



## **Ecological Appraisal Report:**

**Matrix Park Land,  
Beaufort Road,  
Morrison,  
Swansea,  
SA6 8HQ**

**Prepared by Dylan Llywelyn on behalf of I&G Ecological Consulting**

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## Summary

I & G Ecological Consulting Ltd were commissioned to undertake a preliminary ecological appraisal of an area of land, approximately 3.03 hectares in size, hereafter referred to as 'the site'. The site is located off Beaufort Road, Morrision, Swansea, SA6 8HQ. The preliminary ecological appraisal was undertaken 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. The proposed development consists of the construction of new industrial unites over hardstanding.

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

The site consists of a carpark, with associated hardstanding, as well as habitats such broadleaved semi-natural woodland, dense and scattered scrub, marshy grassland and ephemeral / short perennial.

This report presents the findings of the aforementioned desk study, and site appraisal undertaken in August 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 a preliminary ecological appraisal of an area of land, approximately 3.03 hectares in size, hereafter referred to as 'the site'. The site is located off Beaufort Road, Morrison, Swansea, SA6 8HQ. The preliminary ecological appraisal was undertaken 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. The proposed development consists of the construction of new industrial units over hardstanding.

This report presents the findings of both a desk study, and a site appraisal undertaken in August 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 site is located to the north of the Beaufort Reach roundabout, with the River Tawe found immediately adjacent, to the east. Two office building complexes and associated hardstanding carparks are found to the immediate south, belonging to NHS Wales and Matrix One. The site is located centrally at SS 67038 96493, with dominant marsh vegetation communities and associated scrub.



Figure 1. Site Location.

### **1.3 Proposed Development**

The proposed development comprises of the construction of a new industrial unit complex.

### **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, 2011) 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.

1.4.3 The Swansea Local Development Plan (LDP) 2010 – 2025 (Swansea Council, 2010) seeks to support growth in the County, with the aim of fulfilling such growth via sustainable means and enhancing the natural heritage of the county. Any development within the Swansea County Borough must adhere to these aims. Under the Future Wales: The National Plan 2040 (Welsh Government, 2021), development should ‘Safeguard areas for the purposes of improving the resilience of ecological network and ecosystems services, to identify areas for the provision of green infrastructure and to secure biodiversity enhancement (net benefit)’. Policies ER 6 and ER 8 of the Swansea LDP 2010 – 2025 (Swansea Council, 2010) refer to designated sites of ecological importance, and habitats / species respectively, and as such are of relevance to the following report (Table 1).

Table 1. Policies ER 6 and ER 8 of the Swansea LDP 2010 – 2025

Policy	Description
ER 6	<p>Development will not be permitted that would result in likely significant adverse effect on the integrity of sites of international or national nature conservation importance, except in the circumstances specified in relevant legislation.</p> <p>Development that would adversely affect locally designated sites of nature conservation importance should maintain and enhance the nature conservation interest of the site. Where this cannot be achieved development will only be permitted where it can be demonstrated that:</p> <ol style="list-style-type: none"> <li>i. The need for the development outweighs the need to protect the site for nature conservation purposes;</li> <li>ii. There is no satisfactory alternative location for the development that avoids nature conservation impacts; and</li> <li>iii. Any unacceptable harm is kept to a minimum by effect avoidance measures and mitigation, of where this is not feasible, compensatory measures must be put in place to ensure that there is no overall reduction in the nature conservation value of the area.</li> </ol>
ER 8	<p>Development proposals that would have a significant adverse effect on the resilience of protected habitats and species will only be permitted where:</p> <ol style="list-style-type: none"> <li>i. The need for development outweighs the nature conservation importance of the site;</li> <li>ii. The developer demonstrates that there is no satisfactory alternative location for the development which avoids nature conservation impacts; and</li> <li>iii. Any unavoidable harm is minimised by effective mitigation to ensure that there is no reduction in the overall nature conservation value of the area. Where this is not feasible, compensation measures designed to conserve, enhance, manage and, where appropriate, restore natural habitats and species must be provided.</li> </ol> <p>Development proposals should aim to minimise detrimental impacts on protected habitats and species and ecosystem resilience. This policy should be implemented in conjunction with Policies ER 6 Designated Sites of Ecological Importance and ER 9 Ecological Networks and Features of Importance for Biodiversity to ensure no net loss in overall biodiversity as a result of development and where possible there should be biodiversity gains.</p> <p>Protected habitats and species are those protected under European and UK legislation, as identified in TAN 5 Nature Conservation and Planning (2009). The legislation includes the Habitats Directive, Birds Directive, Wildlife and Countryside Act 1981, Environment (Wales) Act 2016. Protected habitat and species include priority habitats and species that are protected in Local Biodiversity Action Plans and emerging Nature Recovery Plans. A biodiversity and development SPG will be produced to provide further information on how biodiversity should be conserved and enhanced through development.</p> <p>Factors to be taken into consideration in assessing the significant adverse effect development proposals are likely to have on habitats and species are:</p> <ul style="list-style-type: none"> <li>• The current distribution and status of the protected habitat or species within the County;</li> <li>• All likely effects, including cumulative effects and impacts during construction;</li> <li>• The role of the habitats as connectivity pathways; and</li> <li>• Whether effective mitigation and/or compensatory measures have been provided; and</li> <li>• Maintaining and enhancing ecosystem resilience.</li> </ul>

