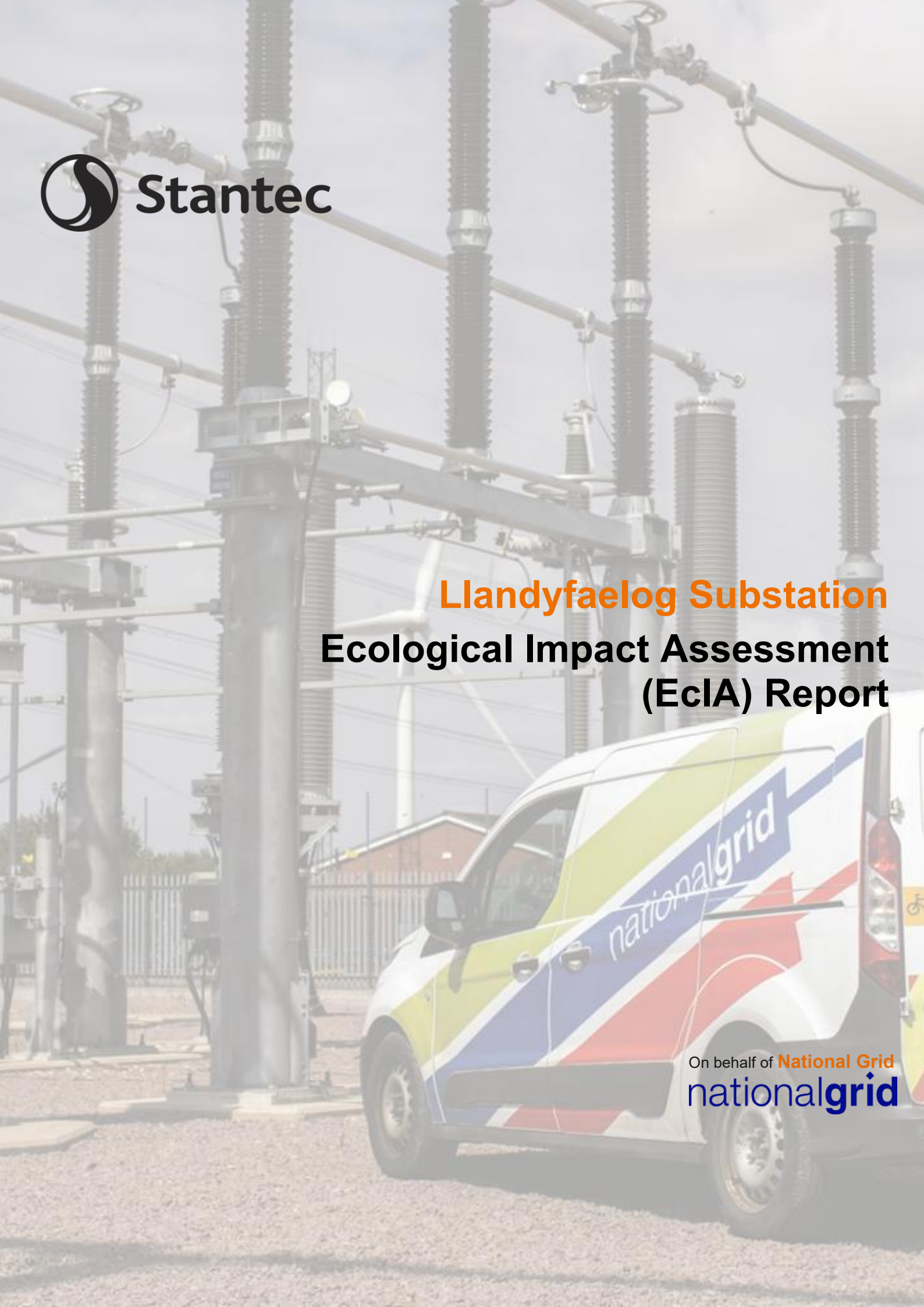

Stantec

Llandyfaelog Substation

Ecological Impact Assessment (EcIA) Report

On behalf of National Grid

nationalgrid

Ecological Impact Assessment Report

Llandyfaelog, Carmarthenshire

November 2025

Prepared for:
National Grid Electricity Transmission

Prepared by:
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Project Number:
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Executive Summary

National Grid Electricity Transmission (NGET) is proposing the construction of a new 400kV Air Insulated Substation (AIS) near Llandyfaelog, Carmarthenshire, South Wales. The development includes a substation platform, access road, overhead line modifications, drainage infrastructure, landscaping, and ecological enhancements. The Site comprises agricultural grassland fields bounded by hedgerows, with an area of ancient woodland to the south. This Ecological Impact Assessment (EcIA), prepared by Stantec, evaluates the potential effects of the Proposed Development on important ecology features.

The EcIA is based on detailed desk studies, field surveys conducted between 2024 and 2025, and consultation with Carmarthenshire County Council. Surveys covered habitats and species including bats, hazel dormouse, great crested newt and marsh fritillary. The assessment follows best practice guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM).

The desk study identified four internationally designated sites for nature conservation, and two nationally designated sites are located within the study area. The field surveys and desk study identified ancient woodland and habitats of principal importance (HPIs) including purple moor-grass and rush pasture, and native hedgerows as well as neutral grassland, modified grassland, mixed scrub and cropland within the Site. Protected and notable species recorded or likely to be present within the Site include hazel dormouse (confirmed breeding population), bats (including roosts), birds, reptiles, and species of principal importance.

The Proposed Development will result in the permanent loss of HPIs, including 2.9 ha of purple moor-grass and rush pasture and 2.7 km of hedgerows. However, no significant impacts are anticipated on nearby designated sites due to embedded mitigation and lack of direct connectivity.

Avoidance and mitigation measures include sensitive site design to avoid ancient woodland, a sustainable drainage strategy (SuDS), lighting design and precautionary working measures that will be described within a Construction Environmental Management Plan. Compensation and enhancement measures include the creation of native species-rich habitats: 3.2 ha of scrub, 0.5 ha of woodland, 10.2 ha of grassland, 0.2 ha of wetland ponds and SuDS basins, and 1.6 km of new hedgerows, with enhancement of up to 3.6 km of existing hedgerows and species-specific features such as bat boxes, dormouse nest tubes, reptile hibernacula, and bird boxes. These measures are designed to deliver measurable net benefits for biodiversity in line with Planning Policy Wales and the Environment (Wales) Act 2016. Long-term management and monitoring will be secured through a Landscape and Ecology Management Plan.

With the proposed mitigation, compensation, and enhancement measures in place, to be secured by appropriate planning mechanisms and Natural Resources Wales protected species licences, no significant residual ecological effects are anticipated, and the Proposed Development is considered ecologically acceptable and will support biodiversity conservation and ecosystem resilience in Carmarthenshire.

1 Introduction

1.1 Overview

1.1.1 Stantec was commissioned by National Grid Electricity Transmission (NGET) to undertake an Ecological Impact Assessment (EcIA) of the proposed development known as the Llandyfaelog Substation (hereafter referred to as the 'Proposed Development'). The Proposed Development is to be subject of a full planning application and this EcIA provides an assessment of the potential effects of the Proposed Development on important ecological features within the Site and the surrounding area, to inform decision-making.

1.2 Site Location and Proposed Development Description

1.2.1 The Proposed Development is comprised of the following principal elements:

- Construction of a single level platform (260 metres (m) by 640 m) on which an Air Insulated Substation (AIS) is sited measuring 155 m by 602 m.
- Bellmouth access to the A484 with an operational access road to connect the platform to the A484.
- Modification works to the existing 400kV Overhead Line (OHL) to connect the substation to the existing OHL involving the installation of two new towers (pylons) and one replacement tower (pylon) circa 18 m and 62 m.
- Associated drainage, and hard and soft landscaping.

1.2.2 The Proposed Development site (hereafter referred to as "the Site") comprises agricultural grassland fields bound by hedgerows with an area of ancient woodland to the south of the Site. See **Appendix A, Figure 1** for the Site location plan

1.3 Report Objectives

1.3.1 This report sets out the EcIA of the Proposed Development, with the objectives to:

- Outline the methods, with reference to relevant survey guidance, for determining the ecological baseline for the Site and the methods for ecological assessment.
- Describe the ecological baseline, providing a summary of the key results of the desk study and detailed ecological survey reports, to determine the important ecological features within the zone of influence[1] of the Proposed Development.
- Assess the potential impacts arising from the Proposed Development on important ecological features during construction and operation, taking into account mitigation measures that are embedded in the schemed design or delivery.
- Outline any requirement for further ecological mitigation and compensation measures so that the Proposed Development avoids contravention of legislation and enables compliance with relevant planning policy.

[1] The zone of influence is the area within which ecological features may be affected by a proposed development, including both direct and indirect impacts.

2 Methods

2.1 Overview

2.1.1 This EcIA has been informed by both desk study and field surveys, with the scope of the field surveys discussed and agreed with Carmarthenshire County Council. This section describes the approach taken to the desk study and provides a summary of the field survey methods used for habitat and protected or notable species surveys. Furthermore, this section describes the approach taken for the evaluation of important ecological features and the ecological impact assessment methodology used.

2.2 Desk Study

2.2.1 Designated areas within proximity of the Site were identified using MAGIC maps (https://magic.defra.gov.uk/) and DataMapWales (https://datamap.gov.wales/) including:

- international designations within 10 km of the of the Site boundary;
- national designations and Local Nature Reserves (LNRs) within 2 km of the Site boundary; and
- Habitats of Principal Importance (HPIs) and ancient woodland within 0.5 km of the Site boundary.

2.2.2 Ordnance Survey maps (1:25,000) and aerial images of the Site were examined online (bing.com/maps and Google Earth Pro).

2.2.3 Data on non-statutory sites of nature conservation interest (Sites of Nature Conservation Interest (SINCs)) within 2 km of the Site boundary were obtained from Aderyn (the Biodiversity Information and Reporting Database of Local Environmental Records Centres Wales), along with records of protected and notable species, restricted to records from the past 10 years.

2.3 Survey Area – Field Surveys

2.3.1 The Survey Area for the majority of the field surveys encompassed the Site (Planning Application boundary), as well as the wider area assessed to inform the Environmental Impact Assessment Screening (Stantec 2025). The survey methods presented in this EcIA (Section 2.4) are summarised from the individual species reports (see full Reference list at Section 6) including:

- Habitats and Designated Sites Report;
- Protected Species Walkover Report;
- Badger Survey (Confidential);
- Bat Activity Survey Report;
- Bat Roost Resource Report;
- Hazel Dormouse 2024 Survey;
- Hazel Dormouse Habitat Suitability Assessment;
- Great Crested Newt Report; and
- Marsh Fritillary Survey Report.

2.3.2 The Ecological Baseline (Section 3.3 and 3.4) presents the habitats, protected and notable species survey results from the planning application Site boundary only, as extracted from the individual habitat and species reports.

2.4 Survey Methods

2.4.1 Ecological survey work was completed in 2025 to provide the baseline for the purposes of assessment to inform the ecological assessment in this report. The field survey methods and dates are summarised in Table 2-1. A full description of field survey methods are included in the individual technical reports (see full Reference list at Section 6).

2.4.2 Specific surveys for birds and reptiles were not undertaken, as agreed with Carmarthenshire County Council Ecologist (See Section 2.6.2) but are considered in the assessment based on desk study, habitat suitability and on-site incidental observations.

