



Ecological Appraisal Report:

Ecological Appraisal Report: Land at Former Cardigan Memorial Hospital Pontycleifion Cardigan

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Summary

I & G Ecological Consulting Ltd were commissioned to undertake an updated Preliminary Ecological Appraisal of an area of land, being the grounds of the former hospital. The hospital is on the outskirts of Cardigan town centre, adjacent to the River Teifi. The land within the site boundary consists predominantly of disturbed and made ground, semi-improved amenity grassland, shelterbelt/screening and scattered trees. There is also a retained area of rank grassland and with a small area of standing water supporting emergent and marginal vegetation. The site within the red-line boundary is approximately 1.2 hectares in size. No signs of European protected species were observed, however invasive non- native plant species were encountered on the site.

The proposed development consists of Social Housing development and community spaces with associated parking and infrastructure.

An updated desk study was undertaken in August 2023, with the purpose of determining any existing ecological information pertaining to the proposed management site, as well as surrounding habitats. A Phase 1 Habitat Survey was undertaken in October 2023, with the aim of identifying the habitats present on site and relating them to any relevant legislation.

This report presents the findings of both a desk study and a site appraisal undertaken in October 2023. The report aims to identify any ecological constraints present in relation to the proposed development, such as the presence of protected species and habitats, whilst providing recommendations for further surveys and mitigation measures where required.

1. INTRODUCTION

1.1 Background

I & G Ecological Consulting Ltd were commissioned to undertake an updated Preliminary Ecological Appraisal (PEA) of an area of land, being the grounds of the former Cardigan Memorial Hospital, in order to determine the ecological baseline of the site, as well as to identify any ecological constraints, necessary for informing the design of an ongoing planning application.

A PEA was undertaken in 2019 and amended in 2020. Since then, the hospital has been decommissioned and the more modern of the buildings removed, leaving the original building standing. An archaeological dig is currently underway on the site of the former buildings.

This report presents the findings of both a desk study and a site appraisal undertaken in October 2023. The report aims to identify any ecological constraints present in relation to the proposed development, such as the presence of protected species and habitats, whilst providing recommendations for further surveys and mitigation measures where required.

1.2 Site Details

The hospital is on the outskirts of Cardigan town centre, adjacent to the River Teifi. The land within the site boundary consists predominantly of disturbed and made ground, semi-improved amenity grassland, scattered trees, and plantation trees on a bank screening the main road. There is also a small area of retained rank grassland with a small pond supporting emergent and marginal vegetation. The site within the red-line boundary is approximately 1.2 hectares in size and includes part of the former hospital buildings. No signs of European protected species were observed, however invasive non-native plant species were encountered on the site.

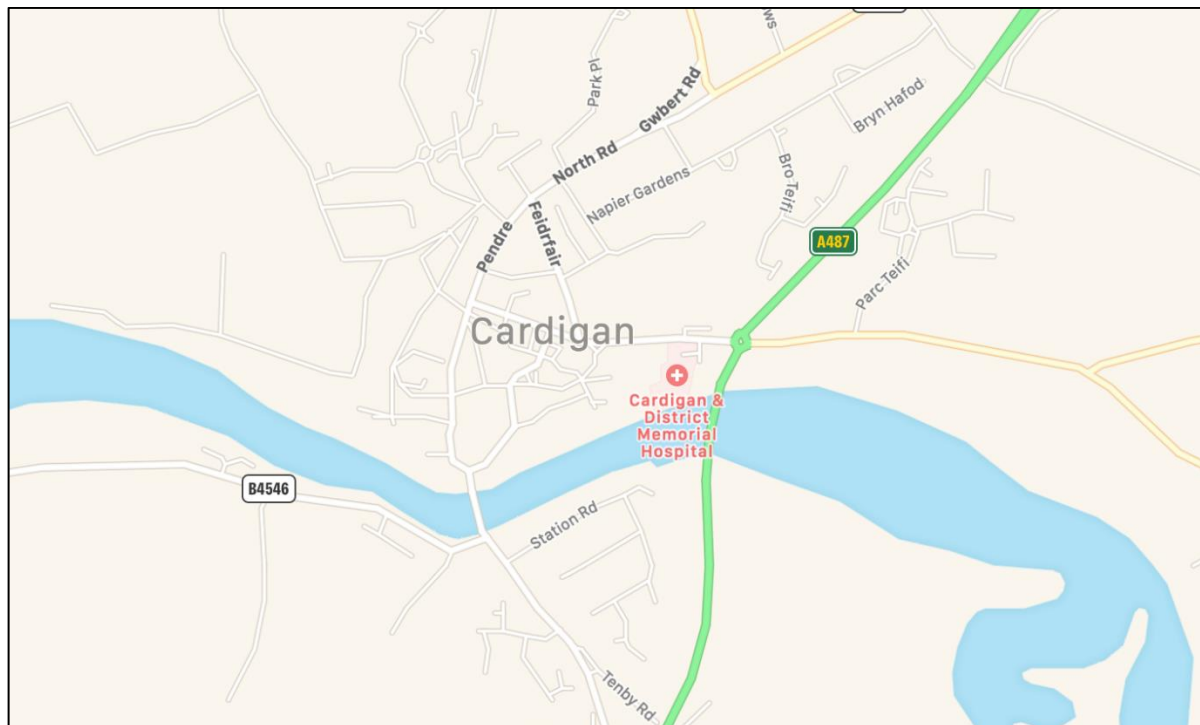


Figure 1: Location Map (from Bing Maps) SN18134603

1.3 Proposed Development

The proposed development consists of a number of Social Housing units, together with parking areas, a café and landscaping. Please refer to accompanying design drawings at Appendix (Alternative Scheme Proposals, Gaunt Frances dated 20/07/2023).

1.4 Relevant Planning Policy and Legislation

1.4.1 The Environment Wales Act (EWA) Section 6 (Welsh Government, 2016) places a duty on public authorities to 'seek to maintain and enhance biodiversity' and 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. Section 7 lists both Priority Species and

Habitats of Principle Importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.

1.4.2 Furthermore, Edition 11 of Planning Policy Wales (PPW) (Welsh Government, 2021) establishes the land use planning policy for Wales, as set forth by the Welsh Government. It provides a structure for the effective formulation of Local Planning Authorities' development plans, supported by twenty-one Technical Advice Notes (TANs) organized around different topics. Specifically, TAN 5 - Nature Conservation and Planning gives guidance on how the land use planning system should support the safeguarding and enhancement of biodiversity and geological conservation.

PPW 11 aims to maintain and establish areas where:

- The role of landscapes, historic environments, habitats, biodiversity, and the unique characteristics of coastal, rural, or urban environments in contributing to natural and distinctive places are recognised, appreciated, protected, and improved.
- Further fragmentation of habitats is avoided wherever possible, and green networks, corridors, and habitat connections within developed areas are protected and improved.
- The features and characteristics of sites designated for their landscape or nature conservation significance are fully evaluated and safeguarded, while the network of sites is acknowledged as the foundation for improving the resilience of ecosystems.
- The opportunity to enhance the resilience of ecosystems is seized in all areas by addressing issues such as building on floodplains, diffuse pollution, soil compaction and sealing, ensuring the protection of peat resources, and improving coastal flood defense strategies in urban areas and coastal margins.

Paragraph 3.36 of PPW outlines the utilization of the Sustainable Management of Natural Resources (SMNR) methodology by the planning system, with the following identified as its primary components:

- Improving the resilience of ecosystems and ecological networks
- Halting and reserving the loss of biodiversity
- Maintaining and enhancing green infrastructure based on seeking multiple ecosystem benefits.