## 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 31<sup>st</sup> August 2023, 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 12:00 on 31<sup>st</sup> August 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 invasive non-native plant species listed 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. Approximate Site Boundary

### 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 and in Appendices A and B.

#### 3.1 Birds

The data search returned 156 entries of birds which are listed on Schedule 1 of the Wildlife and Countryside Act (1981) within 2km of the site, comprising of (organised from nearest to furthest): little ringed plover (*Charadrius dubius*), kingfisher (*Alcedo atthis*), fieldfare (*Turdus pilaris*), redwing (*Turdus iliacus*), red kite (*Milvus milvus*), Mediterranean gull (*Ichthyaeetus melanocephalus*), whooper swan (*Cygnus cygnus*), crossbill (*Loxia curvirostra*), bittern (*Botaurus stellaris*), black-tailed godwit (*Limosa limosa*), black tern (*Chlidonias niger*), black redstart (*Phoenicurus ochruros*), barn owl (*Tyto alba*), green sandpiper (*Tringa ochropus*), firecrest (*Regulus ignicapilla*) and Cetti's warbler (*Cettia cetti*). The nearest record of little ringed plover returned was 0.1km from the site.

The data search returned 306 entries of birds which are listed on Section 7 of Principal Importance under the Environment (Wales) Act 2016 within 2km of the site, comprising of (organised from nearest to furthest): lapwing (*Vanellus vanellus*), song thrush (*Turdus philomelos*), bullfinch (*Pyrrhula pyrrhula*), black-headed gull (*Chroicocephalus ridibundus*), dunnoek (*Prunella modularis*), herring gull (*Larus argentatus*), kestrel (*Falco tinnunculus*), skylark (*Alauda arvensis*), house sparrow (*Passer domesticus*), starling (*Sturnus vulgaris*), pied flycatcher (*Ficedula hypoleuca*), linnet (*Carduelis cannabina*), reed bunting (*Emberiza schoeniclus*), whooper swan (*Cygnus cygnus*), crossbill (*Loxia curvirostra*), bittern (*Botaurus stellaris*), lesser redpoll (*Acanthis flammea*), tree pipit (*Anthus trivialis*), grasshopper warbler (*Locustella naevia*), yellowhammer (*Emberiza citrinella*) and cuckoo (*Cuculus canorus*). The nearest record of lapwing returned was 0.1km from the site.

#### 3.2 Mammals

The data search returned 216 entries of mammals which are categorised as priority species within 2km of the site, such as (organised from nearest to furthest): Eurasian otter (*Lutra lutra*), West European hedgehog (*Erinaceus europaeus*), American mink (*Neovison vison*), common pipistrelle (*Pipistrellus pipistrellus*), Daubenton's bat (*Myotis daubentonii*), weasel (*Mustela nivalis*), brown hare (*Lepus europaeus*) and grey seal (*Halichoerus grypus*). The nearest record of otter returned was 0.11km from the site.

