visit to allow reptiles to find and make use of them. Following this initial settling period, all refugia were checked for the presence of reptiles on seven occasions during optimal weather conditions (taken as not during continual heavy rain or strong winds, ambient temperature 9-18°C). Weather conditions during the survey visits are shown in Table 2.1 below.

<sup>1</sup> Multi-Agency Geographic Information for the Countryside (MAGIC), <https://magic.defra.gov.uk/>

<sup>2</sup> Froglife Advice Sheet 10 (1999) 'Reptile Survey - an introduction to planning, conducting and interpreting surveys for snake and lizard conservation.'

**Table 2.1.** Reptile survey dates and weather conditions.

Survey Date	Weather Conditions			
	Wind (BF)	Temp(°C)	Cloud Cover (%)	Precipitation
06/05/2022	3	16-17	0	Dry
09/05/2022	3	16	75	Dry
12/05/2022	3	14-16	65	Dry
16/05/2022	3	18-20	100	Light Rain
20/05/2022	2	14-16	10	Dry
23/05/2022	2	13-14	100	Showers
25/05/2022	3	17	100	Damp

BF = Beaufort Force: BF0 = calm, BF12 = hurricane force

## 2.3 Survey Constraints and Limitations

2.3.1 Conditions during the survey undertaken on 16<sup>th</sup> May 2022 were outside the optimum recommended survey conditions, with a recorded temperature of 18-20°C. However, as weather conditions were overcast with light rain, despite the high temperature the refugia did not heat up substantially. It is likely that conditions for reptiles at the refugia were therefore not substantially different to those during other surveys.

## 2.4 Ecological Evaluation Methodology

2.4.1 The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018)<sup>3</sup>, which involves identifying 'important ecological features' within a defined geographical context (i.e. international, national, regional, county, district, local or site importance). Further detail is provided in Appendix 6322/2.

## 2.5 National Policy Approach to Biodiversity in the Planning System

2.5.1 National Planning Policy in Wales is set out in Planning Policy Wales (PPW)<sup>4</sup>. This describes policies designed to maximise environmental protection and limit environmental impact including the promotion of resilient biodiversity and ecosystems, citing biodiversity as an element in the delivery of distinctive and natural places, and ensuring environmental sustainability through good design.

2.5.2 PPW sets out a framework for the sustainable management of natural resources, which within which the planning system contribute by:

- *improving the resilience of ecosystems and ecological networks;*
- *halting and reversing the loss of biodiversity;*
- *maintaining and enhancing green infrastructure based on seeking multiple ecosystem benefits and solutions;* amongst other measures.

<sup>3</sup> CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', ver. 1.1, Chartered Institute of Ecology and Environmental Management, Winchester

<sup>4</sup> Llywodraeth Cymru/Welsh Government (2021). 'Planning Policy Wales', Edition 11, February 2021.

2.5.3 PPW embeds the protection and enhancement of biodiversity within all components of the planning system in Wales, stating that:

*'Biodiversity loss should be reversed, pollution reduced, environmental risks addressed and overall resilience of ecosystems improved.'*

2.5.4 The approach to dealing with biodiversity in the context of planning applications is set out on Section 6.4, stating:

*'The planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement.'*

and

*'Development plan strategies, policies and development proposals must consider the need to:*

- support the conservation of biodiversity, in particular the conservation of wildlife and habitats;*
- ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;*
- ensure statutorily and non-statutorily designated sites are properly protected and managed;*
- safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and*
- secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.'*

*'All reasonable steps must be taken to maintain and enhance biodiversity and promote the resilience of ecosystems and these should be balanced with the wider economic and social needs of business and local communities. Where adverse effects on the environment cannot be avoided or mitigated, it will be necessary to refuse planning permission.'*

2.5.5 PPW does not currently mandate a target for Biodiversity Net Gain, but does set out that:

*'...development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity;'*

*'...planning decisions should incorporate measures which seek the creation, restoration and appropriate management of green networks and linkages between habitats and maintaining and enhancing other green infrastructure features and networks'.*

2.5.6 The above approach encapsulates the 'mitigation hierarchy' described in British Standard BS 42020:2019<sup>5</sup>, which involves the following step-wise process:

- **Avoidance** – avoiding adverse effects through good design;
- **Mitigation** – where it is unavoidable, mitigation measures should be employed to minimise adverse effects;
- **Compensation** – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm; and
- **Enhancement** – planning decisions often present the opportunity to deliver benefits for biodiversity, which can also be explored alongside the above measures to resolve potential adverse effects.

2.5.7 The measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development (BS 42020:2019, section 5.5).

## 2.6 Local Policy

2.6.1 The Local Policy for Cyngor Sir y Fflint Flintshire County Council is currently set out within the 'Flintshire Local Development Plan 2015 - 2030 (Adopted January 2023)'. Policies that relate specifically to ecology and biodiversity are set out below.

2.6.2 Policy EN2: Green Infrastructure

*"Development proposals will be required to protect, maintain and enhance the extent, quality and connectivity of the green infrastructure network, including designated and non-designated green spaces (as shown on the proposals maps and listed in the table below), and where appropriate:*

- a. Create new green infrastructure linkages from the proposed development to the existing local network;*
- b. Fill in gaps in the existing network to improve connectivity.*

*Where the loss or damage of existing green infrastructure is unavoidable, appropriate mitigation and compensation will be required."*

2.6.3 Policy EN3: Undeveloped Coast and Dee Estuary Corridor states:

*"Within the undeveloped coast development will only be permitted where:*

- a. It can be demonstrated a coastal location is essential;*
- b. It conserves and enhances the open character of the coast;*
- c. It would not unacceptably harm areas of nature conservation, landscape or biodiversity;*
- d. It would not harm existing or proposed recreational or active travel routes;*
- e. Extensive coastal protection measures are not required; and*

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<sup>5</sup> British Standards Institution (2013) 'Biodiversity – Code of practice for planning and development', BS 42020:2019

- f. It would not be potentially at risk of flooding nor unacceptably increase erosion or flooding or interfere with natural coastal processes."*

2.6.4 Policy EN6: Sites of Biodiversity and Geodiversity Importance states:

*"Development will not be permitted that would result in an adverse effect on the integrity of sites of international nature conservation importance. Proposals where adverse effects on site integrity cannot be ruled out would not be supported.*

*Development likely to impact the special features of a Nationally Designated Site will only be granted in exceptional circumstances where appropriate compensation can be provided. Development proposals that would have a significant adverse effect on locally designated sites or site with other biodiversity and / or geological interest, including priority species, will only be permitted where:*

- a. it can be demonstrated that the need for the development outweighs the biodiversity or geological importance of the site; and*
- b. it can be demonstrated that the development cannot reasonably be located elsewhere; and*
- c. any unavoidable harm is minimised by effective mitigation to ensure that there is no reduction in the overall biodiversity value of the area. Where this is not feasible compensation measures designed to create, restore and enhance biodiversity must be provided.*

*Development that results in the restoration, enhancement and creation of habitats will be supported especially where this promotes the resilience of ecosystems."*

2.6.5 Policy EN7: Development Affecting Trees, Woodlands and Hedgerows states:

*"Development proposals that will result in significant loss of, or harm to, trees, woodlands or hedgerows of biodiversity, historic, and amenity value will not be permitted.*

*Where the impact of development affecting trees, woodlands or hedgerows is considered acceptable, development will only be permitted where:*

- a. the development maximises their retention through sensitive design*
- b. measures; and*
- c. where the removal of trees is considered necessary, suitable replacements*
- d. shall be provided elsewhere within the site; and*
- e. it results in a net benefit in biodiversity."*

2.6.6 Policy EN7: Development In or Adjacent to Conservation Areas states:

*"Development within or adjacent to a conservation area will only be permitted if it would preserve or enhance the character and appearance of the conservation area or its setting. New development in such locations must also be of a high standard of design, respond to the area's special characteristics, and pay particular regard to:*

- a. *important views, vistas, street scenes, roofscapes, trees, open spaces, gaps and other features that contribute to the character or appearance of the conservation area;*
- b. *the retention of historically significant boundaries or other elements that contribute to the established form of development;*
- c. *the relationship to existing buildings and spaces, and pattern of development;*
- d. *scale, height and massing, architectural design and detailing, the use of materials, boundary treatment, and public realm materials.”*

## 3 Reptiles

### 3.1 Legislation

- 3.1.1 All six species of British reptile are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which protects individuals against intentional killing or injury. Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca* receive additional protection under the Conservation of Habitats and Species Regulations 2017 (as amended) (see Appendix 6322/2 for detailed provisions). All six reptile species are also S41 Priority Species.

### 3.2 Background Records

- 3.2.1 The desk study returned only one record of a reptile from within 2km of the site. This record, dating from 2013, was of a single Common Lizard *Zootoca vivipara* and was located at distance from the site.

### 3.3 Survey Results

- 3.3.1 No reptiles were recorded during any of the surveys undertaken at the site. It is therefore concluded that reptiles are likely to be absent from the site.
- 3.3.2 Survey forms recording each survey visit are provided in Appendix 6322/3.

### 3.4 Evaluation

- 3.4.1 The data obtained from the desk study and surveys indicates that reptiles are likely to be absent from the site. No further consideration of reptiles is required in relation to potential works at the site.