2. METHODOLOGY

2.1 Desk Study

A desk study was conducted with the purpose of determining any existing ecological information pertaining to the proposed development site, as well as surrounding habitats. A biological data request was sent to Local Environmental Records Centre (LERC) Wales via Aderyn (available at: <https://aderyn.lercwales.org.uk/>) and returned on the 31st October 2023 (LERC Unique Reference: PEACARDIGANHOSP2023), in order to obtain records of protected species within a 2km radius of the site, as well as designated sites for nature

conservation. Additional species record data were obtained via the National Biodiversity Network (NBN) Atlas (available at: <https://nbnatlas.org/>) where possible. The Multi-Agency Geographical Information for the Countryside (MAGIC) website was also used to pull data on waterbodies within 0.25km of the site, following the guidance listed in the Great Crested Newt Conservation Handbook (Langton *et al.*, 2001).

2.2 Field Survey

2.2.1 Phase One Habitat Survey

A Phase One Habitat Survey was conducted by a suitably qualified ecologist at 11:00 on 28th October 2023, using the methodology outlined in the Handbook for Phase 1 habitat survey (JNCC, 2010). Additionally, the habitats present on site were assessed for their potential to support protected species, with visual surveys used to search for physical sightings, or incidental records of such species. The site boundary is included in Figure 2 below.

Target incidental may relate to the following:

- Evidence of badger – setts, well-worn paths and runs, snagged hair, latrines, sites and foraging.
- Evidence of otter - spraint marking, slides, hovers or sites.
- Evidence of dormouse – nests or foraged hazel nuts with characteristic round gnawing holes.
- Evidence of birds – nests.
- Evidence of bats – bat droppings or urine staining adjacent to a Potential Roost Feature (PRF).
- Evidence of reptile – sloughs.
- Evidence of amphibians – spawn.
- Evidence of water vole – droppings, latrines, foraging signs and footprints.
- Suitable habitat for marsh fritillary butterfly – the presence of Devil’s bit scabious (*Succisa pratensis*), the marsh fritillary’s food plant.

Any pernicious weeds under Schedule 9, Section 14 of the Wildlife and Countryside Act 1981 (as amended) were also noted and mapped during the site survey. These species include Japanese Knotweed (*Fallopia japonica*) and Himalayan Balsam (*Impatiens glandulifera*).

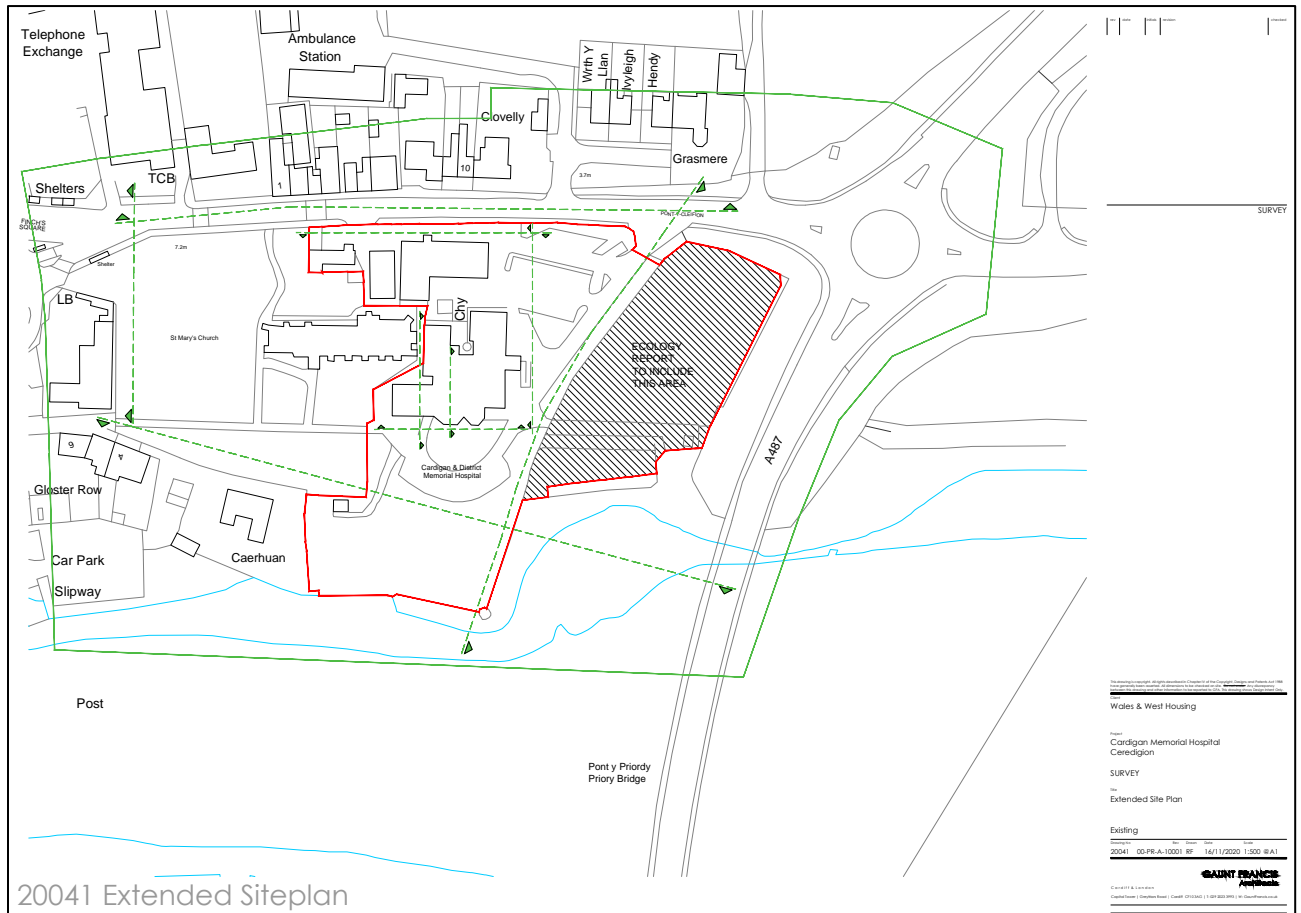


Figure 2. Site Boundary (Red) as provided for previous PEA

2.2.2 Preliminary Ground Level Roost Assessment (PGLRA) of Trees

Any trees within the site were assessed for their potential to support roosting bats on the day of the survey, via the presence of any PRFs. Suitable PRFs vary by species, but in trees, may include dense ivy, woodpecker holes, loose bark, areas of hollow trunk, hazard beams, and other forms of cavity. Where it was not possible to fully assess the trees from the ground, using binoculars, the trees were noted for additional surveying or assigned a precautionary bat roosting potential score. Such features were assessed using the guidelines set out in Bat Surveys for Ecologists (Collins, J., 2016).

2.3 Limitations

A species may be perceived as absent within the surrounding area during the desk study due to lack of records returned, however this is not the case, as it may be a consequence of lack of surveying in the search buffer area.

The findings presented within this report are valid for an 18-month period following the survey, in line with CIEEM (2019) guidance. Should the proposed development scope change in any way, then an updated Preliminary Ecological Appraisal will be required.

3. DESK STUDY

A number of protected and notable species records were returned within 2km of the centre of the proposed development site. All records will not be listed here, however the most significant, those which are considered to potentially be affected by the development of the site, will be briefly summarised. The full data are available upon request to those nominated on the request form, as some data may be classified as sensitive. The significant findings from the data search are summarised below.