Table 2-1 Field Survey Methods

Ecology Survey	Field Survey Methods
UK Habitat Classification Survey	The habitat survey was undertaken between the 19 - 21 of May and 2 and 3 June 2025 in accordance with the UK Habitat (UKHab) Classification methodology version 2.0 (UKHab Ltd, 2023), which is a comprehensive approach to surveying and classifying habitats. The UKHab Classifications were mapped using a mobile Geographic Information System (GIS) with primary codes and secondary codes and a description providing detail relating to the habitat composition/ mosaic, origins, management and details of component plant species and abundances (assessed using the DAFOR scale). Sampling quadrats were taken within each habitat parcel to identify its species composition.
Protected Species Walkover Survey	A walkover survey for protected species was undertaken on the 1, 2 and 13 May 2025 in accordance with CIEEM's guidelines for Preliminary Ecological Appraisal (CIEEM, 2017). The survey comprised a thorough search of the survey area for signs of badger *Meles meles* activity in accordance with current guidance (Harris *et al.*, 1989), as well as an assessment of habitat suitability for a range of other protected species known to be present in Wales including hazel dormouse *Muscardinus avellanarius*, otter, water vole *Arvicola amphibius*, breeding and wintering birds, reptiles, great crested newt *Triturus cristatus* and species of principal importance. Surveyors recorded field signs and habitat features within mobile GIS.
Bats	Bat roost resource surveys were undertaken in accordance with best practice guidance (Collins, 2023). A Ground Level Tree Assessment (GLTA) of trees was undertaken on 1 and 2 May 2025 to identify trees with potential roost features (PRFs). To enable closer assessment of PRFs, aerial inspections were undertaken using rope-access climbing techniques over three survey periods: 19–20 May, 7–8 July and 12–13 August 2025. Trees assessed with PRF-I during the GLTA and first inspection were only climbed in May, whereas tress assessed as PRF-M were climbed within all three survey periods.
	In accordance with the Bat Survey Guidelines (Collins, 2023), a combination of Nighttime Bat Walkover (NBW) surveys and static bat detector surveys were undertaken of all habitats within the Site, between April and October 2025. A total of six static bat detectors were deployed across the Site for the survey season and three NBW transects were walked in spring, summer and autumn, providing full coverage of the Site.
Hazel dormouse	Dormouse nest tube surveys were undertaken in 2024 in the accordance with Dormouse Conservation Handbook (Bright *et al.* 2006), the current guidance available at the time of survey. 106 dormouse nest tubes were deployed on 25 July and checked on 29-30 August, 26 September, 29 October and 26 November 2024.

Ecology Survey	Field Survey Methods
	A subsequent dormouse habitat quality assessment of all hedgerows, scrub and woodland within the Site was undertaken between the 19 and 21 May and 2 and 3 June 2025 in accordance with survey methods detailed in the Hazel Dormouse Mitigation Handbook (Wells *et al.* 2025). The resulting habitat quality categories were used to determine the density of breeding dormice within the Site.
Great crested newt	eDNA surveys were undertaken in line with guidance (Biggs *et al.*, 2014). Water samples were collected from waterbodies within 250m (where access allowed) on 18 June 2025 and samples were analysed by Surescreen.
Marsh fritillary	The marsh fritillary survey was undertaken in accordance with the UK Butterfly Monitoring Scheme (UKBMS) protocols (UKBMS, undated). A habitat suitability assessment (HAS) and larval web survey was carried out on the 19 August 2025, when webs are most conspicuous on suitable foodplants such as devil's-bit scabious *Succisa pratensis*. The HSA recorded the following habitat features with suitability for marsh fritillary across the Site: • abundance and distribution of devil's-bit scabious; • sward structure and vegetation composition; • grazing intensity and management practices; and • habitat connectivity to adjacent land parcels. During the larval web survey, the surveyor walked parallel transects across all areas of suitable habitat at regular intervals, ensuring complete coverage of scabious-rich patches. If present, larval webs were recorded with a handheld GPS, and the number of larvae per web was noted where visible.

2.5 Limitations

2.5.1 The specific limitations associated with the surveys listed above are described in each of the species' reports; whilst none of the limitations are deemed significant, they have been taken into account in the evaluation and assessment in this EcIA.

2.6 Consultation

2.6.1 Comments were received from Simeon Jones, Senior Ecologist at Carmarthenshire County Council as part of a pre-application enquiry and the following requirements were noted:

- Ecological desk study including data from the Local Records Centre.
- Ecological assessment including habitat and protected species surveys.
- Retention and appropriate management of woodland, tree lines and hedgerows. If retention of hedgerows is not possible translocation of hedgerows should be sought. If translocation is not a feasible option, then a suitable compensation replanting scheme will be required.
- Net Benefit for Biodiversity (NBB) and Green Infrastructure Statement
- Detailed lighting plan - prior to the installation of any lighting during construction / operation
- Shadow Habitats Regulations Assessment

2.6.2 A meeting was held with Simeon Jones on Tuesday 17 December to discuss survey scope to inform the planning application. A summary of discussion topics and agreed outcomes from a subsequent meeting are summarised in Table 2-2.

Table 2-2: Summary of Council Expectation of Surveys to Inform the Planning Application and Agreed Outcomes

Topic	Agreed Outcome
Phase 1 habitat survey including identification of invasive species	Habitats within the site have been mapped using UK Habitat Classification survey to date. It was agreed that this method is an acceptable alternative to Phase 1 habitat survey.
Reptiles – if suitable habitat is to be removed	Targeted reptile surveys will not be required if there is low availability of suitable habitat and habitat losses are limited.
Dormice – assess impact in relation to removal of hedgerows	Dormouse surveys undertaken in 2024 confirmed the presence of dormice within the Site. It was agreed that no further dormouse surveys are required to inform the planning application.
Bats – assess impact in relation to removal of hedgerows	A suite of bat roost and bat activity surveys will be undertaken of the Site to i) assess the bat tree roosting resource and confirm presence or likely absence of bat roosts, and ii) assess the assemblage of bats foraging and commuting within the site.
Riparian mammals	Otter and water vole surveys will not be required if watercourses and/ or drainage ditches do not support suitable habitat or will not be impacted by the proposals.
Badgers – survey of site and surrounding land up to 30m from boundary	A search for badger setts within the planning application boundary +30m is required. Updated surveys will be required prior to construction.
Great crested newt eDNA	Agreed this could be scoped out on basis that there is no suitable breeding habitat within the site, and the nearest pond is >250 m from the development footprint
Breeding birds	Agreed this could be scoped out on the basis that the site is dominated by cattle grazed fields of low suitability for ground nesting birds, and hedgerow replacement planting (at the required ratio of 2:1) will mitigate for loss of nesting and foraging resource for passerine species.

2.7 Ecological Evaluation and Impact Assessment Method

Evaluation

2.7.1 The importance of ecological features potentially affected by the Proposed Development were evaluated with regard to CIEEM's Guidelines for Ecological Impact Assessment in the UK and Ireland (hereafter referred to as 'the CIEEM Guidelines') (CIEEM, 2024). The CIEEM Guidelines recommend that valuation of ecological features associated with a site is made with reference to a geographical framework, i.e. a feature may be of importance within the following context:

- International and European
- National (Wales)
- Regional (Southwest Wales)
- County (Carmarthenshire)
- Local (Llandyfaelog)
- Less than Local (Site)
- Negligible

2.7.2 The evaluation process allows the identification of 'important ecological features' which, in the context of this assessment were deemed to be any feature considered to be of importance within the 'Local' context or greater. All 'important ecological features' were carried forward for detailed impact assessment, whilst other identified features (i.e. those assessed as being of less than Local importance) were excluded from further assessment given that impacts on such features are considered insignificant regardless of the nature or magnitude of the potential impact.

2.7.3 Where protected or notable species of less than 'Local' importance were recorded, they are considered with respect to enable compliance with relevant wildlife legislation, where required.

Impact Assessment

2.7.4 The evaluation, impact assessment and application of the mitigation hierarchy[2] has been undertaken in line with CIEEM Guidelines, applicable legislation, planning and biodiversity policy as outlined in **Appendix B** .

2.7.5 Ecological input has been provided during the design process for the Proposed Development; and as such, 'embedded avoidance and mitigation' with respect to ecological features are included within the Proposed Development. The impact assessment therefore considers the impacts of the scheme and assesses the ecological effects taking account of the embedded avoidance and mitigation measures. This approach is in accordance with the CIEEM guidelines which promotes the assessment of effects of the mitigated scheme only, where there is high confidence that integrated mitigation will be implemented; as in this situation.

2.7.6 Once 'important ecological features' have been identified, any resulting impacts from the Proposed Development, taking into account the inherent scheme design, can be fully determined. Potential impacts may be direct or indirect and could occur in one or more of the project phases (e.g., construction or operation).

2.7.7 Following characterisation of each impact, an assessment is made with regards to whether or not the resulting effect on the 'important ecological feature' is deemed to be 'significant' or not in ecological terms. This is determined in relation to the structure and function of defined sites, habitats, or ecosystem(s) and / or the conservation status of habitats or species with reference to a given geographical area.

2.7.8 Where an 'important ecological feature' is likely to experience a significant adverse effect, a sequential process has then been adopted to avoid, mitigate, and compensate ecological impacts (often referred to as the 'mitigation hierarchy').

2.7.9 An assessment of residual impacts to determine the significance of their effects on the 'important ecological features' is then described. Any residual impacts that will result in effects that are significant, and any proposed compensatory measures are then determined. Furthermore, the ecological enhancement to enable delivery of Net Biodiversity Benefit is described.

Terminology

2.7.10 Use of the terms 'impact' and 'effect' within the impact assessment follow the definitions as defined within CIEEM Guidelines. An 'impact' is defined as an action that results in changes to an ecological feature e.g. when a proposed development requires the removal of a tree with bat roost features. An 'effect' is the outcome to an ecological feature from an impact e.g. the effects on a bat population from the loss of a tree with bat roost features. The construction and operation impacts of the Proposed Development and associated effects on important ecological features are based on the proposed works description and plans.

2.7.11 Similarly, the terms 'mitigation' and 'compensation' follow the definitions defined with the CIEEM Guidelines, which are as follows.

2.7.12 Mitigation: measures taken to avoid or reduce negative impacts and effects. Measures may include: locating the development and its working areas and access routes away from areas of high ecological interest, fencing off sensitive areas during the construction period, or timing works to avoid sensitive periods. An example of a reduction measure is a reed bed silt trap that is designed to minimise the amount of polluted water running directly into an ecologically important watercourse. Depending on circumstances, mitigation measures may be located within or outside the project site.

2.7.13 Compensation: measures taken to offset the loss of, or permanent damage to, ecological features despite mitigation. Any replacement area should be similar in terms of biological features and ecological functions that have been lost or damaged, or with appropriate management have the ability to reproduce the ecological functions and conditions of those biological features. Compensation addresses negative effects which are residual, after

[2] Mitigation Hierarchy – Avoidance, Mitigation, Compensation & Enhancement

avoidance and mitigation have been considered. It is this objective of compensation, and not its location, that distinguishes compensation from ‘mitigation’. Depending on circumstances, compensation measures may be located within or outside the project site.