There are eight records of bat roosts within 2km of the site, with the closest located 0.54km from the site, belonging to an unidentified bat species.

### 3.3 Invertebrates

The data search returned 124 entries of invertebrates (moths, butterflies and beetles) which are listed in Section 7 of Principal Importance under the Environment (Wales) Act 2016 within 2km of the site, comprising of (organised from nearest to furthest): brown-banded carder bee (*Bombus humilis*), dark-barred twin-spot carpet (*Xanthorhoe ferrugata*), small phoenix (*Ecliptopera silaceata*), white ermine (*Spilosoma lubricipeda*), neglected rustic (*Xestia castanea*), crescent (*Helotropha leucostigma*), dot moth (*Melanchra persicariae*), dusky brocade (*Apamea remissa*), buff ermine (*Spilosoma luteum*), rustic (*Hoplodrina blanda*), sallow (*Xanthia icteritia*), powdered quaker (*Orthosia gracilis*), brindled beauty (*Lycia hirtaria*), cinnabar (*Tyria jacobaeae*), small heath (*Coenonympha pamphilus*), wall (*Lasiommata megera*), latticed heath (*Chiasmia clathrata*), rosy rustic (*Hydraecia micacea*), shoulder-striped wainscot (*Leucania comma*), august thorn (*Ennomos quercinaria*), knot grass (*Acronicta rumicis*), grey dagger (*Acronicta psi*), rosy minor (*Melitaea trivia*), small blue (*Cupido minimus*), white-letter hairstreak (*Satyrrium w-album*), ghost moth (*Hepialus humuli*) and small pearl-bordered fritillary (*Boloria selene*). The nearest record returned belonged to brown-banded carder bee, located 0.44km from the site.

### 3.4 Plants

The data search returned 0 entries of plants which are categorised as priority species under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) within 2km of the site, comprising of (organised from nearest to furthest): blue bell (*Hyacinthoides non-scripta*) and slender cottongrass (*Eriophorum gracile*). The nearest record of bluebell returned was 0.09km from the site.

The data search returned 11 entries of plants which are categorised as priority species listed under Section 7 of Principal Importance under the Environment (Wales) Act 2016) within 2km of the site, comprising of (organized from nearest to furthest): tongue-leaf copper-moss (*Scopelophila cataractae*), stag's-horn clubmoss (*Lycopodium clavatum*), cornflower (*Centaurea cyanus*), *Punctelia jeckeri* and entire threadwort (*Cephaloziella calyculata*). The nearest record of tongue-leaf copper-moss returned was 0.46km from the site.

### 3.5 Reptiles

The data search returned 14 entries of reptiles which are categorised as priority species (listed in Schedule 5 of the Wildlife and Countryside Act, 1981, and / or Section 7 of Principal Importance under the Environment (Wales) Act 2016) within 2km of the site, comprising of (organized from nearest to furthest): common lizard (*Zootoca vivipara*), grass snake (*Natrix Helvetica*), adder (*Vipera berus*) and slow-worm (*Anguis fragilis*). The nearest record of common lizard returned was 0.46km from the site.

### 3.6 Amphibians

The data search returned 107 entries of amphibians which are categorised as priority species (listed in Schedule 5 of the Wildlife and Countryside Act, 1981, and / or Section 7 of Principal Importance under the Environment (Wales) Act 2016) within 2km of the site, comprising of (organised from nearest to furthest): common toad (*Bufo bufo*), common frog (*Rana*

*temporaria*), palmate newt (*Lissotriton helveticus*), smooth newt (*Lissotriton vulgaris*), and great crested newt (*Triturus cristatus*). The nearest record of common toad returned was 0.06km from the site, whilst the only record of great crested newt was 1.14km from the site.