3.1 Birds

The data search returned c.730 records of mammals within 2km of the site. Closest most recent is Curlew (*Numenius arquata*) at 65m from site. Other recent entries include House Sparrow (*Passer domesticus*) at 197m from site, Goldeneye (*Bucephala clangula*) at 448m, Black-headed Gull (*Chroicocephalus ridibundus*) at 448m, Herring Gull (*Larus argentatus*) at 492m from site, Skylark (*Alauda arvensis*) at 584m from site, Brambling (*Fringilla montifringilla*) at 641m from site

3.2 Mammals

The data search returned 130 records of mammals within 2km of the site, most significantly these included:-

- 77 entries for Bats closest most recent at 4m from site : Soprano Pipistrelle, Common Pipistrelle, Myotis sp., Brown Long-eared
- 33 entries for Otter (*Lutra lutra*), closest and most recent being recorded at 199m from the site
- 11 records of Western European Hedgehog (*Erinaceus europaeus*), closest recorded 412m from the site
- 11 entries for Badger (*Meles meles*), the closest being 572m from site
- 4 entries for Weasel (*Mustela nivalis*) the closest at 572m from site
- 3 entries for Polecat (*Mustela putorius*), closest also at 572m
- 5 entries for Stoat (*Mustela erminea*), the closest at 509m
- 1 entry for Hare (*Lepus europaeus*) at 1905m from site
- 2 entries for Red Squirrel (*Sciurus vulgaris*) at 572m from site
- 3 entries for Red Deer (*Cervus elaphus*) at 572m from site

3.3 Invertebrates

The data search returned c300 entries for Invertebrates, which were predominantly moths and butterflies, with many being recorded over a number of years at 641m from site (Teifi Marshes SSSI). The closest most recent entry is for Black Oil-beetle (*Meloe proscarabaeus*) at 321m from site.

3.4 Plants

The data search returned very few records of plants within 2km of the site. The closest record is 572m from the site, for Bluebell (*Hyacinthoides non-scripta*) WCA8. Additionally, Large Flowered Hemp Nettle (*Galeopsis speciosa*) is recorded at 572m and Annual Knawel (*Scleranthus annuus*) at 1289m.

Lower Plants: 7 old records for Lichen species at 572m

3.5 Reptiles

The data search returned over 50 records of reptiles within 2km of the site.

- 28 entries for Slow worm (*Anguis fragilis*), closest being recorded at 559m from the site
- 13 entries for Grass Snake (*Natrix natrix*) closest is at 572m from site
- 16 entries for Common Lizard (*Zootoca vivipara*) closest is at 572m from site
- 4 entries for Adder (*Viper berus*) closest is at 572m from site

3.6 Amphibians

The data search returned 17 records of amphibians within 2km of the site. These included

- 9 entries for Common Toad (*Bufo bufo*) closest is at 572m from site
- 6 entries for Common Frog (*Rana temporaria*), the closest being at 305m
- 3 entries for Palmate Newt (*Lissotriton helveticus*) the closest being 1063m from site

3.7 Bony Fish

The data search returned 7 entries, closest most recent being for European Eel (*Anguilla anguilla*) at 199m

3.8 Invasive Non-native species

Over 130 entries for invasive non-native species were returned, which include Molluscs, Flowering Plants, Duck and Goose species, as well as mammals such as American Mink (*Neovison vison*) at 413m.

3.9 Statutory Designated Sites

The data search showed that there were a number of Nationally or Internationally important sites (e.g., SSSIs, SACs or SPAs) which lie within the search buffer.

- SAC – Afon Teifi: designated for a range of species and habitats including Bullhead, River, Sea and Brook Lamprey, Floating Water-plantain, Otter, Atlantic Salmon and Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels.

- SSSI – Afon Teifi (as above)
 - Teifi Estuary Woodlands & Marshes: a series of sites supporting various habitats including Mud flats, Primary woodland, Unimproved pasture, Freshwater marsh, saltmarsh and Fen. These habitats support important populations of a range of species of bird, invertebrates, lichens, Rushes and flowering plants.
- National Nature Reserve – Coedmor: Atlantic Woodland dominated by Sessile Oak but other trees there include the Wild Service Tree, Small-leaved Lime, Ash and Wych Elm.

3.10 Non-statutory Designated Sites

- RIGS – St. Dogmaels Landslide
- Wildlife Trust Reserve – Teifi Marshes

3.11 Priority Areas/Ancient Woodland Inventory

Restored Ancient Woodland Site - 3 small areas to the north and east of the site
Ancient semi-natural woodland - 14 sites to the east, south and west

3.12 Waterbodies

There are no waterbodies within 0.25km of the site, other than the small area of standing water retained within the site (see below).

4. SITE APPRAISAL

Much of the site has been cleared since the previous PEA (2019), with removal of all the amenity grassland around the car park areas along the north of the site (adjacent to Pontycleifion Road). The remaining habitats present within the survey area include neutral semi-improved grassland, ephemeral/short perennial, and bare ground, with boundary features including a bank of screening trees. The completed Phase One Habitat Map is provided in Appendix B, with accompanying photographs in Appendix C. Weather on the day of the survey was overcast with intermittent showers, with heavy rainfall for the hours prior to the survey.

4.1 B2.2 Neutral Semi-Improved Grassland (poor)

The remaining patches of grassland to the south of the retained building were unmanaged at the time of survey, and support tussock forming grasses, Cock's Foot (*Dactylus glomerata*), with Fescue (*Festuca rubra*) and Creeping Bent (*Agrostis stolonifera*). Low-growing forbs and occasionally taller herbs include Yarrow (*Achillea millefolium*), Ribwort Plantain (*Plantago lanceolata*) and Common Ragwort (*Senecio jacobaea*). These areas function as Amenity grassland but have been mapped as Semi-improved (poor). See Photos 1 & 2.

4.2 A3.1 Parkland/scattered Trees

There are a number of small areas of ornamental planting with the occasional standard tree, including Poplar sp. Hawthorn and Cherry. Except a single Beech tree, none of the specimens were considered very mature and although will provide some habitat and forage for wildlife, they will not be discussed further in this report. See Photos 3 & 4

4.3 A1.1.2 Broadleaved Plantation

The tree-covered bank which forms the eastern boundary of the site, acts as a shelterbelt and screens the site from the main road (A487). Species here include Pedunculate Oak (*Quercus robur*), Willow species (*Salix* spp.), Guelder Rose (*Viburnum opulus*), Hazel (*Corylus avellana*) and Blackthorn (*Prunus spinosa*), with occasional Fir sp. See Photo 5

4.4. A2.2 Scrub (including tall ruderals and climbers)

The boundary stone walls support dense patches of Ivy (*Hedera helix*) in some places, with other creepers/vines also present (some from adjacent land). There is also a small area of Nettles and Bramble scrub under the shrubs/trees along the western perimeter. See Photo 6.

4.5 J4 Bare Ground

The majority of the site now comprises bare ground, and made ground (being of compacted rubble presumably from the demolition of the former hospital buildings). A large area to the north of the extant building is subject to an ongoing archaeological excavation, which has created large pits, which were holding water at the time of survey (see Photographs 7 & 8). The substrate is heavily disturbed, consisting mainly of exposed dirt and mud. Beyond the dig site there are some small areas of regenerating vegetation – see Ephemeral/Short Perennial below.