2.8 Report Qualification

2.8.1 All survey work and assessment was undertaken by experienced and qualified ecologists, in accordance with CIEEM’s Code of Professional Conduct (CIEEM 2022).

2.8.2 All ecological surveys have an expected validity period owing to the tendency of the natural environment to change over time. This validity period varies from receptor to receptor and is also dependent on the degree of change in a site's management and overall landscape ecology. Where the potential for change is considered to be relevant to the Site, this is highlighted in the appropriate section. Regardless, if the Proposed Development does not commence within 12-18 months of the date of this report, the findings of this report should be reviewed, and a re-survey and re-assessment of the Site should be undertaken if deemed necessary by a suitably qualified ecologist.

2.8.3 This report does not purport to provide detailed, specialist legal advice. Where legislation is referenced, the reader should consult the original legal text, and/or the advice of a qualified environmental lawyer.

3 Ecological Baseline

3.1 Overview

3.1.1 This section provides a summary of the of findings of the desk study and survey work and provides an evaluation of the identified important ecological features in the context of the CIEEM geographical framework. This supports determination of those feature(s) requiring further consideration in terms of impact assessment.

3.1.2 Full descriptions of the results are provided in the individual technical reports submitted along with this EcIA with the planning application for the Proposed Development (see full Reference list at Section 6).

3.1.3 A summary of relevant legislation and planning policy is provided in **Appendix B** .

3.2 Designated Sites

3.2.1 Table 3-1 provides a summary of the designated sites within the study area including their location in relation to the Site and their reasons for designation and importance.

3.2.2 **Appendix A, Figure 2** shows the internationally designated sites within study area, **Appendix A, Figure 3** shown the nationally and locally designated sites and **Appendix A, Figure 4** shows the ancient woodland and HPIs.

Table 3-1 Summary of Designated Sites in the Study Area

Designated Site	Location	Summary of Reason for Designation
Statutory Designated Sites of International Importance		
Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd Special Area of Conservation (SAC)	Located 1.4 km west of the Site, ecologically connected via ditches and watercourses	Annex I habitats that are a primary reason for site selection: • 1110 Sandbanks which are slightly covered by sea water all the time • 1130 Estuaries • 1140 Mudflats and sandflats not covered by seawater at low tide • 1160 Large shallow inlets and bays • 1310 Salicornia and other annuals colonizing mud and sand • 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Annex II species that are a primary reason for site selection: • 1103 Twaite shad *Alosa fallax* Annex II species present as a qualifying feature: • 1095 Sea lamprey *Petromyzon marinus* • 1099 River lamprey *Lampetra fluviatilis* • 1102 Allis shad *Alosa alosa* • 1355 Otter *Lutra lutra*
Afon Tywi / River Tywi SAC	Located 4.3 km north of the Site, potentially connected hydrologically via ditches and watercourses but located	Annex II species that are a primary reason for site selection: • 1103 Twaite shad • 1355 Otter Annex II species present as a qualifying feature: • 1095 Sea lamprey • 1096 Brook lamprey *Lampetra planeri* • 1099 River lamprey • 1102 Allis shad • 1163 Bullhead *Cottus gobio*

Designated Site	Location	Summary of Reason for Designation
	downstream from the SAC.	
Carmarthen Bay Dunes / Twyni Bae Caerfyrddin SAC	Located 8.6 km south west of the Site.	Annex I habitats that are a primary reason for site selection: • 2110 Embryonic shifting dunes • 2120 "Shifting dunes along the shoreline with Ammophila arenaria (""white dunes"")" • 2130 "Fixed coastal dunes with herbaceous vegetation (""grey dunes"")"* Priority feature • 2170 Dunes with Salix repens ssp. argentea (Salicion arenariae) • 2190 Humid dune slacks Annex II species that are a primary reason for site selection: • 1014 Narrow-mouthed whorl snail *Vertigo angustior* • 1395 Petalwort *Petalophyllum ralfsii* • 1903 Fen orchid *Liparis loeselii*
Bae Caerfyrddin / Carmarthen Bay Special Protection Area (SPA)	Located 9.7 km south west of the Site.	Designated for overwintering common scoter *Melanitta nigra*
Statutory Designated Sites of National Importance		
Coed Gwempa Site of Special Scientific Interest (SSSI)	1.4 km south-east of the Site	A 19-hectare semi-natural woodland, notable for its diverse woodland types and rich ground flora. The site includes oak *Quercus* sp. – bracken *Pteridium aquilinum* woodland on poorer soils, ash *Fraxinus excelsior* –rowan *Sorbus aucuparia* woodland on slightly drier ground, and alder *Alnus glutinosa* woodland in waterlogged areas. A well-developed shrub layer features hazel *Corylus avellana* coppice, hawthorn *Crataegus monogyna*, elder *Sambucus nigra* and willows *Salix* spp.. The ground flora is dominated by common woodland species, with wetter areas supporting plants like opposite-leaved golden saxifrage *Chrysosplenium oppositifolium*, moschatel *Adoxa moschatellina*, sanicle *Sanicula europaea*, and the locally scarce rough horsetail *Equisetum hyemale*. In more open parts of the site, varied vegetation includes species typical of grassland, marsh, and mire, along with notable fauna such as the red-tipped clearwing moth *Synanthedon formicaeformis* at its only known Welsh site, and a strong population of dark bush-crickets *Pholidoptera griseoaptera*.
Afon Tywi SSSI	1.4 km west of the Site and ecologically connected via ditches and watercourses	Designated for its diverse and dynamic riverine habitats. Extending from Llandovery to the Afon Taf confluence, it supports a mosaic of aquatic and marginal flora, saltmarsh communities, and unvegetated shingle banks important for invertebrates and breeding birds. The river is of national significance for otter, twaite and allis shad, sea trout, Atlantic salmon, lampreys, and the freshwater pearl mussel *Margaritifera margaritifera*. Breeding bird populations include little ringed plover *Charadrius dubius*, kingfisher *Alcedo atthis*, sand martin *Riparia riparia*, and common sandpiper *Actitis hypoleucos*, with overwintering estuarine birds using the tidal reaches. The invertebrate fauna includes nationally scarce species, particularly associated with the extensive shingle banks.
Designated Sites of County Importance		

Designated Site	Location	Summary of Reason for Designation
None within 2 km of Site boundary		
Ancient Woodland and Habitats of Principal Importance of County Importance		
Ancient Woodland	Ancient Semi-Natural Woodland located within the Site	Ancient Semi-Natural Woodland, Restored Ancient Woodland and Plantation on Ancient Woodland sites.
HPI - Purple moor grass and rush pastures	Located within the Site.	Purple moor grass and rush pastures

3.3 Habitats

3.3.1 Table 3-2 summarises the results of the field surveys with respect to habitats within the Site, including an evaluation of their importance.

3.3.2 **Appendix A, Figure 5** shows the UKHab habitats recorded within the Site.

Table 3-2: Summary of Habitats within the Site

UK Habitat Classification Type	Summary Description and Rationale for Evaluation	Importance
Other neutral grassland [g3c]	Most of the fields had moderate grass species richness but poor forb diversity and coverage. One field supported scattered soft rush *Juncus effusus* and lesser spearwort *Ranunculus flammula*, indicating a history of purple moor-grass and rush pasture. Management of this habitat likely includes a hay cut and/ or grazing.	Local
Modified grassland [g4]	The dominant grasses were perennial rye-grass *Lolium perenne* and rough meadow-grass *Poa trivialis*. Forb diversity was very low, limited to white clover *Trifolium repens*, dandelion *Taraxacum officinale* agg., docks *Rumex* spp., creeping buttercup *Ranunculus repens* and creeping thistle *Cirsium arvense*. Some wetter areas of grassland had scattered soft rush in the sward. Management of this habitat likely includes a hay/silage cut and/or grazing.	Less than Local
Purple moor-grass and rush pastures [f2b]	This habitat had regular indicator species of purple moor-grass in almost all quadrats. Species present indicated a regular, high-water table and rushes were dominant but spread out enough and even, so that other species were able to grow in the sward Some areas were rich in sedges. Common indicators included lesser spearwort, whorled caraway *Carum verticillatum* and ragged robin *Silene flos-cuculi*. The field located at the entrance to the Site had small numbers of devil's-bit scabious *Succisa pratensis.* One field located near the centre of the Site was degraded to the point that it could be considered 'other neutral grassland' but mapped as purple moor grass and rush pasture because on balance this habitat was considered the most appropriate albeit in poor condition. In many areas of the field, the rushes are sparse, and grasses are dominant. Coverage of species indicative of sub-optimal condition are prevalent, notably creeping buttercup and white clover.	County
Lowland mixed	This ancient ash/ oak woodland is located to the south of the Site, it had a mature canopy, understorey, shrub layer and ground flora.	Regional

UK Habitat Classification Type	Summary Description and Rationale for Evaluation	Importance
deciduous woodland [w1f]	Forbs along the edge of the woodland were indicative of wetter ground. The woodland ground flora contained ancient woodland indicators, including wood anemone *Anemone nemorosa*, yellow archangel *Lamiastrum galeobdolon*, and bluebell *Hyacinthoides non-scripta*. This area is listed as an Ancient Woodland Site	
Mixed scrub [h3h]	A small area of scrub on a steep incline/cliff isolated from other areas of scrub was located surrounding a small quarry area, adjacent to a farm access track.	Less than Local
Cropland [c]	A small area of arable cultivated ground, growing maize *Zea mays* was located in the north of the Site.	Negligible
Artificial unvegetated - unsealed surface [u1c]	Farm tracks	Negligible
Other native hedgerow [h2a6]	Species-poor hedgerows that were dominated by blackthorn *Prunus spinosa* and hawthorn *Crataegus monogyna*. Most hedgerows were well maintained, bushy and wide with few to no gaps. Most hedgerows were around 2m tall. Almost all hedgerows were planted on or adjacent to a bank. Some hedgerows were associated with a ditch or standard trees. All hedgerows with native species are a HPI.	Local
Species-rich native hedgerow [h2a6]	A large proportion of the hedgerows in the Site were species-rich and in good condition, with few gaps, measuring between 1.5 and 3m in height and width, mostly associated with a bank, and generally free of damage, nutrient enrichment and disturbed ground. Some hedgerows were associated with mature or semi-mature standard trees and or ditches. All hedgerows with native species are a HPI.	County
Ditch [r]	Ditch not associated with any hedgerows for part of its length but forming the boundary between two modified grassland fields. The ditch was dominated by a small number of species, although diversity was higher than the adjacent fields. No water was visible during the survey, although the vegetation was dense and there may have been a small amount of water.	Less than Local

3.4 Protected and Notable Species

3.4.1 Table 3-3 summarises the results of the desk study and field survey with respect to species, including an evaluation of their importance.

3.4.2 Species have been scoped out of this report when no records were returned for the species during the desk study and no habitats with suitability to support the species were present on the Site.