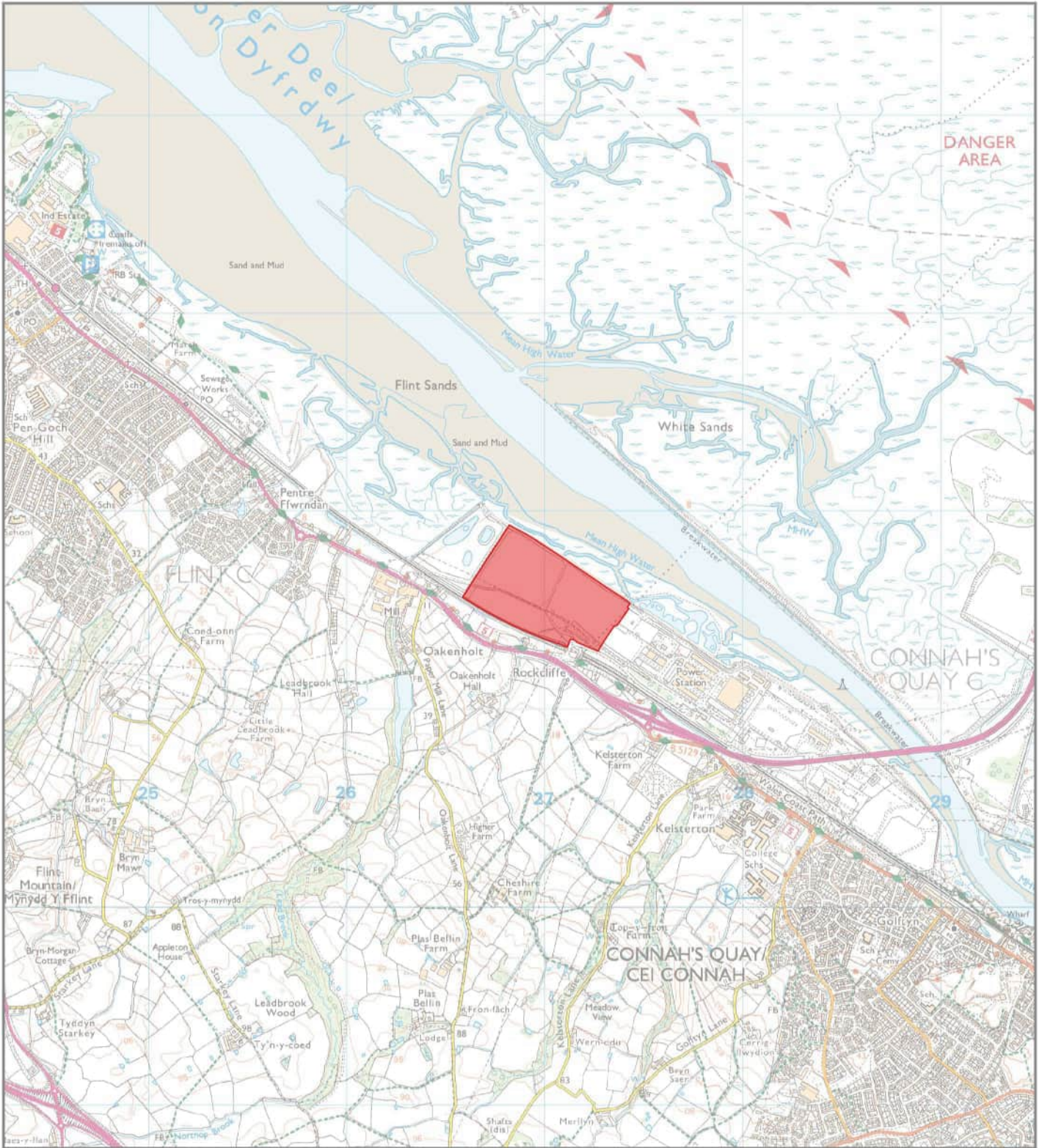
## 4 Summary

- 4.1.1 A desk study, habitat survey and surveys for reptiles have been carried out at the site.
- 4.1.2 The desk study returned a single record of Common Lizard from within the 2km search area, and habitat with the potential to support reptiles was confirmed to be present within the site.
- 4.1.3 Surveys for reptiles undertaken in May 2022 found no reptiles to be present within the site.
- 4.1.4 It is concluded that reptiles are likely to be absent from the site. Reptiles are therefore not considered to be a constraint to any works that may be undertaken at the site.

## **Plan 6322/ECO1:**

Site Location

---



**Key:**

 Site Location



Aspect Ecology Limited West Court Hardwick Business Park  
 Noral Way Banbury Oxfordshire OX16 2AF  
 01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

**Connah's Quay (North)**

Site Location

6322/ECO1

B/JP

September 2023

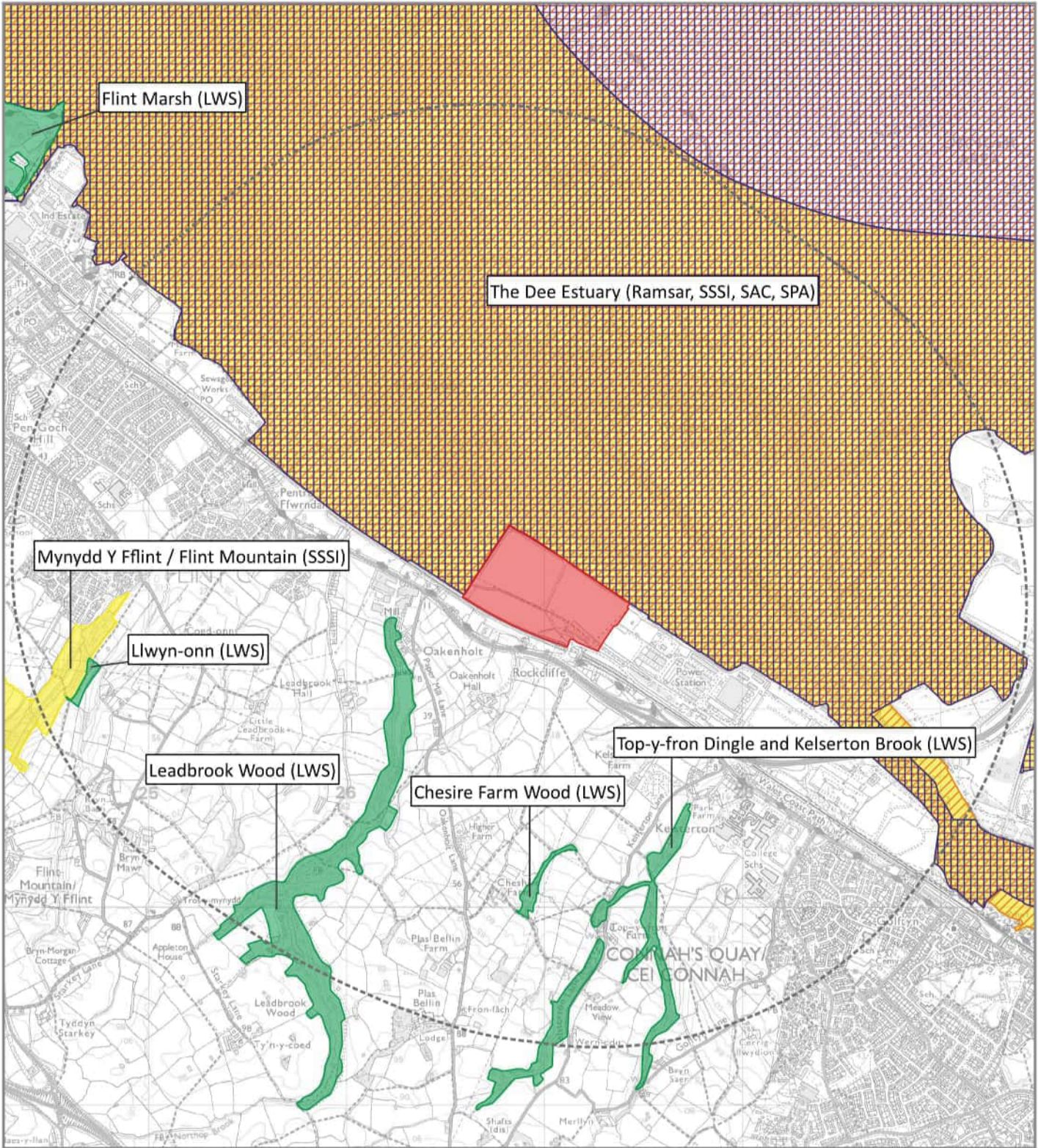


PROJECT	
TITLE	
DRAWING NO.	
REV	
DATE	








## **Plan 6322/ECO2:**

Ecological Designations

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**Key:**

-  Site Location
-  2km Study Area
-  Ramsar Site
-  Site of Special Scientific Interest (SSSI)
-  Special Area of Conservation (SAC)
-  Special Protection Area (SPA)
-  Local Wildlife Site (LWS)



Aspect Ecology Limited - West Court - Hardwick Business Park  
 Noral Way Banbury Oxfordshire OX16 2AF  
 01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

Connah's Quay (North)

Ecological Designations

6322/ECO2

B/JP

September 2023



PROJECT	Connah's Quay (North)
TITLE	Ecological Designations
DRAWING NO.	6322/ECO2
REV	B/JP
DATE	September 2023

## **Plan 6322/ECO3:**

Habitats and Ecological Features

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- Key:**
- Site Boundary
  - Rough Grassland
  - Improved Grassland
  - Pasture
  - Marshy Grassland
  - Tall Ruderal Vegetation
  - x Scattered Scrub
  - Dense Scrub
  - Pond
  - Reed Bed/Rush
  - Hedgerow
  - Tree Line
  - Hardstanding



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 Noral Way - Banbury - Oxfordshire - OX16 2AF  
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Connah's Quay (North)

Habitats and Ecological Features

6322/ECO3

B/JP

September 2023



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## **Plan 6322/ECO4:**

Reptile Transect Locations

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Key:  
 Site Boundary  
 Reptile Transect

**aspect ecology**  
 Aspect Ecology Limited - West Court - Hardwick Business Park  
 Noral Way - Banbury - Oxfordshire - OX16 2AF  
 01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

Connah's Quay (North)	PROJECT
Reptile Transect	TITLE
6322/ECO4	DRAWING NO.
B/JP	REV
September 2023	DATE



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## **Appendix 6322/1:**

Evaluation Methodology

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## Evaluation Methodology

1. The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018)<sup>1</sup>.

### Importance of Ecological Features

2. Ecological features within the site/study area have been evaluated in terms of whether they qualify as 'important ecological features'. In this regard, CIEEM guidance states that *"it is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable"*.
3. Various characteristics contribute to the importance of ecological features, including:
  - Naturalness;
  - Animal or plant species, sub-species or varieties that are rare or uncommon, either internationally, nationally or more locally, including those that may be seasonally transient;
  - Ecosystems and their component parts, which provide the habitats required by important species, populations and/or assemblages;
  - Endemic species or locally distinct sub-populations of a species;
  - Habitat diversity;
  - Habitat connectivity and/or synergistic associations;
  - Habitats and species in decline;
  - Rich assemblages of plants and animals;
  - Large populations of species or concentrations of species considered uncommon or threatened in a wider context;
  - Plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally species-poor communities; and
  - Species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change.
4. As an objective starting point for identifying important ecological features, European, national and local governments have identified sites, habitats and species which form a key focus for biodiversity conservation in the UK, supported by policy and legislation. These are summarised by CIEEM guidance as follows:

### *Designated Sites*

- Statutory sites designated or classified under international conventions or European legislation, for example World Heritage Sites, Biosphere Reserves, Wetlands of International Importance (Ramsar sites), Special Areas of Conservation (SAC), Special Protection Areas (SPA);

<sup>1</sup> CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', Chartered Institute of Ecology and Environmental Management, Winchester

- Statutory sites designated under national legislation, for example Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR);
- Locally designated wildlife sites, e.g. Local Wildlife Sites (LWS).