4.6 J1.3 Ephemeral/Short Perennial

Small areas of disturbed ground and deposited material at the base of the retained building, and surrounding the current archaeological working area, have begun the process of recolonisation. Species here include Common field Poppy (*Papaver rhoeas*), Creeping Thistle (*Cirsium arvense*), Goosefoot (*Chenopodium* sp.), Canadian Fleabane (*Erigeron canadensis*), Colt's-foot (*Tussilago farfara*) and Scentless Mayweed (*Tripleurospermum inodorum*). See Photos 9 & 10.

4.7 G1. Standing Water

A small area of standing water is present in the south of the site, and was previously within a larger area of unmanaged scrub and grassland. The remaining area surrounding the pond has been delineated with reptile exclusion fencing (See Photographs 11 & 12). Access was restricted due to depth of water present. The previous PEA described the pond as being surrounded by marginal vegetation including Common Reed (*Phragmites australis*) and a

considerable population of Sea Club Rush (*Bulboschoenus maritimus*). Lesser Water-plantain (*Baldellia ranunculoides*) is also present growing in the centre of the pond.

4.8 Protected Species Assessments

4.8.1 Incidental Records

The following species were recorded on the day of the survey: Dunnock, Wren, Great Tit and Robin

4.8.2 Invasive Non-Native Species (INNS)

The following INNS were recorded on the day of the survey: *Montbretia* (western boundary) and young specimens of *Buddliea* principally within disturbed ground around the retained building.

4.8.3 Preliminary Ground Level Roost Assessment

A single Beech tree remains within the site boundary. No suitable features were observed from the ground during the survey.

4.9 Badgers

No evidence of badger activity was found within the grassland or scrub and the habitats were not considered particularly suitable for foraging. The site is virtually land locked, save for limited access under Priory Bridge to adjacent wider countryside.

4.10 Bats

There are only a small number of mature/semi-mature trees around the site none of which exhibit any features to indicate their suitability for use by bats. The grasslands may provide foraging opportunities for generalist species such as pipistrelle. (NB the site/buildings are the subject of a separate Bat survey and so will not be discussed further in this report).

4.11 Otters

While the bulk of the site is not suitable to support Otter, the retained unmanaged grassland area with standing water (east of the stone wall) offers limited dense vegetation suitable for resting up. It is approximately 30m from the River Teifi and connects to other suitable riparian habitat to the east of Priory Bridge. There are significant records for Otter in the immediate locality. No evidence of Otter activity was noted on site.

4.12 Reptiles

The amenity grassland and retained rank grassland elements of the pond area offer some forage opportunity however the bulk of the site generally lacks the structural complexity that reptiles require to provide suitable ecotone areas for basking and cover. There are now piles of rubble and building stone, as a result of demolition, that would serve to shelter reptiles and other small animals, and some would be suitable for hibernation sites for Common Lizard and Slow worm. There is a very small area of mixed vegetation at the far southeastern corner of the site which may offer access underneath Priory Bridge to habitats to the east. The site is considered to have low suitability for reptiles.

4.13 Amphibians

The small area of standing water may be ephemeral for part of the year but is likely to offer suitable conditions for breeding in the Spring. There is ample vegetation surrounding the pond therefore the habitat present was considered to be suitable to support both a breeding population of amphibians and terrestrial phase amphibians. As for reptiles, piles of stone now occupying the site will provide shelter and potential hibernation sites.

4.14 Hazel Dormouse

There are no hedgerows on site however the plantation screening forming the boundary to the east has a reasonably dense shrub layer at the base of the tree-line, which offers good cover and foraging opportunity. It also connects to habitats east of the A487, via scrub in the south-eastern corner of the site, which links to hedgerows running east along the banks of the Afon Teifi. Therefore, this area of the site is considered to be suitable for Dormouse.

4.15 Water Voles

While there is a pond and some emergent vegetation on site, the area of suitable habitat is considered to be too small to support a breeding population of Water Vole, with no connection to larger areas of fresh-water habitat. Therefore, the habitat present was considered to be unsuitable to support water voles.

4.16 Birds

Birds observed during the survey were Dunnock (*Prunella modularis*), feeding within the retained pond area and Robin (*Erithacus rubecula*), Great Tit (*Parus major*) and Wren (*Troglodytes troglodytes*) all noted within the tree belt along the eastern boundary. The mix of grassland, trees, scrub and Ivy means that the site is suitable for foraging and nesting for a variety of birds.

5. ECOLOGICAL ASSESSMENTS

5.1 Designated Sites

5.1.1 Statutory Designated Sites

Four Statutory Designated Sites are found within 2km of the site: Afon Teifi SAC and SSSI, Teifi Estuary and Woodland & Marshes SSSI, Coedmor NNR. Provided that safeguarding measures are followed, pollution prevention measures in particular, as detailed in the supporting Construction Environmental Plan (CEMP I&G June 2021), then there will be no negative impact on these Sites.

5.1.2 Non-Statutory Designated Sites

The closest Non-Statutory Designated Site is the Teifi Marshes National Nature Reserve. Similarly, this site will be protected from adverse effects of construction by adherence to the CEMP.

5.1.3 Ancient Woodland Inventory

The closest woodland listed on the Ancient Woodland Inventory is an area of RAWs, located 0.2km north from the site. The works required to fulfil the proposed design will be relatively localised, with adverse impacts considered unlikely. Appropriate recommendations in relation to cautionary guidance are provided in Section 6. Any change in design will require an updated consultation by a suitably qualified ecologist.

5.2 Habitats, Flora and Fauna

Guidelines have been provided to assess the importance of an ecological feature value within a geographical context, as recommended within the CIEEM Guidelines for Ecological Impact Assessment (2016) and the CIEEM Guidelines for Ecological Report Writing (Dec. 2015). Please refer to Table 1 and 2 below.

Table 1. Ecological Value Assessments

Importance	Examples of features
International & European	European designated or proposed sites such as Ramsar Sites, Special Protection Areas, Special Areas of Conservation, World Heritage sites or Biosphere Reserves; or otherwise meeting criteria for European or International designation. Sites supporting populations of European important species. Species listed within the Annex's of The Conservation of Habitats & Species Regulations 2010
National	Nationally designated sites such as Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), areas of key habitats and species within the UK Biodiversity Action Plan. Sites supporting viable breeding populations of Red Data Book (RDB) species (excluding scarce species), or supplying critical elements of their habitat requirements. Species listed within the schedules of the Wildlife & Countryside Act 1981.
Regional	Sites containing viable areas of threatened habitats and species listed in a regional Biodiversity Action Plan, sites exceeding Site of Importance for Nature Conservation (SINC) criteria. Sites supporting viable populations of Nationally Scarce species or those included in the Regional Biodiversity Action Plan on account of their rarity, or supplying critical elements of their habitat requirements.
High Local	Sites meeting the criteria for a county, vice county or metropolitan area designation (such as SINC), which may include amenity and educational criteria in urban areas. Ancient semi-natural woodland. Designated Local Nature Reserves. Sites containing viable areas of any key habitat type or species identified in the Local Biodiversity Action Plan (LBAP). Sites supporting viable breeding populations of species known to be county/metropolitan rarities e.g., featuring in county 'red data book' or LBAP, or supplying critical elements of their habitat requirements.
Moderate Local	Undesignated sites or features considered appreciably to enrich the habitat resource within the context of the Borough or District, or included in the Borough or District LBAP. Amenity and educational functions will be recognised in urban areas. Sites with viable breeding populations of species listed as rare in the District or Borough LBAP or supplying critical elements of their habitat requirements.
Low Local	Undesignated sites or features considered appreciably enriching the habitat resource within the context of the Parish or neighbourhood.
Negligible	Low-grade and widespread habitats.