Table 3-3: Summary of Protected and Notable Species

Species/ Species Group	Summary Description	Importance
Badger	No records of badger were returned from the records centre. Outlier badger setts were recorded within the Site with limited evidence of activity.	Less than Local

Species/ Species Group	Summary Description	Importance
Otter	Two records were returned from the records centre with the closest record from the Gwendraeth Fach located 900 m south of the Site. Three ditches were recorded within the Site providing limited suitability for commuting otter. No field signs of otter were recorded.	Negligible
Water vole	No records of water vole were returned from the records centre. Three ditches are located within the Site, all three ditches were assessed as being unsuitable for water vole due to lack of water, heavy shading or isolation from wider watercourse network.	N/A
Bats	Nine bat records were returned from the records centre, including roost records for brown long-eared *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, and whiskered bat *Myotis mystacinus* from Iodle School, located 1.95 km north of the Site. A record of greater horseshoe bat *Rhinolophus ferrumequinum* was also returned from a location 2.44 km from the Site. Field surveys identified 41 trees with PRFs, of which 22 were subject to aerial inspections. One tree was confirmed to support a day roost, 22 trees were classified as PRF-M, and 13 trees were classified as PRF-I. Some of the trees with PRFs were downgraded to negligible following aerial inspection. No maternity or hibernation roosts were confirmed. The roosting resource within the Site is considered consistent with the surrounding agricultural landscape, which includes field hedgerows and pockets of ancient woodland. Therefore, the roost resource is considered to be of Site importance. Bat activity surveys recorded at least nine species within the Site. The assemblage was dominated by soprano pipistrelle and common pipistrelle. Noctule *Nyctalus noctula*, *Myotis* spp., and serotine *Eptesicus serotinus* were present in low to moderate numbers. Brown long-eared, greater horseshoe, Nathusius's pipistrelle *Pipistrellus nathusii* and barbastelle *Barbastella barbastellus*, were recorded infrequently. The bat assemblage provides a score of 27, which falls within the threshold for regional importance (based on Reason and Wray, 2023, which assesses conservation value by combining species rarity, assemblage composition, and regional thresholds). Within this assessment, Myotis species have been grouped, with an assumed presence of four species due to their difficulty to confidently identify to species level. The Site supports a variety of habitats used by commuting and foraging bats, dominated by pasture, mature hedgerows, and an area of ancient woodland in the south. Records of rarer species such as Nathusius's pipistrelle, barbastelle, and greater horseshoe were infrequent, suggesting these species likely commute through the Site occasionally to forage elsewhere in the landscape or within the Site, but the Site does not form part of their core sustenance zone. The Site is considered an important resource for foraging and commuting bats. However, given the dominance of common and widespread species, infrequent use by rarer species, presence of only one confirmed low importance roost, and the similarity of habitats to the surrounding landscape, the bat assemblage within the Site is assessed to be of County importance.	County
Hazel dormouse	Two records were returned from the records centre for the past 10 years, with the closest located within Nant Morlais woodland, 2 km from the Site, with ecological connectivity (via woodland and hedgerows) to the Site. Three records from 2010 were also returned for the Site.	County

Species/ Species Group	Summary Description	Importance
	The presence of dormouse on the Site was confirmed during surveys undertaken in 2024 and habitat quality assessments of the Site confirmed the following habitats with suitability for dormouse within the Site: • 0.95 km of hedgerow with poor quality; • 0.32 km of hedgerow with fair quality; • 6.46 km of hedgerow with good quality; • 0.49 km of hedgerow with excellent quality; • 0.11 ha of woodland or scrub with poor quality; • 0.03 ha of woodland or scrub with good quality; and • 0.85 ha of woodland or scrub with excellent quality. Based on the confirmed presence of dormice within the Site and the consideration of habitat quality following good practice guidance, it is estimated that the Site (specifically the woodland, scrub and hedgerows within the Site boundary) supports 47 breeding adult dormice.	
Breeding birds	Records of the Birds of Conservation Concern (BoCC) Wales Red and Amber List species were returned from the records centre. All hedgerows, scrub and woodland are considered suitable for breeding farmland, scrubland and woodland birds, as well as generalist species. Larger trees also have the potential to support breeding raptors. Red kite *Milvus milvus*, buzzard *Buteo buteo* and sparrowhawk *Accipiter nisus* were all recorded within the Site during the survey. Suitability for ground nesting species is limited by the presence of livestock and regular trees, hedge banks and pylons. However, singing skylark *Alauda arvensis* were recorded within or adjacent to the Site. The ancient woodland in the south of the Site may support rare or declining woodland birds, including pied flycatcher *Ficedula hypoleuca*, common redstart *Phoenicurus phoenicurus* and spotted flycatcher *Muscicapa striata* although no specific bird surveys have been undertaken.	Local
Wintering birds	Records of the BoCC Wales Red and Amber List species were returned from the records centre including green sandpiper *Tringa ochropus* (amber) and mistle thrush (amber) were returned from the records centre. The Site is not considered suitable for green sandpiper. Wetter fields are likely to support wintering snipe *Gallinago gallinago*. lapwing *Vanellus vanellus* may also be present, although likely in low numbers if present. Purple moor grass and rush pastures may also support foraging raptors during winter, notably short-eared owl *Asio flammeus*. Although the Site is unlikely to support a significant wintering farmland bird population due to the absence of large areas of arable land or large waterbodies.	Less than Local
Reptiles	Two records of slow worm *Anguis fragilis* were returned from the records centre. Purple moor grass and rush pasture and hedgerow and woodland edge are considered suitable to support common and widespread reptiles. A common lizard *Zootoca vivipara* was recorded in the north-west corner of the Site, on the hedge bank on the northern edge of the purple moor grass and rush pasture.	Local
Amphibians including great crested newt	No records of great crested newt were returned from the records centre, although one record of common toad was returned. Terrestrial habitat on the Site including tussocky grassland and hedgerows are suitable for amphibians. Three waterbodies are located within 250 m of the Site. All three waterbodies are located to the south-	Less than Local

Species/ Species Group	Summary Description	Importance
	east of Crugan Fach, to the south of the Site. No ponds are located within the Site, and all ditches were either dry or held running water unsuitable for breeding great crested newt. eDNA analysis of the most suitable pond returned a negative result. The two other ponds were of low suitability for great crested newts and are unlikely to support breeding populations. As such, great crested newt are considered absent from the Site, although common toad may be present on the Site.	
Invertebrates	Records of invertebrates listed as SPIs were returned from the records centre[3] including black oil-beetle *Meloe proscarabaeus* and dingy skipper *Erynnis tages.* The black oil-beetle is most commonly found on wildflower-rich coastal cliff tops and lowland, unimproved grasslands (Buglife, undated), as such, is considered unlikely to be present on the Site. The larval food plants for dingy skipper (common bird's-foot-trefoil *Lotus corniculatus* horseshoe vetch *Hippocrepis comosa* greater bird's-foot-trefoil *L. pedunculatus*) weren't recorded within the Survey Area (Butterfly Conservation, undated), as such, it is considered unlikely to be present on the Site. Purple moor grass and rush pasture can support nationally scarce invertebrates reliant on specific hydrological and vegetation conditions, although the purple moor grass and rush pasture recorded on the Site is in sub optimal condition with limited floral diversity, so unlikely to support an important assemblage of invertebrates. One area of purple moor grass and rush pasture in the north-west of the site had devil's-bit scabious in the sward, which is the larval food plant of the marsh fritillary butterfly, although surveys confirmed likely absence of this species. The habitat diversity on the Site including the purple-moor grass and rush pasture, hedgerows and woodland could support a range of invertebrate species.	Less than Local
Other Species of Principal Importance (SPIs)	Ten records for hedgehog *Erinaceus europaeus* were returned from the records centre. Although not observed on the Site, habitats including tussocky grassland, woodland, scrub and hedgerows have suitable for hedgehog, polecat *Mustela putorius*, brown hare *Lepus europaeus* and harvest mouse *Micromys minutus*.	Less than Local
Invasive non-native species	The following invasive non-native species (INNS) listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) where returned from the records centre: • Entire-leaved cotoneaster *Cotoneaster integrifolius* • Himalayan balsam *Impatiens glandulifera* • Japanese knotweed *Fallopia japonica* • Japanese rose *Rosa rugosa* • Rhododendron *Rhododendron ponticum* No INNS were recorded within the Site although Japanese rose was recorded within the wider survey area within a hedgerow adjacent to the farm track to the north of the Site.	N/A

3.5 Summary of Important Ecological Features

3.5.1 A summary of the evaluation of the above ecological features with reference to the geographical framework defined in **Section 2.7** is provided in Table 3-4. Those ecological

[3] NB: species included as a SPI for research only have not been included.

features identified of Local value and above are considered to be important ecological features which are taken forward in this assessment. Where ecological features require mitigation in order to enable legal compliance (with legislation outlined in **Appendix B**), these features are considered in the assessment for this purpose, even if their value is less than Local.

Table 3-4 Summary of Important Ecological Features

Ecological Feature	Importance
Designated Sites	
Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC	International
Afon Tywi / River Tywi SAC	International
Carmarthen Bay Dunes / Twyni Bae Caerfyrddin SAC	International
Bae Caerfyrddin / Carmarthen Bay SPA	International
Coed Gwempa SSSI	National
Afon Tywi SSSI	National
Habitats	
Lowland mixed deciduous woodland – ancient woodland	Regional
Purple moor-grass and rush pasture and species-rich native hedgerow	County
Other neutral grassland and other native hedgerow	Local
Modified grassland, mixed scrub and ditch	Less than Local
Artificial unvegetated - unsealed surface and cropland	Negligible
Species	
Badger	Less than Local
Otter	Negligible
Water vole	N/A
Bats	County
Hazel dormouse	County
Breeding birds	Local
Wintering birds	Less than Local
Reptiles	Local
Amphibians	Less than Local
Invertebrates	Less than Local
Other SPIs	Less than Local
Invasive non-native species	N/A

4 Impact Assessment, Mitigation and Compensation

4.1 Overview

4.1.1 The following section considers the impacts and subsequent ecological effects of the Proposed Development during both construction and operation for the important ecological features identified in **Section 3**. Furthermore, this section also takes into account the impacts and ecological effects of the Proposed Development on ecological features which require consideration in order to enable legal compliance. Where impacts resulting in ecological effects are identified, appropriate avoidance and mitigation measures are described. Where significant residual effects remain after mitigation, the compensation measures required to ameliorate those effects are confirmed, along with the measures being proposed in order to deliver a net biodiversity benefit.

4.2 Avoidance, Embedded Mitigation and Compensation and Enhancement

Net Benefits for Biodiversity

4.2.1 With reference to the mitigation hierarchy and step-wise process, the scheme has been designed to avoid, minimise, mitigate, compensate and ecological impacts as far as possible and providing enhancements to provide a net benefit for biodiversity. The Green Infrastructure Statement (Stantec 2025) outlines how the Proposed Development will deliver a net benefit for biodiversity, in line with Planning Policy Wales and the Environment (Wales) Act 2016.

4.2.2 In summary, a siting study was conducted to identify the most suitable location, evaluating seven potential sites. The selected site was found to be the least environmentally damaging and most technically viable avoiding significant ecological constraints. Design measures included micro-siting to avoid sensitive habitats, including ancient woodland, a compact platform to reduce footprint, and a drainage strategy incorporating Sustainable Drainage Systems (SuDS) and wetlands to manage water and enhance biodiversity.