#### *Biodiversity Lists*

- Habitats and species of principal importance for the conservation of biodiversity in England and Wales (largely drawn from UK BAP priority habitats and priority species), often referred to simply as Priority Habitats / Species;
- Local BAP priority species and habitats.

#### *Red Listed, Rare, Legally Protected Species*

- Species of conservation concern, Red Data Book (RDB) species;
- Birds of Conservation Concern;
- Nationally rare and nationally scarce species;
- Legally protected species.

5. In addition to this list, other features may be considered to be of importance on the basis of local rarity, where they enable effective conservation of other important features, or play a key functional role in the landscape.

#### Assigning Level of Importance

6. The importance of an ecological feature should then be considered within a defined geographical context. Based on CIEEM guidance, the following frame of reference is used:
  - International (European);
  - National;
  - Regional;
  - County;
  - District;
  - Local (e.g. Parish or Neighbourhood);
  - Site (not of importance beyond the immediate context of the site).
7. Features of 'local' importance are those considered to be below a district level of importance, but are considered to appreciably enrich the nature conservation resource or are of elevated importance beyond the context of the site.
8. Where features are identified as 'important' based on the list of key sites, habitats and species set out above, but are very limited in extent or quality (in terms of habitat resource or species population) and do not appreciably contribute to the biodiversity interest beyond the context of the site, they are considered to be of 'site' importance.
9. In terms of assigning the level of importance, the following considerations are relevant:

### *Designated Sites*

10. For designated sites, importance should reflect the geographical context of the designation (e.g. SAC/SPA/Ramsar sites are designated at the international level whereas SSSIs are designated at the national level). Consideration should be given to multiple designations as appropriate (where an area is subject to differing levels of nature conservation designations).

### *Habitats*

11. In certain cases, the value of a habitat can be measured against known selection criteria, e.g. SAC selection criteria, 'Guidelines for the selection of biological SSSIs' and the Hedgerows Regulations 1997. However, for the majority of commonly encountered sites, the most relevant habitat evaluation will be at a more localised level and based on relevant factors such as antiquity, size, species-diversity, potential, naturalness, rarity, fragility and typicalness (Ratcliffe, 1977). The ability to restore or re-create the habitat is also an important consideration, for example in the case of ancient woodland.
12. Whether habitats are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Habitats of Principal Importance' or 'Priority Habitats', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular habitat under a BAP does not in itself imply any specific level of importance.
13. Habitat inventories (such as habitat mapping on the MAGIC database) or information relating to the status of particular habitats within a district, county or region can also assist in determining the appropriate scale at which a habitat is of importance.

### *Species*

14. Deciding the importance of species populations should make use of existing criteria where available. For example, there are established criteria for defining nationally and internationally important populations of waterfowl. The scale within which importance is determined could also relate to a particular population, e.g. the breeding population of common toads within a suite of ponds or an otter population within a catchment.
15. When determining the importance of a species population, contextual information about distribution and abundance is fundamental, including trends based on historical records. For example, a species could be considered particularly important if it is rare and its population is in decline. With respect to rarity, this can apply across the geographic frame of reference and particular regard is given to populations where the UK holds a large or significant proportion of the international population of a species.
16. Whether species are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Species of Principal Importance' or 'Priority Species', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular species under a BAP does not in itself imply any specific level of importance.
17. Species populations should also be considered in terms of the potential zone of influence of the proposals, i.e. if the entire species population within the site and surrounding area were to be affected by the proposed development, would this be of significance at a local, district, county or wider scale? This should also consider the foraging and territory ranges of individual species (e.g. bats roosting some distance from site may forage within site whereas other species such as invertebrates may be more sedentary).

## **Appendix 6322/2:**

Legislation Summary

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## LEGISLATION SUMMARY

1. In England and Wales primary legislation is made by the UK Parliament, and in Scotland by the Scottish Parliament, in the form of Acts. The main piece of legislation relating to nature conservation in the UK is the Wildlife and Countryside Act 1981 (as amended).
2. Acts of Parliament confer powers on Ministers to make more detailed orders, rules or regulations by means of secondary legislation in the form of statutory instruments. Statutory instruments are used to provide the necessary detail that would be too complex to include in an Act itself<sup>1</sup>. The provisions of an Act of Parliament can also be enforced, amended or updated by secondary legislation.
3. In summary, the key pieces of legislation relating to nature conservation in the UK are:
  - Wildlife and Countryside Act 1981 (as amended)
  - Protection of Badgers Act 1992
  - Hedgerows Regulations 1997
  - Countryside and Rights of Way (CROW) Act for England and Wales 2000
  - Natural Environment and Rural Communities Act 2006
  - Conservation of Habitats and Species Regulations 2017
4. A brief summary of the relevant legislation is provided below. The original Acts and instruments should be referred to for the full and most up to date text of the legislation.
5. **Wildlife and Countryside Act 1981 (as amended)**. The WCA Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) identified for their flora, fauna, geological or physiographical features. The Act contains strict measures for the protection and management of SSSIs.
6. The Act also refers to the treatment of UK wildlife including protected species listed under Schedules 1 (birds), 5 (mammals, herpetofauna, fish, invertebrates) and 8 (plants).
7. Under Section 1(1) of the Act, all wild birds are protected such that it is an offence to intentionally:
  - Kill, injure or take any wild bird;
  - Take, damage or destroy the nest of any wild bird whilst in use\* or being built;
  - Take or destroy an egg of any wild bird.

\* The nests of birds that re-use their nests as listed under Schedule ZA1, e.g. Golden Eagle, are protected against taking, damage or destruction irrespective of whether they are in use or not.
8. Offences in respect of Schedule 1 birds are subject to special, i.e. higher, penalties. Schedule 1 birds also receive greater protection such that it is an offence to intentionally or recklessly:
  - Disturb any wild bird included in Schedule 1 while it is building a nest or while it is in, on or near a nest containing eggs or young;
  - Disturb dependent young of such a bird.

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<sup>1</sup> <http://www.parliament.uk/business/bills-and-legislation/secondary-legislation/statutory-instruments/>

9. Under Section 9(1) of the Act, it is an offence to:
  - Intentionally kill, injure or take any wild animal included in Schedule 5.
10. In addition, under Section 9(4) it is an offence to intentionally or recklessly:
  - Obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; or
  - Disturb any wild animal included in Schedule 5 while occupying a structure or place which it uses for that purpose.
11. Under Section 13(1) it is an offence:
  - To intentionally pick, uproot or destroy any wild plant listed in Schedule 8; or
  - Unless the authorised person, to intentionally uproot any wild plant not included in Schedule 8.
12. The Act also contains measures (S.14) for preventing the establishment of non-native species that may be detrimental to native wildlife, prohibiting the introduction into the wild of animals (releases or allows to escape) and plants (plants or causes to grow) listed under Schedule 9.
13. **Protection of Badgers Act 1992.** The Act aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It should be noted that the legislation is not intended to prevent properly authorised development. Under the Act it is an offence to:
  - Wilfully kill, injure, take, possess or cruelly ill-treat\* a Badger, or attempt to do so;
  - To intentionally or recklessly interfere with a sett# (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

\* the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence

# A sett is defined as “any structure or place which displays signs indicating current use by a Badger”. Natural England advice (June 2009) is that a sett is protected so long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger. Interference with a sett includes blocking tunnels or damaging the sett in any way
14. Licences can be obtained from the Statutory Nature Conservation Organisation (SNCO) for development activities that would otherwise be unlawful under the legislation, provided there is suitable justification. The SNCO for England is Natural England.
15. **Hedgerows Regulations 1997.** ‘Important’ hedgerows (as defined by the Regulations) are protected from removal (up-rooting or otherwise destroying). Various criteria specified in the Regulations are employed to identify ‘important’ hedgerows for wildlife, landscape or historical reasons.
16. **Countryside and Rights of Way (CRoW) Act for England and Wales 2000.** The CRoW Act provides increased measures for the management and protection of SSSIs and strengthens wildlife enforcement legislation. Schedule 12 of the Act amends the species provisions of the WCA 1981, strengthening the legal protection for threatened species. The Act also introduced a duty on Government to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

17. **Natural Environment and Rural Communities Act 2006.** Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as local planning authorities, in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when exercising their normal functions. 56 habitats and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (BAP).
18. **Conservation of Habitats and Species Regulations 2017 (as amended).** The Regulations enact the European Union's Habitats Directive (92/43/EEC) in the UK. The Habitats Directive was designed to contribute to the maintenance of biodiversity within member states through the conservation of sites, known in the UK as Special Areas of Conservation (SACs), containing habitats and species selected as being of EC importance (as listed in Annexes I and II of the Habitats Directive respectively). Member states are required to take measures to maintain or restore these natural and semi-natural habitats and wild species at a favourable conservation status.
19. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs)<sup>2</sup> classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites constitute the Natura 2000 network. The Regulations impose restrictions on planning decisions likely to significantly affect SPAs or SACs.
20. The Regulations also provide protection to European Protected Species of animals that largely overlaps with the WCA 1981, albeit the provisions are generally stricter. Under Regulation 43 it is an offence, *inter alia*, to:
  - Deliberately capture, injure or kill any wild animal of a European Protected Species;
  - Deliberately disturb any wild animals of any such species, including in particular any disturbance likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance;
  - Deliberately take or destroy the eggs of such an animal;
  - Damage or destroy a breeding site or resting place of such an animal.
21. Similar protection is afforded to European Protected Species of plants, as detailed under Regulation 47.
22. The Regulations do provide a licensing system that permits otherwise illegal activities in relation to European Protected Species, subject to certain tests being fulfilled.