Table 2. Impact level Criteria

Severe	Permanent impacts
Major	Loss of feature and/or quality and integrity of feature; severe damage to key characteristics, features or elements.
Moderate	Loss of feature, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
Minor	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements
Negligible	Very minor loss or detrimental alteration to one or more characteristics, features or elements
Neutral	No impacts

5.2.1 Neutral Semi-Improved Grassland

The unmown area of semi-improved grassland may offer suitable habitat for breeding birds, invertebrates, reptiles and small mammals. Bats may forage on invertebrate populations which reside in this habitat. However, the habitat is of relatively low species-richness, and limited connectivity. The habitat value has been assessed as **negligible**. Under the current

proposed design, loss or damage to this habitat would be **negligible** without mitigation, as the area is of limited size and value.

5.2.2 Parkland/Scattered Trees

The scattered trees on site may offer limited habitat and forage for birds and invertebrates. Bats may forage on invertebrate populations which reside in this habitat. The habitat value has been assessed as **negligible**. Under the current proposed design, loss or damage to this habitat would be **negligible** without mitigation, however the proposed landscape design will likely result in a net gain.

5.2.3 Bare Ground/Ephemeral/Short Perennial

The area of bare ground is of recent creation and therefore of limited value, it may offer opportunistic habitat for birds, invertebrates, reptiles, and small mammals. Bats may forage on invertebrate populations which reside in this habitat. The habitat value has been assessed as **negligible**. Under the current proposed design, loss or damage to this habitat would be **negligible** without mitigation, as the proposed design will see the removal of all this low-quality habitat.

5.2.4 Broadleaved Plantation

The screening trees on the eastern boundary bank will provide habitat for a range of birds, small mammals and invertebrates. Bats may forage on invertebrate populations which reside in this habitat. The habitat value has been assessed as **Low Local**. Loss or damage to this habitat would be **Moderate** without mitigation, however the proposed design results in retention of this habitat.

5.2.5 Scrub

Much of the original scrub on site has now been removed, with the only remaining features being very small amounts of Bramble and Ivy, principally along western boundary. The habitat value has been assessed as **negligible**. Under the current proposed design, loss or damage to this habitat would be **negligible** without mitigation, as the proposed design will likely see the retention and enhancement of this habitat.

5.2.6 Standing Water

The small pond/standing water and retained habitat surrounding it will provide habitat for Amphibians, reptiles, invertebrates and small mammals. Bats may forage on invertebrate populations which reside in this habitat. The habitat value has been assessed as **Low Local**. Loss or damage to this habitat would be **Moderate** without mitigation, however the proposed design results in retention of this habitat.

5.3 UK BAP Priority Habitats and Species

UK BAP priority habitats and species were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). As a result of devolution, conservation action is now focused at a country-level rather than a UK-level, and the UK BAP was succeeded by the UK Post-2010 Biodiversity Framework in July 2012. The UK list of priority species, however, remains an important reference source and has been used to help draw up statutory lists of priority species and habitats in the four countries of the UK.

The field survey identified the on-site habitats as having the potential to provide some limited opportunities for the following groups which are also listed under UK BAP: bats, birds, small mammals, amphibians, reptiles and invertebrates.

5.4 Ecosystem Resilience

Area loss can cause populations of organisms to decline due to a decrease in habitat size. The habitats present on site are of low-grade and relatively widespread, particularly in the local area, therefore if proposed development site is cleared without any mitigation for development, the impact on ecosystem resilience is expected to be **low**.

6. CONCLUSIONS AND RECOMMENDATIONS

The combination of desk and field surveys undertaken at the proposed development site identified that much of the site has a **negligible** ecological value. The majority of the site is of limited ecological value, with the proposed layout retaining valuable habitats (trees and standing water). This offers opportunities in relation to Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty).

Recommendations necessary for the informing of the design process are provided below, as well as recommendations for biodiversity enhancement in order to fulfil the Biodiversity and Resilience of the Ecosystems Duty (Section 6 Duty). Where a species has been omitted, they are not considered a constraint to the proposed development.

6.1 Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty)

- 6.1.1 The Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (Section 6 Duty) applicable to Local Authorities. This duty filters through to all those participating in the Planning process.
- 6.1.2 Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.

6.1.3 It is therefore recommended, that in order to provide a net enhancement for the development, new native planting should be incorporated into the development using species of local provenance.

6.1.4 In order to provide a net benefit for biodiversity it is recommended appropriate trees in the surrounding area, as well as buildings in the proposed development, should incorporate artificial habitats such as bat bricks / boxes, bird boxes / bricks or Swift / swallow cups; the details of which should be agreed with the LA ecologist. Specific biodiversity enhancement measures, including the placement and specification of the above, will be provided in the accompanying Biodiversity Enhancement Plan. Further recommendations are given on a case-by-case basis below.

6.2 Non-Statutory Sites / Ancient Woodland

6.2.1 Appropriate guidelines, such as the Pollution Prevention Guidelines (PPG) (NetRegs, 2012) and the CIRIA C741 Environmental Good Practice on Site Guide (Charles and Edwards, 2015) should be adhered to at all times during the construction of the proposed development.

6.3 Grassland Habitats

6.3.1 Mitigation for loss of habitat may, in part, take the form of improved management for biodiversity on the remaining areas of land within the site.

6.3.2 Where possible, the species composition of any retained or created grassland post-development should be preserved, with the planting of the species identified during this Preliminary Ecological Appraisal.

6.3.3 Furthermore, subsequent management of the remaining on-site habitat should aim to achieve a good mosaic of sub-habitats, including areas of short turf, bare ground, long grass, and a limited amount of scrub.

6.3.4 Future management of currently mown grassland areas should seek to allow some areas to grow where possible, subject only to an annual cut, forming a transitional buffer between the site and adjacent habitat. Longer grass provides habitat for a greater diversity of plant species, which promotes biodiversity and supports a broader range of associated wildlife. This diversity contributes to the overall ecological balance of an area, enhancing ecosystem resilience and functioning.

6.3.5 Where possible, permeable hardstanding, such as 'grasscrete', should be utilised in the sites design to compensate for loss of grassland habitat on site.

6.4 Badger

6.4.1 Although the nearest record of badger returned in the desk study is 0.57km away from the site, the habitat to the east of the main road is suitable for sett creation and foraging badger. General construction safeguards should be implemented during any on-site management which will also protect other species groups using the site. These include:

- Any mammals should be protected from accessing materials through the use of spoil-proof fencing.
- Fencing off and covering of open excavations, in order to prevent animals becoming trapped or injured. Mammal ladders should be erected to allow any animals that may become trapped to leave the groundworks.
- Chemicals, such as fuels, should not be stored within 25m of waterbodies.
- If possible, access routes and machine should be chosen with the minimisation of sediment run-off as a priority

6.5 Otter

6.5.1 33 records of otter were returned within 2km of the site, and the site is immediately adjacent to the Afon Teifi. Therefore, the above guidelines for Badger will also safeguard any Otters in the event that they are opportunistically utilising the site for terrestrial habitat. Further precautions are included in the CEMP.

6.6 Bats

6.6.1 The nearest records of bats returned in the desk study were Soprano Pipistrelle, Common Pipistrelle, Myotis sp., Brown Long-eared located 4m away from the site. No suitable trees are found within the proposed development footprint and under the current design no tree felling in the broadleaved plantation (E boundary) is to take place, however, should this change, a suitably qualified ecologist should be consulted. Further recommendations may be proposed following this consultation.