4.2.3 To compensate for habitat loss, the development will create and enhance native species-rich habitats. These include the creation of native scrub (3,2 ha), mixed woodland (0.5 ha), species-rich grassland (10.2 ha), hedgerows (1.6 km) and SuDS ponds and basins (0.2 ha) and swales (2.1 km) and the enhancement of up to 3.6 km of hedgerows. It is anticipated that additional measures including installation of reptile hibernacula, bat, dormouse, and bird boxes, and implementation of a sensitive lighting design will be incorporated into the Proposed Development. In addition to habitat enhancement the project aims to achieve a measurable net biodiversity benefit by improving habitat quality and connectivity, supporting protected species, through long-term management and monitoring outlined within a Landscape and Ecology Management Plan (LEMP).

Landscape and Ecology Management Plan

4.2.4 NGET will commit to the submission of a LEMP which will provide the strategy for the delivery of habitats and ecological mitigation and compensation features, within their control, that are designed to deliver mitigation compensation or enhancement, along with a description of the proposals for future management and monitoring of the Site. It is anticipated that the LEMP and its implementation will be secured by condition. The LEMP will set out the:

- maintenance and management proposals for the establishment phase (years 1-5 after implementation); and long term (years 5-25 after implementation);
- plans, specifications, schedules, and timescales;

- proposals for monitoring the effectiveness of the delivery of all landscape and ecological objectives (years 1-25 after implementation);
- timescales for monitoring reviews and reactive identification of any remedial operations, rectification of defects, or required changes to maintenance and management operations, and the mechanism for their implementation; and
- details of the management agent (body or organisation) responsible for implementation of the LEMP.

SuDS Strategy

4.2.5 The SuDS Strategy (Stantec 2025) for the proposed substation and access road uses National Grid standard design features including SuDS basins, wetlands, and swales to manage surface water runoff. It provides sufficient attenuation and long-term storage to handle runoff from impermeable surfaces during design rainfall events, accounting for climate change. This ensures minimal discharge, typically close to zero, and limits flow to the greenfield runoff rate for a 1 in 100-year event. The strategy also includes pollution control measures to clean surface water.

4.2.6 Two separate SuDS systems are proposed: one for the substation and one for the access road. The substation system uses a gravel platform for permeable storage, with runoff directed into swales and an ephemeral wetland. These swales also manage offsite runoff. The access road system includes a filter strip and swale directing runoff to two attenuation basins, which discharge at the greenfield Qbar rate into the existing highway drainage network. Hydraulic modelling confirms no increased flood risk.

4.2.7 Most runoff from the Proposed Development will be clean, such as roof water, although any pollutants will be filtered through gravel and swales with notch weirs, allowing sediment to settle before entering wetlands or ponds. The second basin, associated with access road, is designed to retain water most of the year, creating a valuable wetland habitat. Maintenance and pollution control measures follow CIRIA SuDS Manual guidance.

Further Plans and Strategies

4.2.8 Furthermore, a series of plans and strategies will be implemented during construction and operation which describe the key issues and the measures implemented to avoid and minimise impacts during that phase. These documents will be submitted with the planning application. It is anticipated that final versions of these plans and strategies, and their implementation, will be secured through appropriate planning mechanisms e.g. condition.

- Outline Construction Environmental Management Plan (CEMP) (Stantec, 2025)
- Landscape Mitigation Strategy (Stantec, 2025)
- Detailed Planting Plans (Stantec, 2025)

4.2.9 The majority of potential impacts would arise during the construction phase. The Outline CEMP will inform the production of the CEMP which will confirm measures to prevent significant negative impacts arising during the construction phase. These measures will include the following:

- Location of works compounds, access tracks and other construction activities away from sensitive habitats including hedgerows, ancient woodland and purple moor grass and rush pasture to minimise disturbance.
- Dust suppression measures to limit the impact on sensitive habitats.
- Pollution prevention measures with regards to pollutant or sediment run-off from the Site.

- Lighting strategies to avoid or reduce light spill on important ecological features.
- Mitigation and avoidance measure to be implemented to avoid disturbance to breeding birds.
- Mitigation measures to prevent mortality or injury of reptiles and other species of principal importance.
- Mitigation measures to prevent the potential; spread of invasive non-native species, if identified within the Site.
- Mitigation to be implemented to avoid injury to badgers and other wildlife present during the works. This would include exclusion measures of badgers and other vertebrate animals from excavations, and if access cannot be prevented, then provision of means for escape from open excavations would be provided.
- Exclusion areas and other protection to be used as appropriate around sensitive, protected or notable features including all vegetation to be retained, such as trees, woodland and retained sections of hedgerows; mitigation areas or features for wildlife and any temporarily required areas such as bird nesting sites.
- The requirement for any Natural Resources Wales licences (e.g. dormouse and badger) and associated working practices, including seasonal requirements of the mitigation implementation associated with the licence implementation would be set out, communicated to staff, implemented and reported. Including details for exclusion of badgers. As none of the setts identified as requiring closure are main setts; the creation of artificial setts would not be required.
- Measures to be included to maintain wildlife dispersal corridors across the Proposed Development, retention of habitat and retention of dark corridors along sensitive habitat.
- Confirmation of any mitigation strategies required to avoid/minimise noise and vibration impacts on PRFs.
- Schedule of pre-construction ecological surveys.
- Requirement of an Ecological Clerk of Works (ECoW) to be on site during the works, when required.

4.2.10 It is considered that accounting for the implementation of measures set out within the CEMP, significant construction impacts to important ecological features associated with dust deposition, air pollution, pollution incidents, water quality, light, noise, and vibration would be avoided.

4.3 Potential Impacts in the Absence of Mitigation and Compensation

Construction

4.3.1 The majority of potential impacts would arise during the construction phase. The impacts of the Proposed Development that have the potential to result in effects on important ecological features and/or legally protected species comprise:

- Habitat loss or gain: This relates to a change in land use as a result of the Proposed Development. Including vegetation clearance, change in use, habitat creation and enhancement, affecting habitats themselves and/or species' places of shelter or protection.
- Fragmentation (populations or habitats): Indirect impacts due to breaking up of a habitat, ecosystem, or land use type into smaller parcels, or the creation of partial or complete

barriers to the movement of species. Includes the loss of habitats to the Proposed Development such as hedgerows, which provide connectivity for species including hazel dormouse and bats.

- Disturbance: An indirect impact resulting from a change in normal conditions (light, noise, vibration, human activity) that would result in a species changing its typical behaviour. For example, construction lighting on a PRF may dissuade its use by roosting bats.

- Habitat degradation: A direct or indirect impact resulting in the reduction in the suitability of the habitat for the identified receptor (such as changes in water quality, air quality, habitat conditions), such as, pollution from water run-off from the Site.

- Species mortality or injury: A direct impact on an individual or population of a species associated with construction activities, for example the destruction of a badger sett while it is occupied by a badger.

Operation

4.3.2 The operational phase is when the Proposed Development becomes active; as such, all of the potential impacts are associated with the use the Proposed Development itself. The impacts during the operational phase that have the potential to result in effects on important ecological features and/or legally protected species comprise:

- Disturbance: An indirect impact resulting from a change in normal conditions that would result in the species changing its typical behaviour.

- Habitat degradation: An indirect impact resulting in reduction of the suitability of a habitat following construction for the identified ecological features. Generally associated with increased light, noise, vibration and chemical pollution associated with the operation of the Proposed Development such as security lighting.

4.4 Impact Assessment and Mitigation

4.4.1 The following sections will consider the potential impacts (outlined in **Section 4.3**), where relevant to the ecological features described in the sections below, along with mitigation measures relevant to that feature.

Designated Areas

4.4.2 Four internationally designated sites are located within 10 km of the Proposed Development, and two nationally designated sites are located within 2 km (**Section 3.2**).

4.4.3 Bae Caerfyrddin / Carmarthen Bay SPA, designated for its population of overwintering common scoter is located 9.7 km from the Proposed Development. Carmarthen Bay Dunes / Twyni Bae Caerfyrddin SAC, designated for its dune habitats and associated species is located 8.6 km from the Proposed Development. Coed Gwempa SSSI, designated for its woodland habitats, is located 1.4 km from the Proposed Development. Given the distance of these designated sites and the lack of potential source-receptor impact pathways from the Proposed Development, no direct or indirect impacts are anticipated on these designated sites.

4.4.4 Afon Tywi / River Tywi SAC, located 4.3 km north of the Site, upstream of hydrological connections to the Site and Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC and Afon Tywi SSSI, located 1.4 km from the Proposed Development and hydrologically connected via the highways drainage system, are all designated for their populations of migratory fish species and otter. Carmarthen Bay and Estuaries SAC and Afon Tywi SSSI are also designated for their habitats. Due to the hydrological connectivity to these designated sites and associated migratory species there is potential for the Proposed Development to

impact their designated features through indirect pollution via surface run-off from the Site during construction and operation.

4.4.5 Pollution via surface run-off will be avoided during construction via prevention measures described in the CEMP. The SuDs strategy (outlined in paragraphs 0 - 4.2.7) will avoid any pollution run-off from the Site during the operation of the Proposed Development. The inclusion of these measures would result in effects that are considered to be neutral and not significant.

4.4.6 These designated areas, and their constituent other designations (SSSI) are therefore scoped out of further consideration in this EcIA. A shadow Habitats Regulations Assessment screening, written in accordance with the Conservation of Habitats and Species Regulations, 2017 has also been undertaken in parallel with this EcIA to formalise the assessment that the Proposed Development will have no Likely Significant Effects on these Internationally designated areas (Stantec, 2025).

Habitats

4.4.7 The habitats within the Site have been assessed as being of regional to negligible importance.

Construction

4.4.8 The potential impacts associated with the construction phase would be:

- habitat loss and gain; and
- habitat degradation.

4.4.9 Habitat loss and gain: The construction phase of the Proposed Development would result in both permanent and temporary habitat losses and gains.

4.4.10 No permanent or temporary impacts to the ancient woodland, an irreplaceable habitat, located in the south of the Site will be permitted. In the unlikely event that cable restringing works are required over the ancient woodland, access to the southern area of the Site will be gained via an existing farm track that passes through the woodland. This track is approximately 10–15 m wide, and only vehicles of a similar size and weight to those currently using the track will be permitted. A 15-metre exclusion zone will be maintained around the ancient woodland in all other adjacent areas.

4.4.11 The Proposed Development is anticipated to result in the permanent loss of areas of purple moor-grass and rush pasture (2.9 ha), species-rich native hedgerows (2.1 km), other native hedgerows (0.6 km), other neutral grassland (10.4 ha) and modified grassland (8.6 ha). The loss of these habitats will be compensated for to provide a net benefit for biodiversity through the creation of the proposed habitats detailed within the Landscape Mitigation Strategy (Stantec 2025). Including the creation of:

- a band of species-rich native scrub to the south and south west of the substation, as well as an area to the south of the substation access road, totalling 3.2 ha;
- two areas of mixed woodland to the south west of the substation, totalling 0.5 ha;
- species-rich grassland surrounding the substation and either side of the access road, totalling 10.2 ha;
- SuDS pond and two SuDS basins planted with native aquatic and marginal species adjacent to the access road and to the west of the substation (0.2 ha) and swales around the perimeter of the substation and adjacent to the access track totalling 2.1 km; and

- species-rich native hedgerows adjacent to the access track and in sections surrounding the substation (1.6 km), as well as enhancement of existing hedgerows where possible (up to 3.6 km).