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<sup>2</sup> Special Protection Areas (SPAs) are protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC) (aka the Birds Directive), which came into force in April 1979. SPAs are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.

## **Appendix 6322/3:**

Survey Data

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ECO & Project	6322 CONNAN'S QUAY NORTH				Tin temperature relates to the warmth of the tins to touch - i.e cold, cool, warm or hot. Note that some tins may be different temperatures to others so on the form you could record for example cool - warm	
Date and Time	6/5/22 12:15					
Surveyors	AN + CW					
Tin Temperature(s)	Warm				Other info	
Weather and Other Info	Start Temp °C: 16	End Temp °C: 17	Cloud Cover %: 0%	Beaufort: 3	Rain: NONE	12 mph NE whds

Transect	Common Lizard			Slow Worm			Grass Snake			Other Reptiles	Other species	Have you read the H&S brief?
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile			
	Male	Female		Male	Female		Male	Female				
A												
B												
C												
D												
E												
F												
G												
H												
I												
J												
K												
L												
M												
N												
O												
P												
Q												
R												
S												
T												
U												
V												
W												
X												
Y												
Z												
TOTAL												

Comments
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PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

Beaufort Scale: 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.  
 Rain: Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

ECO & Project	6322 Cornish's Quay North					Tin temperature relates to the warmth of the tins to touch – i.e cold, cool, warm or hot. Note that some tins may be different temperatures to others so on the form you could record for example cool – warm
Date and Time	9/5/22 11 am					
Surveyors	LP/AC					Other Info
Tin Temperature(s)						
Weather and Other Info	Start Temp °C:	End Temp °C:	Cloud Cover %:	Beaufort:	Rain:	Cool
	16	16	75	3	Dry	

Noddy found

Transect	Common Lizard			Slow Worm			Grass Snake			Other Reptiles	Other species	Have you read the H&S brief?	<input checked="" type="checkbox"/>
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile				
	Male	Female		Male	Female		Male	Female					
A	<input checked="" type="checkbox"/>												
B	<input checked="" type="checkbox"/>												
C	<input checked="" type="checkbox"/>												
D	<input checked="" type="checkbox"/>												
E	<input checked="" type="checkbox"/>												
F	<input checked="" type="checkbox"/>												
G	<input checked="" type="checkbox"/>												
H	<input checked="" type="checkbox"/>												
I	<input checked="" type="checkbox"/>												
J	<input checked="" type="checkbox"/>												
K	<input checked="" type="checkbox"/>												
L	<input checked="" type="checkbox"/>												
M	<input checked="" type="checkbox"/>												
N													
O													
P													
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													
TOTAL													

Comments

PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

Beaufort Scale: 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.

Rain: Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

ECO & Project	6322 Cornish's Quay North					Tin temperature relates to the warmth of the lins to touch – i.e cold, cool, warm or hot. Note that some lins may be different temperatures to others so on the form you could record for example cool – warm
Date and Time	12/05/22 11.30					
Surveyors	MW + AN					Other info
Tin Temperature(s)						
Weather and Other Info	Start Temp °C: 14	End Temp °C: 16	Cloud Cover %: 65	Beaufort: 3	Rain: Dry	

Transect	Common Lizard				Slow Worm				Grass Snake				Other Reptiles	Other species	Have you read the H&S brief?	Yes
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile							
	Male	Female		Male	Female		Male	Female								
A ✓																
B ✓																
C ✓																
D ✓																
E ✓																
F ✓																
G ✓																
H ✓																
I ✓																
J ✓																
K ✓																
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R																
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T																
U																
V																
W																
X																
Y																
Z																
TOTAL																

Comments

PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

Beaufort Scale: 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.  
 Rain: Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

ECO & Project	6322 Comual's Quay North					Tin temperature relates to the warmth of the lins to touch – i.e cold, cool, warm or hot. Note that some lins may be different temperatures to others so on the form you could record for example cool – warm
Date and Time	16/05/22 12.00 pm					
Surveyors	Adam Nixon, George Jasper					
Tin Temperature(s)	Warm					Other info
Weather and Other Info	Start Temp °C: 18	End Temp °C: 20	Cloud Cover %: 100	Beaufort: 3	Rain: Light rain	

Transect	Common Lizard				Slow Worm				Grass Snake				Other Reptiles	Other species	Have you read the H&S brief? <input checked="" type="checkbox"/>
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile						
	Male	Female		Male	Female		Male	Female							
✓A															
✓B															
✓C															
✓D															
✓E															
✓F															
✓G															
✓H															
✓I															
✓J															
✓K															
✓L															
✓M															
N															
O															
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R															
S															
T															
U															
V															
W															
X															
Y															
Z															
TOTAL															

Comments

PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

Beaufort Scale: 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.  
 Rain: Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

ECO & Project	CONNAM'S AWAY 6322 NORTH					Tin temperature relates to the warmth of the tins to touch – i.e cold, cool, warm or hot. Note that some tins may be different temperatures to others so on the form you could record for example cool – warm
Date and Time	10 am 20/05/22					
Surveyors	MH					
Tin Temperature(s)	Cool – warm					Other info
Weather and Other Info	Start Temp °C: 14	End Temp °C: 16	Cloud Cover %: 10	Beaufort: 2	Rain: N	

Transsect	Common Lizard			Slow Worm			Grass Snake			Other Reptiles	Other species	Have you read the H&S brief?	✓
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile				
	Male	Female		Male	Female		Male	Female					
X A													
X B													
X C													
X D													
X E													
X F													
X G													
X H													
X I													
X J													
X K													
X L													
X M													
N													
O													
P													
Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													
TOTAL													

Comments

PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

Beaufort Scale: 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.  
 Rain: Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

ECO & Project	6322 - Connah's Quay Natl					Tin temperature relates to the warmth of the tins to touch - i.e. cold, cool, warm or hot. Note that some tins may be different temperatures to others so on the form you could record for example cool - warm
Date and Time	11.30 23/05/22					
Surveyors	AN COB					Other info
Tin Temperature(s)						
Weather and Other Info	Start Temp °C: 13	End Temp °C: 14	Cloud Cover %: 100	Beaufort: 2	Rain: Showers	

Transect	Common Lizard			Slow Worm			Grass Snake			Other Reptiles	Other species	Have you read the H&S brief? Yes
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile			
	Male	Female		Male	Female		Male	Female				
A											Common Toad	
B												
C												
D												
E												
F												
G												
H												
I												
J												
K												
L												
M												
N												
O												
P												
Q												
R												
S												
T												
U												
V												
W												
X												
Y												
Z												
TOTAL												

Comments

PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

Beaufort Scale: 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.

Rain: Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

ECO & Project	6322 Connah's Quay North				Tin temperature relates to the warmth of the tins to touch – i.e cold, cool, warm or hot. Note that some tins may be different temperatures to others so on the form you could record for example cool – warm
Date and Time	25/5/22 - 12.30				
Surveyors	Ewan Rhianon				
Tin Temperature(s)	Lost				Other info
Weather and Other Info	Start Temp °C: 17	End Temp °C: 17	Cloud Cover %: 100	Beaufort: 3	Rain: Damp

Transect	Common Lizard			Slow Worm			Grass Snake				Other Reptiles	Other species	Have you read the H&S brief? <input checked="" type="checkbox"/>
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile				
	Male	Female		Male	Female		Male	Female					
A													
B													
C													
D													
E													
F													
G													
H													
I													
J													
K													
L													
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N													
O													
P													
Q													
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U													
V													
W													
X													
Y													
Z													
TOTAL													

NO REPTILES FOUND

Comments

PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

Beaufort Scale: 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.  
 Rain: Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

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Connah's Quay Power Station:  
Southern Land Parcel

## Reptile Surveys

July 2023

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Plan 6322/ECO2	Ecological Designations
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Appendix 6322/1	Evaluation Methodology
Appendix 6322/2	Legislation Summary
Appendix 6322/3	Survey Data

## Executive Summary

- i) **Introduction.** Aspect Ecology was commissioned by Uniper UK Ltd in July 2021 to undertake baseline ecological surveys of the Northern Land Parcel at Connah's Quay Power Station, Connah's Quay, Flintshire.
- ii) **Survey.** A desk study was undertaken in August 2021 sourcing biological records from the area of the site, including records of reptiles. The site contains habitat with the potential to support reptiles. Reptile surveys were subsequently undertaken at the site from May to July 2022 in accordance with standard methodology.
- iii) **Desk Study.** The site itself is not subject to any statutory or non-statutory ecological designations, and none of the designations in the wider area of the site list reptiles as a reason for that designation or mention reptiles in their citations. The desk study returned a single record of one Common Lizard from within the 2km search area, dating from 2013.
- iv) **Survey Findings.** Surveys for reptiles undertaken in May 2022 confirmed the presence of a low population of Common Lizard at the site, with a peak count of one Common Lizard.
- v) **Conclusions.** The surveys confirmed that reptiles do occur at the site in very low numbers.

# 1 Introduction

## 1.1 Background and Proposals

1.1.1 Aspect Ecology was commissioned by Uniper UK Ltd in July 2021 to undertake baseline ecological surveys of the Southern Land Parcel at Connah's Quay Power Station, Connah's Quay, approximately centred at grid reference SJ 288 703 (see Plan 6322/ECO1), hereafter referred to as 'the site'.

1.1.2 Because of the presence of suitable habitat to support reptiles within the site, and the return of one record of reptiles from the desk study, reptile surveys were undertaken from May to July 2022.

## 1.2 Site Overview

1.2.1 The site is located in north-east Flintshire in North Wales (see Plan 6322/ECO1). The site is bounded to the north and east by the River Dee. Connah's Quay Power Station is located immediately adjacent to the site's western boundary and a railway line defines the site's southern site boundary. The town of Connah's Quay extends to the south. The Deeside Industrial Park is present to the north and east across the River Dee.

1.2.2 The site itself comprises hard standing and disturbed land which has been recently cleared of scrub, grassland, and small patches of scrub and tall ruderal vegetation.