The lighting scheme will follow best practice to avoid disturbance of bats and will be designed to maintain dark corridors for bats and other nocturnal animals. Lighting will be kept to a minimum and be away from adjacent woodland.

Where artificial lighting is necessary, this should utilise a number of key design points to limit any impact, as follows:

- Low level lighting pointed towards the ground; LED bulbs to be used of 3000 Kelvin and below (warm white light and not daylight);
- Use of light shields and hoods to direct the light downwards and prevent vertical and horizontal light spill; and

- Use of passive infrared (PIR) motion sensors on timers to ensure lights only come on when necessary.

Further information on bats and lighting can be found on the Bat Conservation Trust website www.bats.org.uk and the latest guidance in association with the Institution of Lighting Professionals can be found at: <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>.

6.7 Birds

- 6.7.1 Copious records of birds were returned during the desk study. All nesting birds are protected under Section 1 of the Wildlife and Countryside Act of 1981. Therefore, all vegetation clearance should be planned outside the nesting bird season. If management works must commence any time between the 1st of March and the end of August, it is recommended that a nesting bird check will be undertaken on the site by a suitably experienced ecologist. If an active bird nest is found, the nest area will be marked, and will be protected from disturbance or harm as advised by the Ecologist. Management procedures will not commence in the identified area until an Ecologist can confirm the young have fledged and the nest is vacant.

6.8 Reptiles & Amphibians

- 6.8.1 The nearest record of both reptile and amphibian returned in the desk study (Slow Worms, Common Frog) both located 0.5km away from the site. The habitat within the wider survey area presents common species of reptile (slow-worm and common lizard) and amphibian with foraging opportunities and suitable habitat. As such, management in suitable habitat (**including rubble piles now on site**) should take into account the possibility of such species sheltering or hibernating. It is recommended that a **Reptile and Amphibian Mitigation Method Statement** should be prepared and communicated to any contractors taking place in the management, in order to protect animals during site clearance and construction, which will likely detail a phased approach to vegetation clearance, as well as the careful removal of any refugia within the area of scrub / woodland by hand. Following such guidelines will also help safeguard terrestrial phase amphibians and small mammals that may be present on site.

7. LEGISLATION

7.1 Otters and the Law

7.1.1 The otter is a European Protected Species (EPS). It is against the law to damage or destroy an otter breeding site or resting place, or deliberately to capture, kill, injure or disturb an otter.

7.1.2 Otters are fully protected by the following pieces of legislation:

- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects otters, making it **an offence to:** -
 - *Intentionally or deliberately capture, injure or kill an Otter.*
 - *Damage or destroy a breeding or resting place of an Otter, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection*
 - *Intentionally or recklessly disturb an Otter in a place used for shelter or protection, or deliberately disturb Otters in such a way as to be likely significantly to affect (i) the ability of any significant group of Otters to survive, breed, rear or nurture their young, or (ii) the local distribution or abundance.*
 - *Intentionally or recklessly obstruct access to a place used for shelter or protection.*
 - *Possess an Otter (alive or dead), or any part of an Otter*
- Schedule 5 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000) fully protects otters, making it **an offence to:** -
 - *Intentionally or recklessly disturb any otter while it is occupying a structure or place which it uses for shelter or protection*
 - *Intentionally or recklessly obstructs access to any structure or place used by an otter for shelter or protection*
 - *Sell, offer or expose for sale any otter*

7.1.3 For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;

- i. granting the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
- ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
- iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

7.1.4 Otters are also protected by;

- Natural Environment and Rural Communities Act 2006 and now the Environment (Wales) Act 2016.
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in Wales

7.2 Bats and the Law

7.2.1 Bats are protected by the following pieces of legislation:

- Schedule 5 and 6 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000)
- The Environmental Damage (Prevention & Remediation) Regulations 2009 – A protected species and its habitat is protected under this legislation as well as others.
- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects all bats and their roosts, making it **an offence to deliberately kill, injure or capture** (take) bats; *to deliberately disturb bats; damage or destroy bat roosts or resting places* (this is considered an “Absolute Offence” as damage and destruction may detrimentally effect the Continuous Ecological Functionality of that roost / resting place); possess or transport a bat or any part of a bat; sell (or offer for sale) or exchange bats or parts of bats.
- For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;
 - i. the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
 - ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
 - iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

7.2.2 Bats are also protected by;

- Appendix III of the Bern Convention
- Appendix II of the Bonn Convention (including the Convention's Agreement on the conservation of Bats in Europe)
- Natural Environment and Rural Communities Act 2006 and now the Environment (Wales) Act 2016.
- All bats are listed in Annex IV of the EC Habitats Directive and the British species listed in Schedule 2 of the Habitats Regulations 1994 (as amended) and are therefore designated as *European Protected Species*. These *protected* species are afforded enhanced

protection and more stringent licensing provisions than those protected by the Wildlife and Countryside Act (WACA) alone.

7.3 The Hazel Dormouse and the Law

7.3.1 The hazel dormouse is a European Protected Species (EPS). It is against the law to damage or destroy a dormouse breeding site or resting place (summer or hibernation nest), or deliberately to capture, kill, injure or disturb a dormouse.

7.3.2 Dormice are fully protected by the following pieces of legislation:

- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects dormice, making it **an offence to**: -
 - *Intentionally or deliberately capture, injure or kill a dormouse.*
 - *Damage or destroy a breeding or resting place of a dormouse, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection*
 - *Intentionally or recklessly disturb a dormouse in a place used for shelter or protection, or deliberately disturb dormouse in such a way as to be likely significantly to affect (i) the ability to survive, breed, rear or nurture their young, and includes in the case of animals of a hibernating or migratory species, to hibernate or migrate or (ii) the local distribution or abundance.*
 - *Intentionally or recklessly obstruct access to a place used for shelter or protection.*
 - *Possess a dormouse (alive or dead), or any part of a dormouse*
- Schedule 5 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000) fully protects dormice, making it **an offence to**: -
 - *Intentionally or recklessly disturb any dormouse while it is occupying a structure or place which it uses for shelter or protection*
 - *Intentionally or recklessly obstructs access to any structure or place used by a dormouse for shelter or protection*
 - *Sell, offer or expose for sale any dormouse*

7.3.3 For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;

- i. granting the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
- ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.

- iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

7.3.4 Dormice are also protected by;

- Natural Environment and Rural Communities Act 2006 (England) and the Environment (Wales) Act 2016.
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in Wales

7.4 Reptiles and the Law

7.4.1 All of the UK native reptiles are protected by law. The common species of reptiles found in this locality are common lizard, slow-worm, adder and grass snake. It is illegal to intentionally kill or injure these species under Section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).

7.4.2 All native UK reptiles are considered of 'principle importance' under Section 7 of the Environment (Wales) Act 2016. This places a duty on every public authority, in exercising its functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

7.4.3 Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species (which includes all reptiles species) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.

7.5 Amphibians and the Law

7.5.1 All of the UK native amphibians are protected by law. The common species of amphibians in this locality are common frog, common toad, smooth newt and palmate newt. It is illegal to intentionally kill or injure these species under Section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).

7.5.2 The common toad is considered of 'principle importance' under Section 7 of the Environment (Wales) Act 2016. This places a duty on every public authority, in exercising its functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

7.5.3 Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species) which includes the Common Toad) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.