### 3.7 Invasive Non-native species

The data search returned 298 records of invasive non-native species, listed under Schedule 9 of the Wildlife and Countryside Act, 1981 within 2km of the site, comprising of (organised from nearest to furthest): black swan (*Cygnus altratus*), Canada goose (*Branta canadensis*), water fern (*Azolla filiculoides*), Japanese knotweed (*Reynoutria japonica*), Himalayan balsam (*Impatiens glandulifera*), Himalayan cotoneaster (*Cotoneaster simonsii*), American mink (*Neovison vison*), red kite (*Milvus milvus*), barnacle goose (*Branta leucopsis*), bar-headed goose (*Anser indicus*), ring-necked parakeet (*Psittacula krameri*), Egyptian goose (*Alopochen aegyptiaca*), wall cotoneaster (*Cotoneaster horizontalis*), Montbretia (*Crocsmia x crocosmiiflora*), *Rhododendron ponticum*, *Lamiastrum galeobdolon subsp. argentatum*, Japanese rose (*Rosa rugosa*) and hollyberry cotoneaster (*Cotoneaster bullatus*). The nearest record of black swan returned was 0.12km from the site.

### 3.8 Statutory Designated Sites

The desk study returned one record of statutory designated sites:

- Six Pit, Swansea Vale and White Rock (0.47km south).

### 3.9 Non-Statutory Designated Sites

The desk study returned 13 records of non-statutory designated sites of environmental concern, all designated as Sites of Importance for Nature Conservation (SINCs), located within 2km of the site:

- Fendrod Lake and Nant-y-Fendrod (0.06km south, north-east)
- Tawe Corridor (0.07km west)
- Main Swansea – Fishguard Railway Line (0.25km south)
- Pluck Lake (0.46km south)
- Trewyddfa Slopes (0.49km north-west)
- Llewellyn Heath (0.96km north-west)
- Trallwen Marsh and Wood (1.18km east)
- Kilvey Hill (1.48km south)
- Pentre Tip (1.51km south-west)
- Swansea Vale / Fendrod NR (1.84km)
- Pentredwr Grasslands (1.88km east)
- Penlan Slopes (1.9km south-west)
- Llansamlet Marshes (1.97km north-east)

### 3.10 NRW Priority Areas

One record of NRW Priority Area was returned during the desk study, belonging to an area of Lowland Wetland, located 1.99km south.

### 3.11 Ancient Woodland Inventory

Records of five Ancient Semi-Natural Woodlands (ASNW) were returned during the desk study. The nearest woodland listed on the Ancient Woodland Inventory is an area of ASNW, found 0.91km west.

### 3.12 Waterbodies

Refer to Table 2 for a list of waterbodies / watercourses within 0.25km of the site.

Table 2. Waterbodies within 0.25km of the site

<b>Waterbody / Watercourse ID</b>	<b>OS Grid Reference</b>	<b>Description</b>
River Tawe	SS 66959 96541	The River Tawe is found immediately adjacent to the site on the east, and the Tawe Corridor is designated a SINC.
Waterbody #1	SS 67068 96325	Located immediately to the east, this waterbody consists of two linear lake channels and associated amenity areas. Part of Fendrod Lake and Nant-y-Fenrod SINC.
Fendrod Lake	SS 67584 96813	Fendrod lake is located 0.25km north-east of the site, part of Fendrod Lake and Nany-Fendrod SINC.

#### 4. SITE APPRAISAL

The site consists of a carpark, with associated hardstanding, as well as habitats such broadleaved semi-natural woodland, dense and scattered scrub, marshy grassland and ephemeral / short perennial. Refer to Appendix B for the completed Phase One Habitat Map and Appendix C for Photographs.

##### 4.1 A1.1.1 Broadleaved Semi-Natural Woodland

Woodland is found along the eastern (Photograph 1) border of the site, adjacent to the River Tawe corridor, as well as parts of the northern and eastern site boundary (Photographs 2 and 3). Here, hawthorn (*Crataegus monogyna*) and non-native buddleja (*Buddleja davidii*) is frequent, with occasional non-native Italian alder (*Alnus cordata*), common alder (*Alnus glutinosa*), sycamore (*Acer pseudoplatanus*), non-native Norway maple (*Acer platanoides*), ash (*Fraxinus excelsior*), and dogwood (*Cornus sanguinea*). The woodland shows some obvious signs of plantation with its inclusion of staple 'park trees' such as Italian alder and Norway maple, however the bulk of the woodland comprises native species and it is likely that this has semi-natural origins.