## 1.3 Purpose of the Report

1.3.1 This report documents the methods and findings of the desk study in relation to reptiles, and the reptile surveys carried out. The importance of the site for reptiles is evaluated.

## 2 Methodology

### 2.1 Desktop Study

- 2.1.1 Background information relevant to the site and its immediate surroundings to a distance of 2km was sourced from the North Wales Environmental Information Service (Cofnod) in August 2021. The data obtained comprised information on designated sites and species records.
- 2.1.2 Information on statutory designations was obtained from the MAGIC database<sup>1</sup>, which uses data provided by Natural England, from within an extended search area of 25km. The MAGIC database was also searched for the presence of Priority Habitats within or adjacent to the site. Relevant information is shown on Plan 6322/ECO2.

### 2.2 Reptile Surveys

#### *Presence/Absence Survey*

- 2.2.1 The site was surveyed in August 2021 to assess the general ecological value of the land and to identify the main habitats and ecological features present. Habitats present are shown on Plan 6322/ECO3.
- 2.2.2 Because of the presence of habitats suitable to support reptiles, a reptile survey was subsequently undertaken from May to July 2022. The survey set out to confirm whether or not reptiles were present at the site, and to estimate the sizes of any populations present.
- 2.2.3 The reptile survey was undertaken in accordance with standard guidance<sup>2</sup>. A total of 125 50x50cm sheets of thick roofing felt were placed within areas of suitable habitat within the site to serve as artificial refugia (see Plan 6322/ECO4). This corresponds to an approximate density of 9.5 refugia per hectare of suitable habitats, which corresponds to the recommended five to ten refugia per hectare.
- 2.2.4 Refugia provide sheltering sites for reptiles that will tend to heat up more quickly than their surroundings in the morning and remain warmer than their surroundings into the late afternoon. Reptiles bask on and beneath refugia so as to raise their body temperature, enabling them to forage. The survey method is based on checking for the presence of reptiles on or beneath refugia in the morning or evening when basking reptiles are most likely to be observed.
- 2.2.5 The refugia were deployed and left undisturbed for 1-2 weeks prior to the first survey visit to allow reptiles to find and make use of them. Following this initial settling period, all refugia were checked for the presence of reptiles on seven occasions during optimal weather conditions (taken as not during continual heavy rain or strong winds, ambient temperature 9-18°C). Weather conditions during the survey visits are shown in Table 2.1 below.

<sup>1</sup> Multi-Agency Geographic Information for the Countryside (MAGIC), <https://magic.defra.gov.uk/>

<sup>2</sup> Froglife Advice Sheet 10 (1999) 'Reptile Survey - an introduction to planning, conducting and interpreting surveys for snake and lizard conservation.'

**Table 2.1.** Reptile survey dates and weather conditions.

Survey Date	Weather Conditions			
	Wind (BF)	Temp(°C)	Cloud Cover (%)	Precipitation
06/05/2022	3	16-17	0	Dry
09/05/2022	3	16	75	Dry
12/05/2022	3	14-16	65	Dry
16/05/2022	3	18-20	100	Light Rain
20/05/2022	2	14-16	10	Dry
07/07/2022	4	16	100	Dry
27/07/2022	1	17-18	55	Dry

BF = Beaufort Force: BF0 = calm, BF12 = hurricane force

## 2.3 Survey Constraints and Limitations

2.3.1 Conditions during the survey undertaken on 16<sup>th</sup> May 2022 were outside the optimum recommended survey conditions, with a recorded temperature of 18-20°C. However, as weather conditions were overcast with light rain, despite the high temperature the refugia did not heat up substantially. It is likely that conditions for reptiles at the refugia were therefore not substantially different to those during other surveys. This is substantiated by the findings of the survey on this date reporting comparable results to those of 12 May and 20 May with a single common lizard observed at Transect S.

## 2.4 Ecological Evaluation Methodology

2.4.1 The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018)<sup>3</sup>, which involves identifying 'important ecological features' within a defined geographical context (i.e. international, national, regional, county, district, local or site importance). Further detail is provided in Appendix 6322/2.

## 2.5 National Policy Approach to Biodiversity in the Planning System

2.5.1 National Planning Policy in Wales is set out in Planning Policy Wales (PPW)<sup>4</sup>. This describes policies designed to maximise environmental protection and limit environmental impact including the promotion of resilient biodiversity and ecosystems, citing biodiversity as an element in the delivery of distinctive and natural places, and ensuring environmental sustainability through good design.

2.5.2 PPW sets out a framework for the sustainable management of natural resources, which within which the planning system contribute by:

- *improving the resilience of ecosystems and ecological networks;*
- *halting and reversing the loss of biodiversity;*

<sup>3</sup> CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', ver. 1.1, Chartered Institute of Ecology and Environmental Management, Winchester

<sup>4</sup> Llywodraeth Cymru/Welsh Government (2021). 'Planning Policy Wales', Edition 11, February 2021.

- *maintaining and enhancing green infrastructure based on seeking multiple ecosystem benefits and solutions;* amongst other measures.

2.5.3 PPW embeds the protection and enhancement of biodiversity within all components of the planning system in Wales, stating that:

*'Biodiversity loss should be reversed, pollution reduced, environmental risks addressed and overall resilience of ecosystems improved.'*

2.5.4 The approach to dealing with biodiversity in the context of planning applications is set out on Section 6.4, stating:

*'The planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement.'*

and

*'Development plan strategies, policies and development proposals must consider the need to:*

- *support the conservation of biodiversity, in particular the conservation of wildlife and habitats;*
- *ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;*
- *ensure statutorily and non-statutorily designated sites are properly protected and managed;*
- *safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and*
- *secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.'*

*'All reasonable steps must be taken to maintain and enhance biodiversity and promote the resilience of ecosystems and these should be balanced with the wider economic and social needs of business and local communities. Where adverse effects on the environment cannot be avoided or mitigated, it will be necessary to refuse planning permission.'*

2.5.5 PPW does not currently mandate a target for Biodiversity Net Gain, but does set out that:

*'...development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity;'*

*'...planning decisions should incorporate measures which seek the creation, restoration and appropriate management of green networks and linkages between habitats and maintaining and enhancing other green infrastructure features and networks'.*

2.5.6 The above approach encapsulates the 'mitigation hierarchy' described in British Standard BS 42020:2019<sup>5</sup>, which involves the following step-wise process:

- **Avoidance** – avoiding adverse effects through good design;
- **Mitigation** – where it is unavoidable, mitigation measures should be employed to minimise adverse effects;
- **Compensation** – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm; and
- **Enhancement** – planning decisions often present the opportunity to deliver benefits for biodiversity, which can also be explored alongside the above measures to resolve potential adverse effects.

2.5.7 The measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development (BS 42020:2019, section 5.5).

## 2.6 Local Policy

2.6.1 The Local Policy for Cyngor Sir y Fflint Flintshire County Council is currently set out within the 'Flintshire Local Development Plan 2015 - 2030 (Adopted January 2023)'. Policies that relate specifically to ecology and biodiversity are set out below.

2.6.2 Policy EN2: Green Infrastructure

*"Development proposals will be required to protect, maintain and enhance the extent, quality and connectivity of the green infrastructure network, including designated and non-designated green spaces (as shown on the proposals maps and listed in the table below), and where appropriate:*

- a. *Create new green infrastructure linkages from the proposed development to the existing local network;*
- b. *Fill in gaps in the existing network to improve connectivity.*

*Where the loss or damage of existing green infrastructure is unavoidable, appropriate mitigation and compensation will be required."*

2.6.3 Policy EN3: Undeveloped Coast and Dee Estuary Corridor states:

*"Within the undeveloped coast development will only be permitted where:*

- a. *It can be demonstrated a coastal location is essential;*
- b. *It conserves and enhances the open character of the coast;*
- c. *It would not unacceptably harm areas of nature conservation, landscape or biodiversity;*
- d. *It would not harm existing or proposed recreational or active travel routes;*
- e. *Extensive coastal protection measures are not required; and*

---

<sup>5</sup> British Standards Institution (2013) 'Biodiversity – Code of practice for planning and development', BS 42020:2019

- f. It would not be potentially at risk of flooding nor unacceptably increase erosion or flooding or interfere with natural coastal processes.”*

2.6.4 Policy EN6: Sites of Biodiversity and Geodiversity Importance states:

*“Development will not be permitted that would result in an adverse effect on the integrity of sites of international nature conservation importance. Proposals where adverse effects on site integrity cannot be ruled out would not be supported.*

*Development likely to impact the special features of a Nationally Designated Site will only be granted in exceptional circumstances where appropriate compensation can be provided. Development proposals that would have a significant adverse effect on locally designated sites or site with other biodiversity and / or geological interest, including priority species, will only be permitted where:*

- a. it can be demonstrated that the need for the development outweighs the biodiversity or geological importance of the site; and*
- b. it can be demonstrated that the development cannot reasonably be located elsewhere; and*
- c. any unavoidable harm is minimised by effective mitigation to ensure that there is no reduction in the overall biodiversity value of the area. Where this is not feasible compensation measures designed to create, restore and enhance biodiversity must be provided.*

*Development that results in the restoration, enhancement and creation of habitats will be supported especially where this promotes the resilience of ecosystems.”*

2.6.5 Policy EN7: Development Affecting Trees, Woodlands and Hedgerows states:

*“Development proposals that will result in significant loss of, or harm to, trees, woodlands or hedgerows of biodiversity, historic, and amenity value will not be permitted.*

*Where the impact of development affecting trees, woodlands or hedgerows is considered acceptable, development will only be permitted where:*

- a. the development maximises their retention through sensitive design*
- b. measures; and*
- c. where the removal of trees is considered necessary, suitable replacements*
- d. shall be provided elsewhere within the site; and*
- e. it results in a net benefit in biodiversity.”*

2.6.6 Policy EN7: Development In or Adjacent to Conservation Areas states:

*“Development within or adjacent to a conservation area will only be permitted if it would preserve or enhance the character and appearance of the conservation area or its setting. New development in such locations must also be of a high standard of design, respond to the area’s special characteristics, and pay particular regard to:*

- a. *important views, vistas, street scenes, roofscapes, trees, open spaces, gaps and other features that contribute to the character or appearance of the conservation area;*
- b. *the retention of historically significant boundaries or other elements that contribute to the established form of development;*
- c. *the relationship to existing buildings and spaces, and pattern of development;*
- d. *scale, height and massing, architectural design and detailing, the use of materials, boundary treatment, and public realm materials.”*

## 3 Reptiles

### 3.1 Legislation

3.1.1 All six species of British reptile are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which protects individuals against intentional killing or injury. Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca* receive additional protection under the Conservation of Habitats and Species Regulations 2017 (as amended) (see Appendix 6322/2 for detailed provisions). All six reptile species are also S41 Priority Species.