4.4.12 Habitat degradation: Temporary indirect impacts associated with dust deposition and pollution via run-off during the construction phase may occur. This impact would be mitigated for through the use of dust suppression and pollution prevention methods described in the CEMP

4.4.13 With the inclusion of the additional habitat creation and enhancement outlined above the Proposed Development is anticipated to result in effects that are considered to be not significant and is anticipated to result in a net benefit for biodiversity.

Operation

4.4.14 No direct impacts are anticipated on habitats during the operational phase of the Proposed Development. A potential indirect impact may be habitat degradation through pollution via surface run-off. This will be mitigated for through the SuDS Strategy which will filter any pollutants from the substation as detailed in paragraph **Error! Reference source not found.**.

4.4.15 In addition, measures that will be confirmed in the LEMP, will specify the appropriate management and monitoring of the habitats within the Site for a minimum of 25 years.

4.4.16 With this mitigation, impacts on habitats during the operational phase of the Proposed Development boundary are considered to be not significant.

Badger

4.4.17 The population of badgers within the Site has been assessed as being of less than local importance but is considered in this section due to the legal protection afforded to badgers and their setts (**Appendix B**).

Construction

4.4.18 The potential impacts of construction would be:

- habitat loss;
- habitat fragmentation;
- direct mortality; and
- disturbance.

4.4.19 Habitat loss and fragmentation: No main setts would be lost as part of the Proposed Development. A total of four outlier badger setts may be lost as part of the Proposed Development. As outlier setts are not a significant resource for a badger clan they don't require provision of a replacement sett but can only be closed under licence. Sett closures for setts confirmed to be in current use can only be completed July-October inclusive. Closure would involve securing 1-way gate(s) followed by minimum 21 day monitoring period prior to sett closure. All badger sett closures would be undertaken under a Natural Resources Wales (NRW) badger sett closure licence, which will be described in the CEMP. The Proposed Development would result in the fragmentation and loss of foraging habitat. The creation of scrub habitat to the south of the substation will provide valuable foraging habitat and provide east-west connectivity across the Site for badger.

4.4.20 Direct mortality and disturbance: Construction activities may result in the direct mortality of badgers or the indirect disturbance of badgers whilst occupying a sett. To avoid this situation working practices would be outlined in the badger licence and signposted in the CEMP,

including results of pre-construction checks of all construction area and restricting working practices around known setts to prevent injury to badgers during construction.

4.4.21 The inclusion of the mitigation outlined above would result in effects that are considered to be not significant given the less than local value of the badgers.

Operation

4.4.22 No impacts associated with the operational phase of the Proposed Development are anticipated.

Bats

4.4.23 The population of bats within the Site has been assessed as being of county importance.

Construction

4.4.24 The potential impacts of construction would be:

- habitat loss;
- habitat fragmentation;
- direct mortality; and
- disturbance.

4.4.25 Habitat loss: The Proposed Development is not anticipated to result in the loss of any confirmed bat roosts, although it will result in loss of one tree with suitability for multiple bats (PRF-M) and one tree with suitability for individual bats (PRF-I). The construction of the Proposed Development would also result in the permanent loss of foraging areas, including hedgerows (2.7 km), purple moor grass and rush (2.9 ha). Hedgerows will be retained within the construction site compounds with an appropriate buffer. Habitat creation within the Proposed Development boundary would provide semi natural habitats to directly replace any permanent loss of suitable habitats including species-rich native scrub (3.3 ha), mixed woodland (0.5 ha), species rich-grassland (10.2 ha), ponds/ SuDS basins (0.2 ha) and species-rich native hedgerow (1.6 km), as well as enhancement of existing hedgerows where possible (up to 3.6 km). In addition, it is anticipated that bat boxes will be installed on trees within the enhanced hedgerows in order to replace the small amount of suitable roosting features lost and to provide increased roosting opportunities for bats in the local area.

4.4.26 Habitat fragmentation: The Proposed Development would result in the partial east to west habitat fragmentation due to the loss of hedgerows. The band of scrub to the south of the substation would strengthen the east to west connectivity across the Site, reducing any habitat fragmentation impacts. In addition, the creation of hedgerows, scrub, woodland and swales across the Site will provide additional connectivity to the local landscape.

4.4.27 Direct mortality and disturbance: In accordance with current guidance (Collins, 2024; Reason and Wray 2023) update bat roost surveys will be undertaken on any trees classified as PRF-I or PRF-M, where those trees may be subject to direct loss or indirect disturbance. Immediately prior to felling (if the tree is to be lost) PRFs will be inspected at height by a NRW licenced bat ecologist.

4.4.28 Construction activities that generate elevated levels of noise, vibration or light can disturb roosting, foraging and commuting bats, particularly during sensitive periods such as hibernation and maternity seasons. To minimise disturbance, restrictions on night-time working will be implemented. Additionally, measures will be taken to prevent light spill onto identified roost features, key commuting routes and important foraging areas.

4.4.29 No site clearance or works activities that could impact a potential bat roost will be undertaken until a suitably qualified ecologist has confirmed the continued absence of roosting bats. If a bat roost is identified during pre-works surveys, all potentially impacting activities will only commence once a NRW licence has been obtained. These measures will be described within the CEMP.

4.4.30 The inclusion of the mitigation outlined above would result in effects that are considered to be not significant.

Operation

4.4.31 A potential impact of the operational phase of the Proposed Development would be disturbance from increased lighting associated with the substation. Although it is anticipated that all lighting will be positioned and adjusted so that it does not light sensitive habitats. Any lighting outside of working hours, will be reduced to a minimum commensurate with the need to maintain the site's security requirements and security lighting will utilise passive infra-red lighting. The lighting design should follow the bats and artificial light at night guidance (Bat Conservation Trust and Institution of Lighting Professionals, 2023) and will require use of a lighting designer in consultation with a bat ecologist. It is assumed that the operational lighting design will be secured by condition, taking account of this guidance and the site-specific survey results.

4.4.32 In addition, measures that will be confirmed in the LEMP, will specify the appropriate management and monitoring of the habitats within the Site for a minimum of 25 years.

4.4.33 The inclusion of the mitigation outlined above would result in effects that are considered to be not significant.

Hazel Dormouse

4.4.34 The population of hazel dormice within the Site has been assessed as being of county importance.

Construction

4.4.35 The potential impacts of construction would be:

- direct mortality;
- disturbance;
- habitat loss; and
- habitat fragmentation.

4.4.36 Direct mortality: The removal of 2.7 km of hedgerows has the potential to harm or kill dormice. Any works impacting dormouse habitat (hedgerows, woodland and scrub) will be undertaken under a NRW licence, which will confirm appropriate mitigation measures including the sensitive removal/ translocation of hedgerows, compensation planting and other compensation measures such as, dormouse box provision. The licence cannot be secured until planning consent has been granted. Mitigation measures confirmed within the licence will be signposted within the CEMP. The Outline CEMP describes measures to minimise mortality of dormice during construction including the sensitive displacement of dormouse from hedgerow proposed to be removed/ translocated for the Proposed Development. In autumn, single-stage clearance is proposed in which vegetation will be cleared in a direction which will displace dormice towards retained habitat. The removal of habitat will be phased so that a maximum of 150 m from each hedgerow will be removed in a day. A physical check by a suitability experienced ecologist to check for torpid dormice or dependent young immediately prior to clearance will be undertaken. No clearance of vegetation within 20-30m of a nest with dependent young will be undertaken.

4.4.37 Disturbance: Activities resulting in increased levels of noise, vibration or light during the construction period can disturb hazel dormouse. Working measures as described in the Outline CEMP and which will be detailed in the NRW licence , include restrictions on working at night and avoidance of light spill on habitats with suitability for dormouse, which would reduce any disturbance impacts as a result of construction activity to acceptable levels.

4.4.38 Habitat loss: The Proposed Development would result in the loss and fragmentation of 2.7 km of hedgerows considered suitable to support an estimated 14 breeding dormice (Wells *et al.* 2025). Habitat creation within the Proposed Development boundary including, species-rich native hedgerows (1.6 km), scrub (3.2 ha) and woodland planting (0.5 ha) would provide an overall net gain of habitat, with ability to support an estimated 31.5 breeding dormice, to directly replace any permanent loss. In addition, it is anticipated that where possible hedgerows will be translocated and existing hedgerows will to be enhanced (up to 3.6 km) to increase their suitability for dormouse and it anticipated that dormouse nest boxes would also be installed in areas of retained hedgerows at a spacing of 20-50 m providing replacement hibernation opportunities for dormice whilst plantings are maturing. Additional planting would include a minimum of six suitable species known to support dormouse, such as, hazel and honeysuckle.

4.4.39 Habitat fragmentation: The Proposed Development would result in the fragmentation of hedgerows considered suitable for hazel dormouse. The band of scrub to the south of the substation would strengthen the east to west connectivity across the Site, reducing any habitat fragmentation impacts. In addition, the creation of hedgerows, scrub and woodland and will provide additional connectivity to the local landscape.

4.4.40 The inclusion of the mitigation outlined above would result in effects that are considered to be not significant.

Operation

4.4.41 A potential impact of the operational phase of the Proposed Development would be disturbance from increased lighting associated with the substation on hedgerows and scrub with suitability for dormouse. Although, it is anticipated that all lighting will be positioned and adjusted so that it does not light sensitive habitats. Any lighting outside of working hours, will be reduced to a minimum commensurate with the need to maintain the site's security requirements and security lighting will utilise passive infra-red lighting. As outlined in paragraph 4.4.31, the lighting will require use of a lighting designer in consultation with an ecologist. It is assumed that the operational lighting design will be secured by condition, taking account of this guidance and the site-specific survey results.

4.4.42 In addition, measures that will be confirmed in the LEMP, which will be secured by condition, will specify the appropriate management and monitoring of the habitats within the Site for a minimum of 25 years.

4.4.43 The inclusion of the mitigation outlined above would result in effects that are considered to be not significant.

Breeding and Wintering Birds

4.4.44 The assemblage of breeding and wintering birds within the Site has been assessed as being of local to less than local importance.

Construction

4.4.45 The potential impacts of construction would be:

- habitat loss; and
- direct mortality.

4.4.46 Habitat loss: The Site is likely to support a variety of farmland birds. The permanent and temporary loss of suitable foraging and nesting habitat such as hedgerows (2.7 km) and grassland (21.9 ha) may displace these bird species from their territories and reduce the availability of food sources. It is unlikely that the temporary loss of foraging and nesting habitat would impact the local bird assemblage due to the large expanse of suitable habitat in the area. Where suitable nesting and foraging habitat is permanently lost habitat including hedgerows (1.6 km), scrub (3.2 ha) and woodland (0.5 ha) would be created within the Proposed Development to ensure that there is an overall net gain of semi natural habitat. Trees and shrubs in these plantings would contain a wide variety of locally occurring native flowering trees and shrubs which would provide sources of fruit and seeds throughout the growing season. In addition, nest boxes would be installed in appropriate locations in order to provide suitable nesting habitat while the newly created habitat is maturing.

4.4.47 Direct mortality: Vegetation clearance activities during the construction phase undertaken during the nesting bird season (March September) may result in the damage and destruction of active birds' nests including the harm to the unfledged young. This will be avoided through the mitigation measures described in the Outline CEMP, which restricts vegetation clearance activities to outside of the breeding bird season, where practicable, or requires the protection of birds and nests throughout the construction period. The inclusion of the mitigation outlined above would result in effects that are considered to be not significant.