7.6 Birds and the Law

7.6.1 All species of bird are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). Protection was extended by the Countryside and Rights of Way (CRoW) Act 2000. Under the above legislation it is an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

7.6.2 Certain species are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and receive protection under Sections 1(4) and 1(5). The protection was extended by the Countryside and Rights of Way (CRoW) Act 2000. There are special penalties where the offences listed above are committed for any Schedule 1 species and it is also an offence to intentionally or recklessly:

- disturb any such bird when it is building its nest or while it is in or near a nest containing dependant young; or
- disturb the dependant young of any such bird.

7.7 Badgers and the Law

7.7.1 The protection of Badgers Act 1992 makes it illegal to kill, injure or take a badger, or interfere with a sett. In addition, they are listed on Schedule 6 of the Wildlife & Countryside Act 1981, which prohibits certain methods of killing and capture.

7.8 Water Voles and the Law

7.8.1 Water voles are listed under Schedule 5 of the Wildlife & Countryside Act 1981, receiving full protection since 2008. The Wildlife & Countryside Act 1981 (as amended), lists the following offences: -

- Intentionally kill, injure or take water voles (Section 9 (1)).
- Possess or control live or dead water voles or derivatives (Section 9 (2)).
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection (Section 9 (4) (a & c)).
- Intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose (Section 9 (4) (b)).

- Sell water voles or offer or expose for sale or transport for sale (Section 9 (5)).
- Publish or cause to be published any advertisement which conveys the buying or selling of water voles (Section 9 (5)).

7.9 Environment Act (Wales) 2016

- 7.9.1 This act has replaced 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. It came into force in May 2016.
- 7.9.2 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 doing so, public authorities must also seek to ‘promote the resilience of ecosystems’. Under Section 6, public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.
- 7.9.3 Section 7 of the Act places a duty on public authorities to take steps to maintain and enhance biodiversity. This section replaces the duty in section 42 of the NERC Act 2006. The Section 7 Priority Species under this act is a list of the living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. The Section 7 Priority Habitats is a list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.

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9. I&G ECOLOGICAL CONSULTING LEGAL DISCLAIMER

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We confirm that in preparing this Report we have exercised reasonable skill and care, taking into account the project objectives, the agreed scope of the work and prevailing site conditions.

Advice in this report is based on the judgement of I&G Ecological Consulting and the interpretation of data gathered during the course of their survey on the property named in this document.

The findings and advice given during the course of this survey is provided by employees of I&G Ecological Consulting acting only on behalf of I&G Ecological Consulting.

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Appendix A. LERC Data Search