### 3.2 Background Records

3.2.1 The desk study returned only one record of a reptile from within 2km of the site. This record, dating from 2013, was of a single Common Lizard *Zootoca vivipara* and was located at distance from the site.

### 3.3 Survey Results

3.3.1 The results of the reptile surveys undertaken are summarised in Table 3.1 below and shown on Plan 6263/ECO4.

**Table 2.1.** Reptile survey findings.

Visit	Date	Common Lizard		Slow Worm		Grass Snake		Other Species
		Adult	Juv.	Adult	Juv.	Adult	Juv.	
1	06/05/2022	0	0	0	0	0	0	0
2	09/05/2022	0	0	0	0	0	0	0
3	12/05/2022	1	0	0	0	0	0	0
4	16/05/2022	1	0	0	0	0	0	0
5	20/05/2022	1	1	0	0	0	0	0
6	07/07/2022	0	0	0	0	0	0	0
7	27/07/2022	0	0	0	0	0	0	0
<b>Peak Count</b>		<b>1</b>		<b>0</b>		<b>0</b>		

3.3.2 A peak count of one Common Lizard was recorded during the survey work undertaken. A single juvenile Common Lizard was observed on one occasion. All adult lizards were observed at transect S in the north-east of the site (see Plan 6322/ECO4), while the juvenile Common Lizard was recorded at transect O, beside scrub to the south of the site entrance.

3.3.3 The area of suitable reptile habitat at the site (which comprises the entire site area) measures approximately 13.0ha and therefore the peak count corresponds to a population of less than one Common Lizard per hectare, which indicates a low population of Common Lizard to be present according to the standard guidance<sup>6</sup>. As such, it is considered that the population of reptiles supported by the study area is of importance at the site level only.

3.3.4 Data forms from the surveys undertaken are provided in Appendix 6322/3.

<sup>6</sup> Herpetofauna Groups of Britain and Ireland (1998) 'Evaluating local mitigation/translocation programmes: Maintaining Best Practice and lawful standards'

### 3.4 **Evaluation**

- 3.4.1 A small population of Common Lizard, evidenced by a peak count of one Common Lizard, was shown to be present within the site.

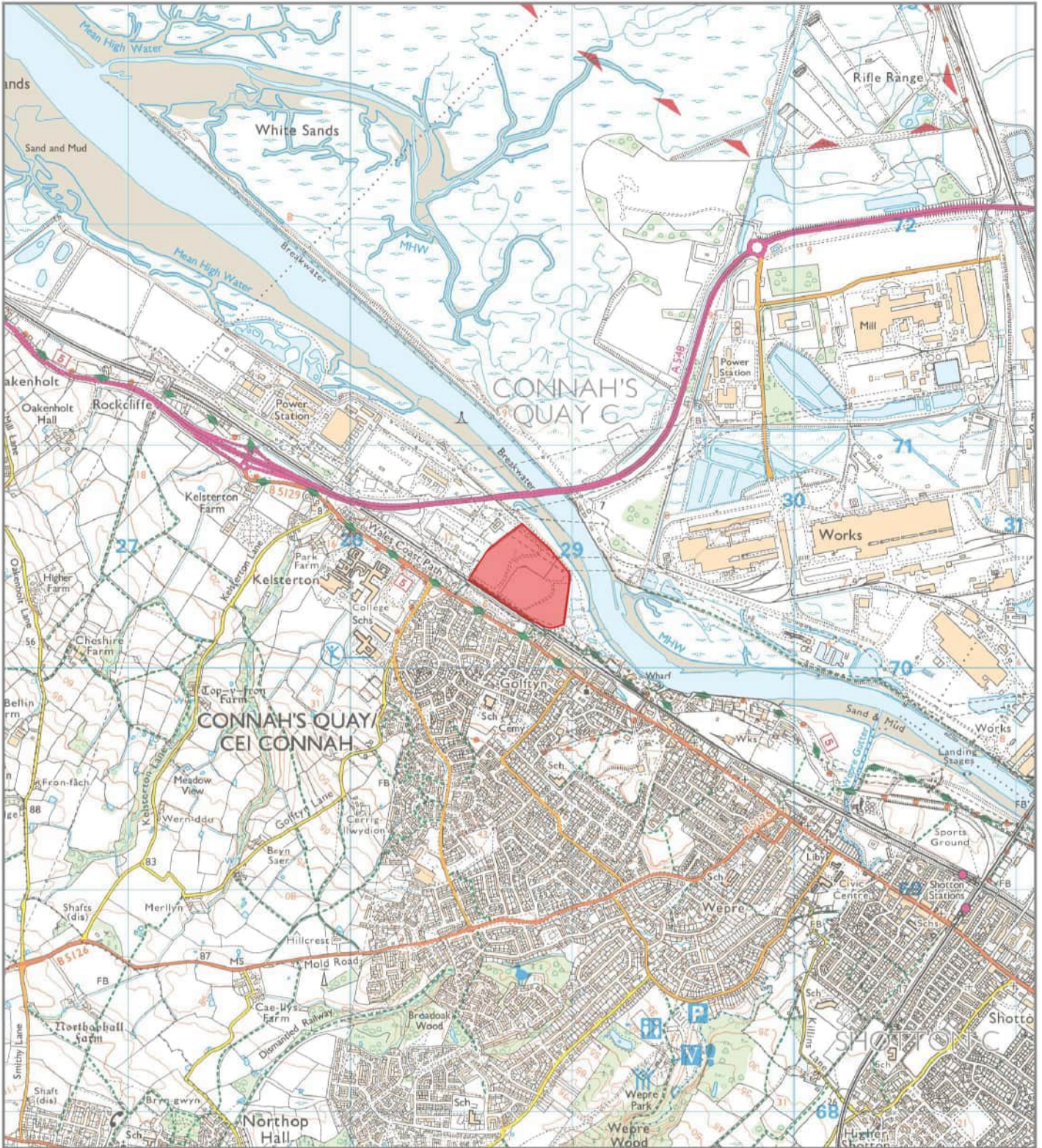
## 4 Summary

- 4.1.1 A desk study, habitat survey and surveys for reptiles have been carried out at the site.
- 4.1.2 The desk study returned a single record of Common Lizard from within the 2km search area, and habitat with the potential to support reptiles was confirmed to be present within the site.
- 4.1.3 Surveys for reptiles undertaken from May to July 2022 confirmed the presence of a low population of Common Lizard at the site, with a peak count of one Common Lizard.

## **Plan 6322/ECO1:**

Site Location

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**Key:**

 Site Location



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**Connah's Quay (South)**

Site Location

6322/ECO1

A/BG

April 2023

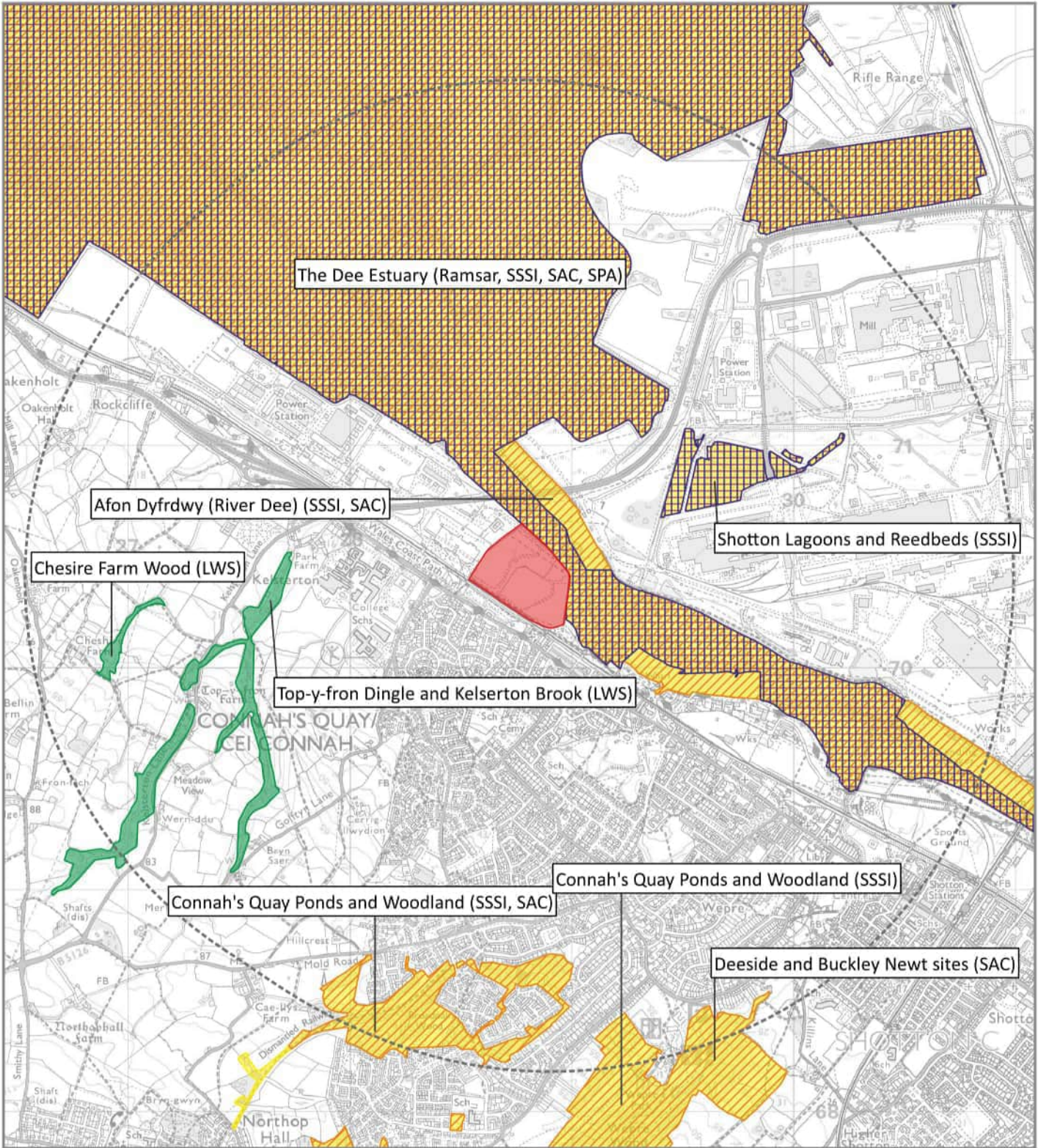
PROJECT  
 TITLE  
 DRAWING NO.  
 REV  
 DATE