Operation

4.4.48 No direct or indirect impacts are anticipated during the operational phase of the Proposed Development.

Reptiles

4.4.49 The assemblage of reptiles within the Site has been assessed as being of less than local importance.

Construction

4.4.50 The potential impacts of construction would be:

- habitat loss; and
- direct mortality.

4.4.51 Direct mortality: Vegetation clearance of 2.9 ha of purple moor-grass and rush pasture during construction works has the potential to harm or kill reptiles. Where vegetation clearance is undertaken in areas of suitable reptile habitat the avoidance and mitigation measures set out in the Outline CEMP would be followed. This includes pre-construction habitat management through strimming of vegetation at staged intervals to encourage reptiles to move into nearby suitable habitat. Translocation of reptiles is not considered appropriate given the relatively limited extent of habitat with suitability for reptiles within the Site and the suitability of retained habitat within and adjacent to the Site.

4.4.52 Phased vegetation clearance of areas of purple moor grass and rush pasture will be completed between April and October, outside of the reptile hibernation period. This work will be overseen by a suitably experienced ecologist, and will include the following measures:

- Cut vegetation down to 150mm (i.e. brush-cutting and strimming) to avoid harm to reptiles which may be present at ground level. Rake off the arisings and remove from works footprint. Leave the cleared area undisturbed for at least 24 hours of dry weather.
- If a significant density of vegetation remains (i.e. that there is sufficient vegetation below 150mm in which reptiles may rest) cut vegetation to ground level. Rake off the arisings and remove from works footprint. Leave the cleared area undisturbed for at least 24 hours of dry weather.

- Remove potential reptile refuges (as described below) from the footprint of the works, by hand or using a small excavator.

- If woody vegetation requires chipping, then this material should be undertaken off-site to ensure all arisings are outside of the works footprint.

- The vegetation in cleared areas must be kept short until the works have finished. This will ensure that reptiles are discouraged from returning into the works areas.

4.4.53 When removing potential reptile sheltering habitat the following measures will be implemented:

- A destructive search will be undertaken to carefully dismantle each feature under the supervision of a suitably experienced ecologist.

- Sheltering features will be removed from the works footprint or, if possible, they may be placed in suitable reptile habitat which will remain unaffected close to the working area. The ecologist will advise how sheltering features must be disposed of and suitable areas for reinstatement of reptile refuges/ hibernacula.

- Destructive searches will be undertaken prior to the reptile hibernating season which is temperature dependent but generally ranges from October to February inclusive. Actual dates will be influenced by climatic conditions. No dismantling of suitable hibernation features will be undertaken during the hibernation period.

4.4.54 Habitat loss: The Proposed Development would result in the loss of semi natural habitats considered suitable to support reptiles, particularly areas of purple moor grass and rush pasture and hedgerows. Habitat creation within the Proposed Development boundary including scrub, species rich grassland and south facing banks, would replace the loss or fragmentation of habitats. In addition, the anticipated creation of at least two log piles and one hibernacula within these habitats would enhance the suitability of these habitats for reptiles.

4.4.55 The inclusion of the mitigation outlined above would result in effects that are considered to be not significant.

Operation

4.4.56 No direct or indirect impacts are anticipated during the operational phase of the Proposed Development.

Invertebrates

4.4.1 The assemblage of invertebrates within the Site has been assessed as being of less than local importance.

4.4.2 Loss of habitats with suitability for invertebrates associated with the construction of the Proposed Development is anticipated. Although habitat creation within the Proposed Development would provide similar or better habitats, to directly replace any permanent loss of habitat. Habitat creation would include wetlands and species rich grassland. The SuDS features will be naturally shaped, providing a greater variety of habitat features, thus increasing their suitability for a wider range of invertebrate species.

4.4.3 The inclusion of the mitigation outlined above would result in effects that are considered to be not significant.

Other Species of Principal Importance

4.4.4 Other SPIs potentially present within the Site including hedgehog, polecat, brown hare and harvest mouse have been assessed as being of less than local importance.

4.4.5 Vegetation clearance during construction works has the potential to harm or kill hedgehog, polecat, brown hare and harvest mouse, if present. Where vegetation clearance is undertaken in areas of suitable habitat the avoidance and mitigation measures set out in the Outline CEMP, in relation to other species e.g. reptiles (as described in paragraph 4.4.51), would avoid impacts on these species. This includes pre-construction checks and habitat management through strimming of vegetation at staged intervals to encourage species to move into nearby suitable habitat.

4.4.6 The inclusion of the mitigation outlined above would result in effects that are considered to be not significant.

Invasive non-native species.

4.4.7 There have been no INNS recorded within the Site, although, Japanese rose is known to occur in the surrounding area. These species can be spread unintentionally and could cause damage to habitats within the Site if introduced. Mitigation measures to prevent the potential; spread of invasive non-native species, if identified within the Site, is described in the Outline CEMP.

4.4.8 The inclusion of the mitigation outlined above would result in effects that are considered to be neutral and not significant.

4.5 Residual Impact Assessment

4.5.1 Subject to the mitigation measures described above being implemented, these measures address many of the impacts, such that no significant residual adverse effects are anticipated and a net benefit for biodiversity is delivered.

4.6 Summary of Mitigation and Enhancement Measures

4.6.1 Table 4-1 provides a summary of the potential impacts associated with the Proposed Development with the proposed design, mitigation and enhancement measures and resulting significance of effect.

Table 4-1 Summary of Effects for Construction and Operation

Ecological Receptor	Importance	Potential Impact(s) from the Proposed Development	Construction/ Operation	Summary of Mitigation, Compensation and Enhancement Measures	Significance of Effect
Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC	International	Pollution via surface water run-off	Construction and Operation	Mitigation measures detailed in the CEMP and SuDS Strategy	Not Significant
Afon Tywi / River Tywi SAC	International				
Carmarthen Bay Dunes / Twyni Bae Caerfyrddin SAC	International	No anticipated direct or indirect effects	N/A	No mitigation required	Not Significant
Bae Caerfyrddin / Carmarthen Bay SPA	International				
Coed Gwempa SSSI	National				

Ecological Receptor	Importance	Potential Impact(s) from the Proposed Development	Construction/ Operation	Summary of Mitigation, Compensation and Enhancement Measures	Significance of Effect
Afon Tywi SSSI	National	Pollution via run-off	Construction and Operation	Mitigation measures detailed in the CEMP and SuDS Strategy	Not Significant
Habitats	Regional - Negligible	Habitat loss and gain and habitat degradation	Construction	Habitat creation and mitigation measures detailed in the CEMP	Not Significant
		Habitat degradation	Operation	SuDS Strategy and habitat management and monitoring detailed in the LEMP	Not Significant
Badger	Less than Local	Habitat loss, direct mortality, disturbance and habitat fragmentation	Construction	Habitat creation and mitigation measures detailed in the badger licence and the CEMP	Not Significant
Bats	County	Habitat loss, habitat fragmentation, direct mortality and disturbance	Construction	Habitat creation and mitigation measures detailed in the CEMP and bat licence, if required	Not Significant
		Disturbance	Operation	Sensitive lighting strategy and habitat management and monitoring detailed in the LEMP	Not Significant
Hazel dormouse	County	Habitat loss, direct mortality, disturbance; and habitat fragmentation	Construction	Habitat creation and mitigation measures detailed in the hazel dormouse licence and the CEMP	Not Significant
		Disturbance	Operation	Sensitive lighting strategy and habitat management and monitoring detailed in the LEMP	Not Significant
Breeding and wintering birds	Local -Less than Local	Habitat loss and direct mortality	Construction	Habitat creation and mitigation measures detailed in the CEMP	Not Significant
Reptiles	Less than Local	Habitat loss and direct mortality	Construction	Habitat creation and mitigation measures detailed in the CEMP	Not Significant
Invertebrates	Less than Local	Habitat loss	Construction	Habitat creation	Not Significant
Other SPIs	Less than Local	Direct mortality	Construction	Mitigation measures detailed in the CEMP	Not Significant
Invasive non-native species	N/A	Spread of INNS	Construction	Mitigation measures detailed in the CEMP	Not Significant

5 Conclusion

5.1.1 This EcIA has evaluated the potential ecological effects of the proposed Llandyfaelog Substation, considering both construction and operational phases. The assessment has been informed by comprehensive desk studies, field surveys, stakeholder consultation, and supporting technical documentation, with reference to current best practice guidance (CIEEM, 2024).

5.1.2 The Site supports a range of ecological features of importance at the less than local, local, county and regional levels, including ancient woodland, HPIs and protected and notable species.

5.1.3 The Proposed Development will result in unavoidable direct impacts, including the loss of the HPI purple moor-grass and rush pasture and native hedgerows and habitats confirmed to support a range of protected and notable species including hazel dormouse.

5.1.4 The Proposed Development has been subject to a stepwise design process to avoid and minimise ecological impacts wherever possible. Embedded mitigation measures have been incorporated to reduce indirect effects. A comprehensive suite of mitigation and enhancement measures will be delivered through the Proposed Development, including:

- Mitigation measures outlined within protected species licences obtained from NRW for hazel dormouse, badger and bats, where required.
- Mitigation measures outlined within a CEMP.
- Creation of native species rich habitats including scrub (3.2 ha), mixed woodland (0.5 ha), grassland (10.2 ha), ponds and SuDS basins (0.2 ha), swales (2.1 km) and hedgerows (1.6 km), as well as enhancement of existing hedgerows (3.6 km) where possible.
- Strengthening of ecological connectivity across the Site through the creation of bands of scrub, woodland and hedgerow.
- Creation of species-specific features including reptile hibernacula, bat, bird and hazel dormouse boxes.
- Long-term monitoring and adaptive management secured through the Landscape and Ecology Management Plan.

5.1.5 Subject to the implementation of these measures, no significant effects are anticipated. The Proposed Development is expected to deliver a Net Biodiversity Benefit and deliver ecosystem resilience, aligned with the DECCA framework, in accordance with Planning Policy Wales (Edition 12) and the Environment (Wales) Act 2016.

5.1.6 In conclusion, the Proposed Development is considered ecologically acceptable, with appropriate safeguards and enhancements in place to enable compliance with relevant legislation and policy, and to support the long-term conservation of biodiversity within Carmarthenshire. It is expected that the detailed design elements and the suite of mitigation and enhancement measures described in this EcIA will be secured by appropriate planning mechanisms including conditions as appropriate.

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Appendix A Figures

Figure 1: Site Location Plan

Figure 2: Internationally Designated Sites

Figure 3: Nationally and Locally Designated Sites

Figure 4: Ancient Woodland and Habitats of Principal Importance

Figure 5: UK Habitat Classification Survey Plan

Appendix B Summary of Relevant Legislation and Policy

B.1 Legislation

The Conservation of Habitats and Species Regulations 2017 (as amended) – European Protected Species

B.1.1 The Conservation of Habitats and Species Regulations transpose the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora ("The Habitats Directive") into law.

B.1.2 The 2017 Regulations consolidate the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The regulations provide for:

- designation and protection of European Sites (Special Protection Areas (SPA) and Special Areas of Conservation (SAC)) including the need for 'Appropriate Assessment' of plans and proposals;
- protection of European protected species;
- adaptation of planning and other controls for the protection of European Sites; and
- make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2.