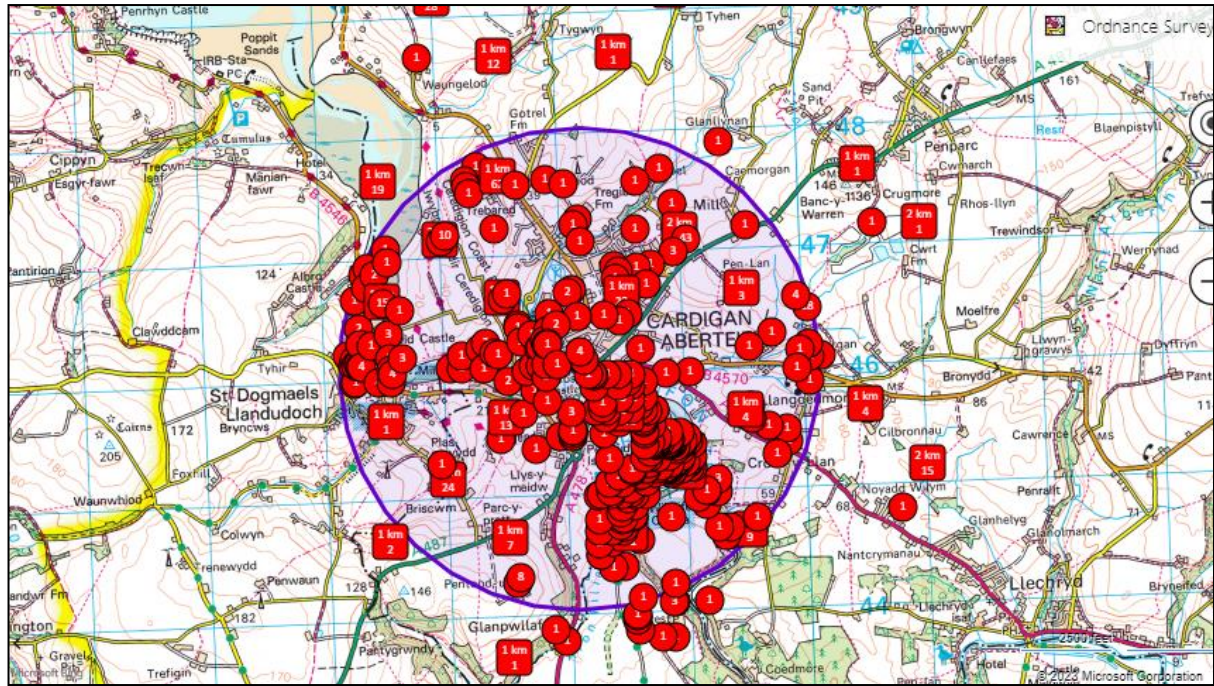


Figure 3. LERC Protected Species Data Search Records

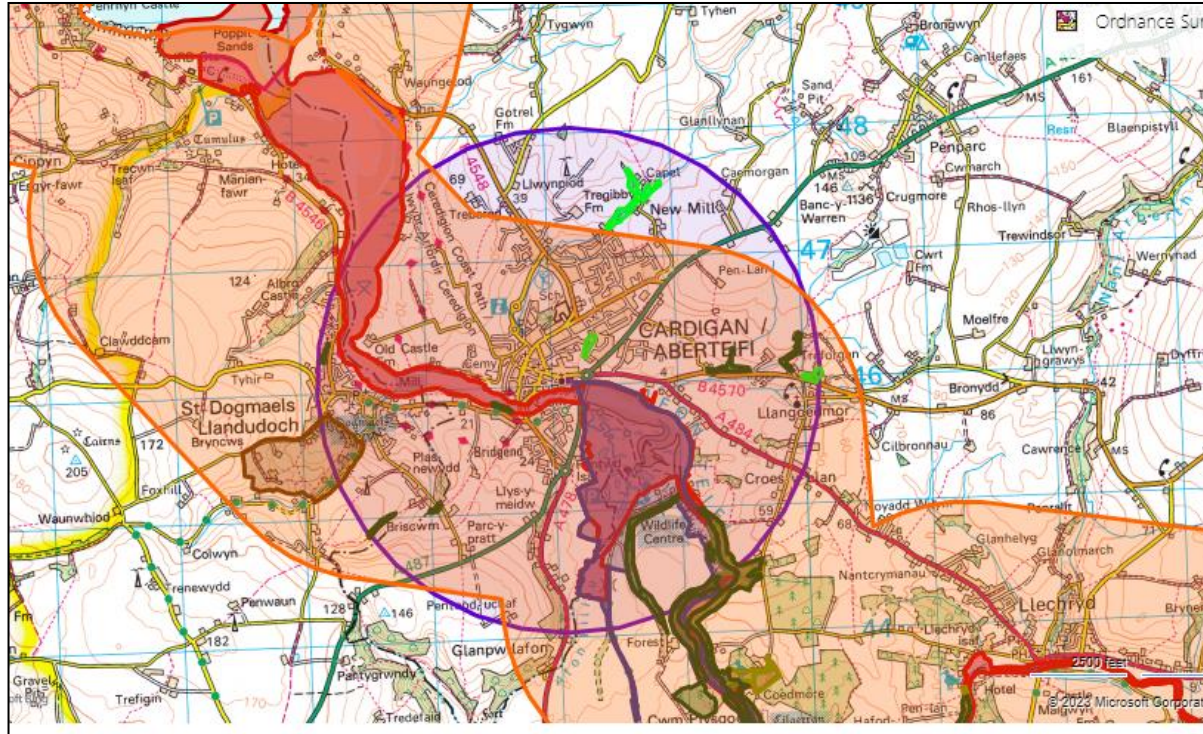









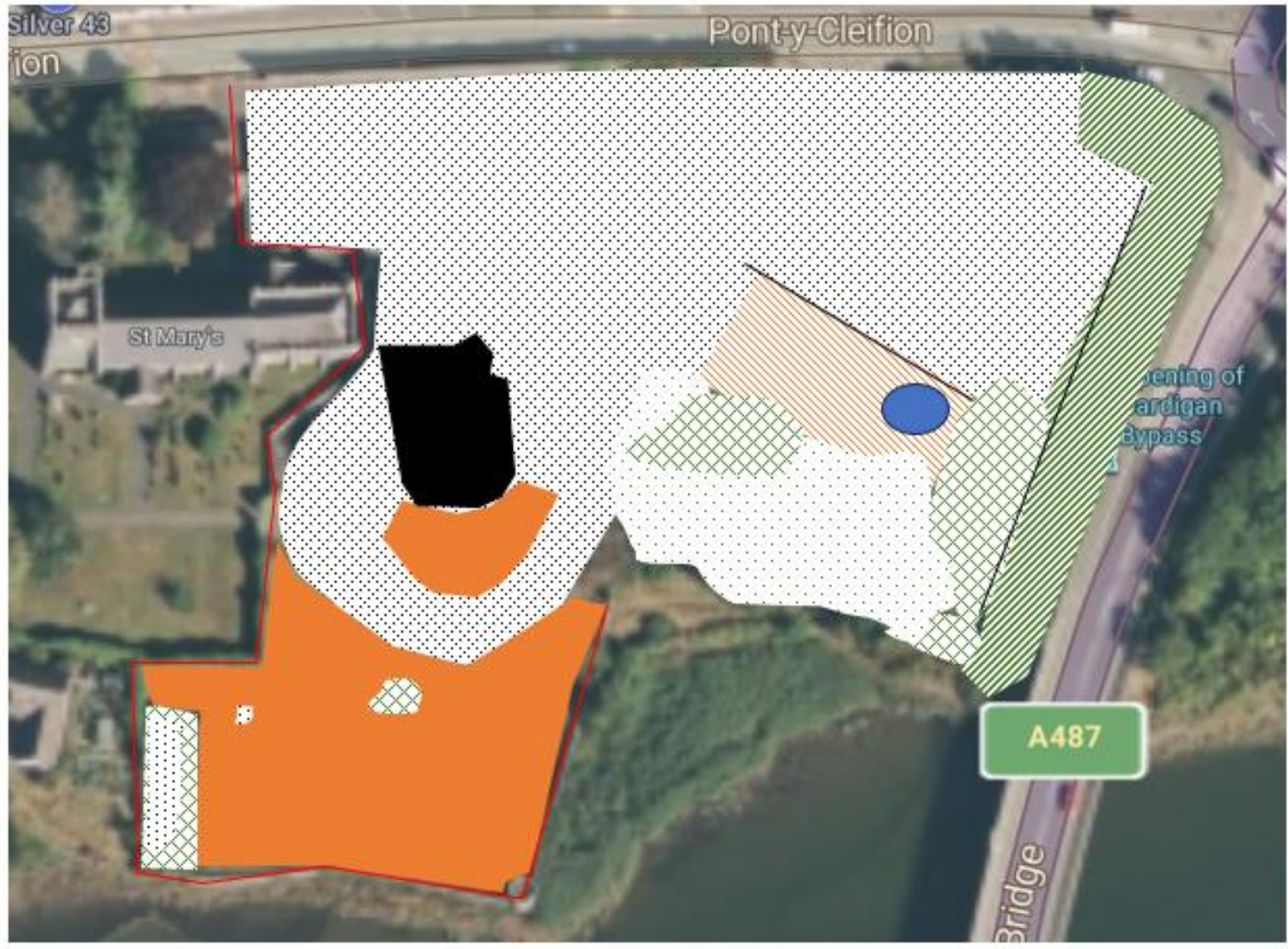


Figure 4.LERC Protected Sites Data Search

Appendix B. Phase One Habitat Plan

Legend

Colour	Code	Habitat Name
	G1	Standing Water
	A2.1	Dense continuous scrub
	J3.5	Buildings
	A3.3.3	Parkland/scattered trees (mixed)
	B2.2	Semi improved grassland
	C3.1	Tall herb and fern ruderal
	A1.1.1	Broadleaved Plantation
	J2.5	Wall
	J2.4	Fence



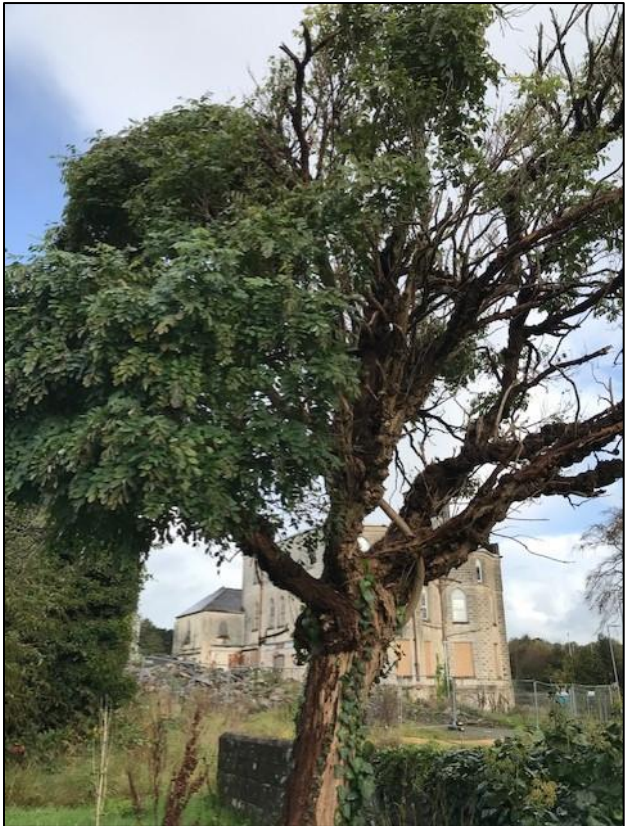
Appendix C. Photographs



Photograph 1. Neutral Semi-Improved Grassland



Photograph 2. Neutral Semi-Improved Grassland south of buildings



Photograph 3. Scattered Trees



Photograph 4. Scattered trees (SW boundary)



Photograph 5. Plantation trees bordering main road (background of image)



Photograph 6. Scrub (and brush material on grassland S.)



Photograph 7. Hardcore material (bare ground)



Photograph 8. Exposed earth (Bare ground archaeological dig site)



Photograph 9. Ephemeral regeneration and INNS (Buddleia)



Photograph 10. Ephemeral vegetation



Photograph 11. Retained Pond area



Photograph 12. Reptile exclusion fencing at pond area

Proposed Site Layout Plan