## **Plan 6322/ECO2:**

Ecological Designations

---



**Key:**

- Site Location
- 2km Study Area
- Ramsar Site
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- Site of Special Scientific Interest (SSSI)
- Local Wildlife Site (LWS)



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Connah's Quay (South)

Ecological Designations

6322/ECO2

A/BG

April 2023













PROJECT
TITLE
DRAWING NO.
REV
DATE

## **Plan 6322/ECO3:**

Habitats and Ecological Features

---



- Key:
-  Site Boundary
  -  Bare Ground/Recolonising
  -  Bracken
  -  Building
  -  Dense Scrub
  -  Hardstanding
  -  Rough Grassland
  -  Tall Ruderal
  -  Scattered Scrub
  -  Tree



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 01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

Connah's Quay (South)		PROJECT
Habitats and Ecological Features		TITLE
6322/ECO3		DRAWING NO.
A/BG		REV
April 2023		DATE





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## **Plan 6322/ECO4:**

Reptile Transect Locations

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Key:  
 Site Boundary  
 Reptile Trnsect



Aspect Ecology Limited - West Court - Hardwick Business Park  
 Noral Way - Banbury - Oxfordshire - OX16 2AF  
 01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

Connah's Quay (South)

Reptile Transect

6322/ECO4

A/BG

April 2023

PROJECT  
 TITLE  
 DRAWING NO.  
 REV  
 DATE



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## **Appendix 6322/1:**

Evaluation Methodology

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## Evaluation Methodology

1. The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018)<sup>1</sup>.

### Importance of Ecological Features

2. Ecological features within the site/study area have been evaluated in terms of whether they qualify as 'important ecological features'. In this regard, CIEEM guidance states that *"it is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable"*.
3. Various characteristics contribute to the importance of ecological features, including:
  - Naturalness;
  - Animal or plant species, sub-species or varieties that are rare or uncommon, either internationally, nationally or more locally, including those that may be seasonally transient;
  - Ecosystems and their component parts, which provide the habitats required by important species, populations and/or assemblages;
  - Endemic species or locally distinct sub-populations of a species;
  - Habitat diversity;
  - Habitat connectivity and/or synergistic associations;
  - Habitats and species in decline;
  - Rich assemblages of plants and animals;
  - Large populations of species or concentrations of species considered uncommon or threatened in a wider context;
  - Plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally species-poor communities; and
  - Species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change.
4. As an objective starting point for identifying important ecological features, European, national and local governments have identified sites, habitats and species which form a key focus for biodiversity conservation in the UK, supported by policy and legislation. These are summarised by CIEEM guidance as follows:

### *Designated Sites*

- Statutory sites designated or classified under international conventions or European legislation, for example World Heritage Sites, Biosphere Reserves, Wetlands of International Importance (Ramsar sites), Special Areas of Conservation (SAC), Special Protection Areas (SPA);

<sup>1</sup> CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', Chartered Institute of Ecology and Environmental Management, Winchester

- Statutory sites designated under national legislation, for example Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR);
- Locally designated wildlife sites, e.g. Local Wildlife Sites (LWS).

#### *Biodiversity Lists*

- Habitats and species of principal importance for the conservation of biodiversity in England and Wales (largely drawn from UK BAP priority habitats and priority species), often referred to simply as Priority Habitats / Species;
- Local BAP priority species and habitats.

#### *Red Listed, Rare, Legally Protected Species*

- Species of conservation concern, Red Data Book (RDB) species;
- Birds of Conservation Concern;
- Nationally rare and nationally scarce species;
- Legally protected species.

5. In addition to this list, other features may be considered to be of importance on the basis of local rarity, where they enable effective conservation of other important features, or play a key functional role in the landscape.

#### Assigning Level of Importance

6. The importance of an ecological feature should then be considered within a defined geographical context. Based on CIEEM guidance, the following frame of reference is used:
  - International (European);
  - National;
  - Regional;
  - County;
  - District;
  - Local (e.g. Parish or Neighbourhood);
  - Site (not of importance beyond the immediate context of the site).
7. Features of 'local' importance are those considered to be below a district level of importance, but are considered to appreciably enrich the nature conservation resource or are of elevated importance beyond the context of the site.
8. Where features are identified as 'important' based on the list of key sites, habitats and species set out above, but are very limited in extent or quality (in terms of habitat resource or species population) and do not appreciably contribute to the biodiversity interest beyond the context of the site, they are considered to be of 'site' importance.
9. In terms of assigning the level of importance, the following considerations are relevant:

### *Designated Sites*

10. For designated sites, importance should reflect the geographical context of the designation (e.g. SAC/SPA/Ramsar sites are designated at the international level whereas SSSIs are designated at the national level). Consideration should be given to multiple designations as appropriate (where an area is subject to differing levels of nature conservation designations).

### *Habitats*

11. In certain cases, the value of a habitat can be measured against known selection criteria, e.g. SAC selection criteria, 'Guidelines for the selection of biological SSSIs' and the Hedgerows Regulations 1997. However, for the majority of commonly encountered sites, the most relevant habitat evaluation will be at a more localised level and based on relevant factors such as antiquity, size, species-diversity, potential, naturalness, rarity, fragility and typicalness (Ratcliffe, 1977). The ability to restore or re-create the habitat is also an important consideration, for example in the case of ancient woodland.
12. Whether habitats are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Habitats of Principal Importance' or 'Priority Habitats', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular habitat under a BAP does not in itself imply any specific level of importance.
13. Habitat inventories (such as habitat mapping on the MAGIC database) or information relating to the status of particular habitats within a district, county or region can also assist in determining the appropriate scale at which a habitat is of importance.

### *Species*

14. Deciding the importance of species populations should make use of existing criteria where available. For example, there are established criteria for defining nationally and internationally important populations of waterfowl. The scale within which importance is determined could also relate to a particular population, e.g. the breeding population of common toads within a suite of ponds or an otter population within a catchment.
15. When determining the importance of a species population, contextual information about distribution and abundance is fundamental, including trends based on historical records. For example, a species could be considered particularly important if it is rare and its population is in decline. With respect to rarity, this can apply across the geographic frame of reference and particular regard is given to populations where the UK holds a large or significant proportion of the international population of a species.
16. Whether species are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Species of Principal Importance' or 'Priority Species', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular species under a BAP does not in itself imply any specific level of importance.
17. Species populations should also be considered in terms of the potential zone of influence of the proposals, i.e. if the entire species population within the site and surrounding area were to be affected by the proposed development, would this be of significance at a local, district, county or wider scale? This should also consider the foraging and territory ranges of individual species (e.g. bats roosting some distance from site may forage within site whereas other species such as invertebrates may be more sedentary).

## **Appendix 6322/2:**

### Legislation Summary

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## LEGISLATION SUMMARY

1. In England and Wales primary legislation is made by the UK Parliament, and in Scotland by the Scottish Parliament, in the form of Acts. The main piece of legislation relating to nature conservation in the UK is the Wildlife and Countryside Act 1981 (as amended).
2. Acts of Parliament confer powers on Ministers to make more detailed orders, rules or regulations by means of secondary legislation in the form of statutory instruments. Statutory instruments are used to provide the necessary detail that would be too complex to include in an Act itself<sup>1</sup>. The provisions of an Act of Parliament can also be enforced, amended or updated by secondary legislation.
3. In summary, the key pieces of legislation relating to nature conservation in the UK are:
  - Wildlife and Countryside Act 1981 (as amended)
  - Protection of Badgers Act 1992
  - Hedgerows Regulations 1997
  - Countryside and Rights of Way (CROW) Act for England and Wales 2000
  - Natural Environment and Rural Communities Act 2006
  - Conservation of Habitats and Species Regulations 2017
4. A brief summary of the relevant legislation is provided below. The original Acts and instruments should be referred to for the full and most up to date text of the legislation.
5. **Wildlife and Countryside Act 1981 (as amended)**. The WCA Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) identified for their flora, fauna, geological or physiographical features. The Act contains strict measures for the protection and management of SSSIs.
6. The Act also refers to the treatment of UK wildlife including protected species listed under Schedules 1 (birds), 5 (mammals, herpetofauna, fish, invertebrates) and 8 (plants).
7. Under Section 1(1) of the Act, all wild birds are protected such that it is an offence to intentionally:
  - Kill, injure or take any wild bird;
  - Take, damage or destroy the nest of any wild bird whilst in use\* or being built;
  - Take or destroy an egg of any wild bird.

\* The nests of birds that re-use their nests as listed under Schedule ZA1, e.g. Golden Eagle, are protected against taking, damage or destruction irrespective of whether they are in use or not.
8. Offences in respect of Schedule 1 birds are subject to special, i.e. higher, penalties. Schedule 1 birds also receive greater protection such that it is an offence to intentionally or recklessly:
  - Disturb any wild bird included in Schedule 1 while it is building a nest or while it is in, on or near a nest containing eggs or young;
  - Disturb dependent young of such a bird.