B.1.3 No actions that will impact upon a European protected species or its habitat can be undertaken unless authorised by a European Protected Species licence issued by Natural Resources Wales. Such a licence is granted until after planning consent has been granted once Natural Resources Wales are satisfied that adequate measures are to be put in place to mitigate for the impact of the development.

The Conservation of Habitats and Species Regulations 2017 – Wild Bird Habitats

B.1.4 The Conservation of Habitats and Species Regulations 2017 (as amended) places duties on competent authorities (including Local Authorities and National Park Authorities) in relation to wild bird habitat. These provisions relate back to Articles 1, 2 and 3 of the EC Directive on the conservation of wild birds (2009/147/EC, 'Birds Directive'36) (Regulation 10 (3)) whose objective is the 'preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat, as appropriate, having regard to the requirements of Article 2 of the new Wild Birds Directive…' Regulation 10 (7) states: 'In considering which measures may be appropriate for the purpose of security or contributing to the objective in [Regulation 10 (3)] Paragraph 3, appropriate account must be taken of economic and recreational requirements'.

B.1.5 In relation to the duties placed on competent authorities under the 2017 Regulations, Regulation 10 (8) states: 'So far as lies within their powers, a competent authority in exercising any function [including in relation to town and country planning] in or in relation to the United Kingdom must use all reasonable endeavours to avoid any pollution or deterioration of habitats of wild birds (except habitats beyond the outer limits of the area to which the new Wild Birds Directive applies).'

Wildlife and Countryside Act 1981 (as amended)

B.1.6 The Wildlife and Countryside Act 1981 (as amended) (WCA) implements the Convention of European Wildlife and Natural Habitats (The Bern Convention) and the Directive 2009/147/EC 'The Birds Directive'.

B.1.7 The 1981 WCA has been amended by the Countryside and Rights of Way (CROW) Act 2000.

B.1.8 Schedules 1 (birds) and 5 (animals) of the WCA identify species of bird and other animal in relation to which the WCA makes killing, injury, taking and disturbance an offence while Schedule 8 to the Act lists species of plant in relation to which the Act makes it an offence to intentionally pick, uproot or destroy.

B.1.9 Section 14(2) of the Act makes it an offence to cause any species of animal or plant listed in Schedule 9 of the Act to grow in the wild. Of these species, those encountered frequently in land development and regeneration projects include Japanese knotweed, giant hogweed, floating pennywort

B.1.10 The Act further provides for notification and confirmation of Sites of Special Scientific Interest (SSSI) for their flora, fauna, geological or physiographical features. It also contains measures for the protection and management of SSSIs. The Countryside and Rights of Wat Act 2000.

Environment (Wales) Act 2016

B.1.11 As part of Welsh Government's commitment to reversing the decline in biodiversity in Wales and increasing the resilience of its ecosystems, the Environment (Wales) Act introduces a new biodiversity duty, which highlights biodiversity as an essential component of ecosystem resilience.

B.1.12 Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'. The duty replaces the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty.

B.1.13 Section 7 replaces the duty in Section 42 of the NERC Act 2006. The Welsh Ministers will publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales. In producing the list or taking any measures to improve the listed organisms and habitats, the Welsh Ministers must apply the principles of sustainable management of natural resources. Therefore, they must consider any appropriate evidence, for example as provided in the State of Natural Resources Report, and also engage with any relevant stakeholders, including pertinent public authorities. Certain public authorities will also be required to consider the section 7 list, in complying with the new biodiversity duty under section 6 of the Act. The list is important in assisting public bodies to identify potential issues that they may wish to address in meeting their well-being objectives, in addition to contributing to the well-being goal 'a resilient Wales' (Goal 2).

Protection of Badgers Act 1992

B.1.14 The Protection of Badgers Act 1992 protects badgers from persecution rather than being a response to unfavourable conservation status. The Act makes it an offence to:

- willfully kill, injure, take, possess or cruelly ill-treat a badger; or attempt to do so; or
- to intentionally or recklessly interfere with a sett.

B.1.15 Badgers and their setts are frequently encountered in both urban and rural areas and as such land development and regeneration projects have the potential to affect badgers and/or their

setts. If an offence is likely to result an effective mitigation plan much be agreed with Natural England and authorised by licence before work proceeds.

Wild Mammals Protection Act, 1996 (as amended)

B.1.16 Under the Wild Mammals (Protection) Act 1996 it is an offence to cause unnecessary suffering to wild mammals, including crushing and asphyxiating. This Act is primarily concerned with animal welfare and aims to prevent cruelty. As a result, offences include those actions with the intent to inflict unnecessary suffering. A wild mammal includes any mammal which is not domestic or captive. Red foxes, wild deer and other mammals such as rabbits are therefore covered by the Act.

The Invasive Alien Species (Enforcement and Permitting) Order 2019 (IASO)

B.1.17 The IASO transposes the EU Invasive Alien Species (IAS) Regulation (1143/2014) into UK law. The IASO makes it an offence to plant or otherwise cause to grow in the wild any specimen which is of a species of plant which is included in Part 2 of Schedule 2.

B.2 Policy

Planning Policy Wales (2024)

B.2.1 Planning Policy Wales sets out local and national policies regarding development, the latest 12th edition being published in February 2024. The statement sets the priorities and expectations for planning authorities to consider with development proposals, which includes consideration of the environment, landscapes and biodiversity so that “a Resilient Wales can be supported by protecting and providing sufficient scale, extent, diversity and connectivity within, and between, landscapes and habitats to maintain and enhance biodiversity and the resilience of ecosystems.”

B.2.2 The mission statement above should be achieved by considering the following fully according to the policy statement:

- “Development plan strategies, policies and development proposals should be formulated to look to the long term protection and enhancement of the special characteristics and intrinsic qualities of places, be these of natural, historic or built environments, ensuring their longevity in the face of change. This means both protecting and enhancing landscapes, habitats, biodiversity, geodiversity and the historic environment in their own right as well as other components of the natural world, such as water resources or air quality.”

- “Problems should be prevented from occurring or getting worse. Biodiversity loss should be reversed, pollution reduced, environmental risks addressed and the overall resilience of ecosystems improved.”

- “When appropriate development is proposed, it must be taken forward in an integrated way, woven into its place/context alongside nature to ensure common issues are considered and accommodated in the early stages of plan making or individual proposal and multiple benefits, such as green infrastructure are secured.”

- “Proposals should work creatively with nature and should demonstrate how decisions on design, siting, scale density and other key considerations have been informed by biodiversity and ecosystem resilience considerations.”

B.2.3 In conjunction with the Environment (Wales) Act (2016), local authorities have a duty under Section 6 of that legislation to develop, enhance and link green infrastructure, avoiding loss, degradation and fragmentation of these habitats. Development plans should therefore provide a net benefit for biodiversity, working alongside and in conjunction with local ecosystems, and not causing any significant loss of habitat or species’ populations. In a step-wise approach to

evaluate biodiversity enhancement set out in the policy, the onus is on the developer to bring forward a way which will achieve net benefit for biodiversity, demonstrating the enhancement of local green infrastructure.

B.2.4 The step-wise approach to be considered with each development involves an initial Green Infrastructure Assessment to gauge the local baseline ecological assets and networks. A variety of data sources can be used to inform this including The State of Natural Resources Report (SoNaRR) by NRW, Area Statements, Local Nature Plans and Biodiversity Action Plans.

B.2.5 From the evidence provided in the Green Infrastructure Assessment, the planning authority is to sequentially consider the following in relation to the development proposal, the local environment and net benefit for biodiversity:

- Avoid any loss of biodiversity in any sense and enhance local ecological functions resulting in a net benefit for biodiversity. This could be achieved through identifying an alternative site for development.

- Minimise any loss of biodiversity from development and enhance local ecological functions resulting in a net benefit for biodiversity. After exhausting options to relocate or redesign the development, any subsequent ecological impact should be minimised by maintaining natural habitats on site, ensuring these habitats are well connected to adjacent habitats, retaining existing natural features with a management plan to avoid damage during construction, and even use innovative solutions to maintain any existing ecological functions.

- Mitigate any loss of biodiversity from development and enhance ecological functions within the designated mitigation area resulting in a net benefit for biodiversity. Where efforts to minimise, ecological damage will still result in overall damage from development, finding and designating an area for natural habitat creation or restoration on site in a like-for-like basis will be considered. Overall connectivity to local habitats still needs to be demonstrated and a management plan for natural habitat creation or restoration, including details of financing, should be submitted. If there is no suitable mitigation area on the proposed site, off-site mitigation can be considered with submission of a full ecological statement including ecological baseline of the off-site mitigation area, habitat creation or enhancement plan, financing and ability to demonstrate the perpetuity of the restored ecosystem.

B.2.6 Statutory designated sites are, by principle, not to be developed. They are central to ecological networks within local landscapes. There is potential for development proposals to partly mimic, provide connectivity to and compliment these sites providing the required Section 6 duty to provide a net benefit for biodiversity.

B.2.7 Initial Green Infrastructure Assessments, calculation of baseline ecological value, identification of avoidance, minimisation or mitigation measures in relation to ecological damage, and opportunities for green infrastructure enhancement resulting in a net benefit for biodiversity from development can be provided in a Biodiversity Net Gain (BNG) Assessment.

Technical Advice Note 5: Nature Conservation and Planning (TAN 5)

B.2.8 This Technical Advice Note (TAN) provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. This guidance note supplements Planning Policy Wales, in particular Chapter 6 Distinctive Natural Places (as outlined above).

B.2.9 This TAN brings together advice on sources of legislation relevant to various nature conservation topics which may be encountered by local planning authorities. Chapter 2 sets out the key principles of planning for nature conservation. Chapter 3 provides advice about the preparation and review of development plans, including the relevant statutory requirements. Chapter4 addresses nature conservation in development control procedures. Chapter 5 deals

with the conservation of internationally and nationally designated sites and habitats and also covers local sites. Chapter 6 deals with the conservation of protected and priority species. The Annexes form part of this TAN and provide more detailed information and guidance on a range of issues.

Carmarthenshire County Council Local Development Plan 2006 - 2021

B.2.10 Relevant local planning policies included in the Carmarthenshire County Council Local Development Plan are provided below.

Policy EQ4 Biodiversity

B.2.11 Proposals for development which have an adverse impact on priority species, habitats and features of recognised principal importance to the conservation of biodiversity and nature conservation, (namely those protected by Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006 and UK and Local BAP habitats and species and other than sites and species protected under European or UK legislation) will not be permitted, except where it can be demonstrated that:

- The impacts can be satisfactorily mitigated, acceptably minimised or appropriately managed to include net enhancements;
- There are exceptional circumstances where the reasons for the development or land use change clearly outweighs the need to safeguard the biodiversity and nature conservation interests of the site and where alternative habitat provision can be made in order to maintain and enhance local biodiversity.

Policy EQ5 Corridors, Networks and Features of Distinctiveness

B.2.12 Proposals for development which would not adversely affect those features which contribute local distinctiveness/qualities of the County, and to the management and/or development of ecological networks (wildlife corridor networks), accessible green corridors and their continuity and integrity will be permitted.

B.2.13 Proposals which include provision for the retention and appropriate management of such features will be supported (provided they conform to the policies and proposals of this Plan).