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<sup>1</sup> <http://www.parliament.uk/business/bills-and-legislation/secondary-legislation/statutory-instruments/>

9. Under Section 9(1) of the Act, it is an offence to:
  - Intentionally kill, injure or take any wild animal included in Schedule 5.
10. In addition, under Section 9(4) it is an offence to intentionally or recklessly:
  - Obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; or
  - Disturb any wild animal included in Schedule 5 while occupying a structure or place which it uses for that purpose.
11. Under Section 13(1) it is an offence:
  - To intentionally pick, uproot or destroy any wild plant listed in Schedule 8; or
  - Unless the authorised person, to intentionally uproot any wild plant not included in Schedule 8.
12. The Act also contains measures (S.14) for preventing the establishment of non-native species that may be detrimental to native wildlife, prohibiting the introduction into the wild of animals (releases or allows to escape) and plants (plants or causes to grow) listed under Schedule 9.
13. **Protection of Badgers Act 1992.** The Act aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It should be noted that the legislation is not intended to prevent properly authorised development. Under the Act it is an offence to:
  - Wilfully kill, injure, take, possess or cruelly ill-treat\* a Badger, or attempt to do so;
  - To intentionally or recklessly interfere with a sett# (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

\* the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence

# A sett is defined as “any structure or place which displays signs indicating current use by a Badger”. Natural England advice (June 2009) is that a sett is protected so long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger. Interference with a sett includes blocking tunnels or damaging the sett in any way
14. Licences can be obtained from the Statutory Nature Conservation Organisation (SNCO) for development activities that would otherwise be unlawful under the legislation, provided there is suitable justification. The SNCO for England is Natural England.
15. **Hedgerows Regulations 1997.** ‘Important’ hedgerows (as defined by the Regulations) are protected from removal (up-rooting or otherwise destroying). Various criteria specified in the Regulations are employed to identify ‘important’ hedgerows for wildlife, landscape or historical reasons.
16. **Countryside and Rights of Way (CRoW) Act for England and Wales 2000.** The CRoW Act provides increased measures for the management and protection of SSSIs and strengthens wildlife enforcement legislation. Schedule 12 of the Act amends the species provisions of the WCA 1981, strengthening the legal protection for threatened species. The Act also introduced a duty on Government to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

17. **Natural Environment and Rural Communities Act 2006.** Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as local planning authorities, in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when exercising their normal functions. 56 habitats and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (BAP).
18. **Conservation of Habitats and Species Regulations 2017 (as amended).** The Regulations enact the European Union's Habitats Directive (92/43/EEC) in the UK. The Habitats Directive was designed to contribute to the maintenance of biodiversity within member states through the conservation of sites, known in the UK as Special Areas of Conservation (SACs), containing habitats and species selected as being of EC importance (as listed in Annexes I and II of the Habitats Directive respectively). Member states are required to take measures to maintain or restore these natural and semi-natural habitats and wild species at a favourable conservation status.
19. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs)<sup>2</sup> classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites constitute the Natura 2000 network. The Regulations impose restrictions on planning decisions likely to significantly affect SPAs or SACs.
20. The Regulations also provide protection to European Protected Species of animals that largely overlaps with the WCA 1981, albeit the provisions are generally stricter. Under Regulation 43 it is an offence, *inter alia*, to:
  - Deliberately capture, injure or kill any wild animal of a European Protected Species;
  - Deliberately disturb any wild animals of any such species, including in particular any disturbance likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance;
  - Deliberately take or destroy the eggs of such an animal;
  - Damage or destroy a breeding site or resting place of such an animal.
21. Similar protection is afforded to European Protected Species of plants, as detailed under Regulation 47.
22. The Regulations do provide a licensing system that permits otherwise illegal activities in relation to European Protected Species, subject to certain tests being fulfilled.

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<sup>2</sup> Special Protection Areas (SPAs) are protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC) (aka the Birds Directive), which came into force in April 1979. SPAs are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.

## **Appendix 6322/3:**

Survey Data

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ECO & Project	6322 CONNATI'S QUAY SOUTH					Tin temperature relates to the warmth of the tins to touch - i.e cold, cool, warm or hot. Note that some tins may be different temperatures to others so on the form you could record for example cool - warm
Date and Time	6/5/22 13:00					
Surveyors	AN + CW					
Tin Temperature(s)	Warm					Other info 12 mph NE whds
Weather and Other Info	Start Temp °C: 16	End Temp °C: 17	Cloud Cover %: 0	Beaufort: 3	Rain: NONE	

Transect	Common Lizard			Slow Worm			Grass Snake			Other Reptiles	Other species	Have you read the H&S brief?
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile			
	Male	Female		Male	Female		Male	Female				
A												
B												
C												
D												
E												
F												
G												
H												
I												
J												
K												
L												
M												
N												
O												
P												
Q												
R												
S												
T												
U												
V												
W												
X												
Y												
Z												
TOTAL												

Comments
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PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

**Beaufort Scale:** 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.

**Rain:** Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

ECO & Project	6322 Connal's Quay South				Tin temperature relates to the warmth of the fins to touch - i.e. cold, cool, warm or hot. Note that some fins may be different temperatures to others so on the form you could record for example cool - warm
Date and Time	9/5/22				
Surveyors	UP/AC				
Tin Temperature(s)					Other info
Weather and Other Info	Start Temp °C:	End Temp °C:	Cloud Cover %:	Beaufort:	Rain:

cool

Transect	Common Lizard			Slow Worm			Grass Snake			Other Reptiles	Other species	Have you read the H&S brief?
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile			
	Male	Female		Male	Female		Male	Female				
A												
B												
C												
D												
E												
F												
G												
H												
I												
J												
K												
L												
M												
N	✓										Rabbit, wood mouse	
O	✓										mats piled up, redeployed	
P	✓										mats piled up, redeployed	
Q	✓										mats piled up, redeployed bushes	
R	✓											
S	✓											
T	✓											
U	✓										Mats missing only 3 left	
V	✓										Mats piled up, redeployed	
W	✓											
X												
Y												
Z												
TOTAL												

Comments

PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

Beaufort Scale: 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.  
 Rain: Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

ECO & Project	6322 Comal's Quay South					Tin temperature relates to the warmth of the lins to touch – i.e cold, cool, warm or hot. Note that some lins may be different temperatures to others so on the form you could record for example cool – warm
Date and Time	12/05/22 12.15					
Surveyors	MW + AD					
Tin Temperature(s)						Other info
Weather and Other Info	Start Temp °C: 14	End Temp °C: 16	Cloud Cover %: 65	Beaufort: 3	Rain: Dry	

Transect	Common Lizard			Slow Worm			Grass Snake				Other Reptiles	Other species	Have you read the H&S brief?	Yes
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile					
	Male	Female		Male	Female		Male	Female						
A														
B														
C														
D														
E														
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T	/													
U	/													
V	/													
W	/													
X														
Y														
Z														
TOTAL														

Comments
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PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

**Beaufort Scale:** 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.

**Rain:** Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

ECO & Project	6322, Canal's Quay South				Tin temperature relates to the warmth of the tins to touch – i.e. cold, cool, warm or hot. Note that some tins may be different temperatures to others so on this form you could record for example cool – warm
Date and Time	16/05/22 12.30 pm				
Surveyors	Adnan Nizar, George Jasper				
Tin Temperature(s)	None				Other info
Weather and Other Info	Start Temp °C: 18	End Temp °C: 20	Cloud Cover %: 100	Beaufort: 3	

Transect	Common Lizard			Slow Worm			Grass Snake			Other Reptiles	Other species	Have you read the H&S brief?	✓
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile				
	Male	Female		Male	Female		Male	Female					
A													
B													
C													
D													
E													
F													
G													
H													
I													
J													
K													
L													
M													
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Q													
R													
S													
T													
U													
V													
W													
X													
Y													
Z													
TOTAL													

Comments
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PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

Beaufort Scale: 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.  
 Rain: Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.



ECO & Project	Cannah's Quay - 6322 South				Tin temperature relates to the warmth of the tins to touch - i.e. cold, cool, warm or hot. Note that some tins may be different temperatures to others so on the form you could record for example cool - warm
Date and Time	10 am 7/7/22				
Surveyors	LP/mw				
Tin Temperature(s)	Cool				Other info
Weather and Other Info	Start Temp °C: 16	End Temp °C: 16	Cloud Cover %: 100	Beaufort: 4	

Transect	Common Lizard			Slow Worm			Grass Snake			Other Reptiles	Other species	Have you read the H&S brief? <input checked="" type="checkbox"/>
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile			
	Male	Female		Male	Female		Male	Female				
A												
B												
C												
D												
E												
F												
G												
H												
I												
J												
K												
L												
M												
N											Mats thrown in bushes	
O												
P												
Q											5 mats piled up, 2 missing	
R												
S											Mats used for target practice	
T												
U												
V												
W												
X												
Y												
Z												
TOTAL												

20  
10  
10  
10  
10  
13  
25

Comments
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PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

**Beaufort Scale:** 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.

**Rain:** Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

ECO & Project	Connah's Quay (6322) South					Tin temperature relates to the warmth of the tins to touch - i.e. cold, cool, warm or hot. Note that some tins may be different temperatures to others so on the form you could record for example cool - warm
Date and Time	27-7-22 Han					
Surveyors	AC+AN					
Tin Temperature(s)						Cool - warm
Weather and Other Info	Start Temp °C: 17	End Temp °C: 18	Cloud Cover %: 55	Beaufort: 1	Rain: DRY	Other info: Nothing found

Transect	Common Lizard			Slow Worm			Grass Snake			Other Reptiles	Other species	Have you read the H&S brief?	<input checked="" type="checkbox"/>
	Adults		Juvenile	Adults		Juvenile	Adults		Juvenile				
	Male	Female		Male	Female		Male	Female					
A													
B													
C													
D													
E													
F													
G													
H													
I													
J													
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U													
V													
W													
X													
Y													
Z													
TOTAL													

Comments

PLEASE NOTE THE ROUGH LOCATION OF ANY REPTILES FOUND ON THE TIN LOCATION PLAN

Beaufort Scale: 0-smoke rises vertically 1-Wind motion visible in smoke 2-Wind felt on exposed skin 3-Leaves and smaller twigs in constant motion 4-Small branches begin to move 5-Smaller trees sway 6-Large trees in motion, whistling heard in overhead wires 7-Whole trees in motion, some difficulty when walking into wind 8-Twigs broken from trees, cars veer on road 9-Light structural damage 10-Trees uprooted, considerable structural damage 11-Widespread structural damage 12-Considerable and widespread destruction to structures.  
 Rain: Dry, light rain, showers, heavy shower, misty etc. Please make a note of the rains start and stop time.

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