Understorey species include frequent ivy (*Hedera helix*), with occasional scaly male fern (*Dryopteris affinis*), heart's-tongue fern (*Asplenium scolopendrium*), common bent (*Agrostis capillaris*) and an unidentified *Viburnum* species. Ground ivy was also found rarely in this habitat, with just one small patch recorded on the eastern side of the public footpath along the western boundary, adjacent to the river corridor.

Japanese knotweed (*Fallopia japonica*) was recorded along the river banks (Photograph 4), with the invasive species dominating the area in the north-west of the site. Additionally, invasive Himalayan balsam (*Impatiens glandulifera*) was recorded along the river corridor just south of this area (Photograph 5). Both species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (Refer to Section 4.6.1).

##### 4.2 A2.1 Dense Scrub and A2.2 Scattered Scrub

Scrub is a prominent habitat type throughout the site, with dense scrub pockets immediately adjacent to the north of the car park area (Photograph 6), as well as bordering the woodland that resides along the eastern site boundary (Photograph 7). Additionally, clusters of scattered scrub are also found frequently throughout the site (Photograph 8), as well as many lone shrubbier species. Water-loving species such as goat willow (*Salix caprea*) and purple willow (*Salix purpurea*) are found frequently in the scrubbier habitat, with occasional alder. Rarely occurring species include saplings of larger trees, such as English oak (*Quercus robur*), as well as dog rose (*Rosa canina*) and gorse (*Ulex europaeus*). Japanese knotweed was also recorded within this habitat (Photograph 9).

##### 4.3 B5 Marshy Grassland

The dominant vegetative community throughout the site is that of marshy grassland, with moderate species diversity shown in this habitat (Photographs 10 to 12). Graminoid species indicative of marshy conditions are occasionally distributed throughout the sward, however

in patches of inundated substrate they range from locally frequent, to locally abundant. Such species include reed sweet-grass (*Glyceria maxima*), tufted hair grass (*Deschampsia cespitosa*), hard rush (*Juncus inflexus*), soft rush (*Juncus effusus*), jointed rush (*Juncus articulatus*), glaucous sedge (*Carex flacca*), star sedge (*Carex echinata*), pendulous sedge (*Carex pendula*) and bulrush (*Typha latifolia*), and wood small-reed (*Calamagrostis epigejos*). Other grasses include sweet vernal (*Anthoxanthum odoratum*) and Yorkshire fog (*Holcus lanatus*). The sward is varied in height, with some taller, dense tussocks of graminoid species, as well as areas of smaller perennial species, exposed areas of substrate, and inundated areas. A carpet of mosses is found throughout.

Water mint (*Mentha aquatica*) is frequent throughout this habitat, occurring in abundance along inundated areas of substrate, with bird's-foot trefoil (*Lotus corniculatus*) also found in large numbers throughout the site. Fleabane (*Pulicaria dysenterica*) is found frequently, with occasional creeping buttercup (*Ranunculus repens*), common vetch (*Vicia sativa*), ribwort plantain (*Plantago lanceolata*), lesser spearwort (*Ranunculus flammula*), curled dock (*Rumex crispus*), common knapweed (*Centaurea nigra*), dandelion (*Taraxacum officinale*) and creeping cinquefoil (*Potentilla reptans*). Rarer species in this habitat include cow parsley (*Anthriscus sylvestris*), red bartsia (*Odontites verna*), ox-eye daisy (*Leucanthemum vulgare*), meadow buttercup (*Ranunculus acris*), rosebay willowherb (*Chamaenerion angustifolium*), silverweed (*Argentina anserina*), ribbed melilot (*Melilotus officinalis*), red clover (*Trifolium pratense*), wild strawberry (*Fragaria vesca*) and areas of scattered bramble (*Rubus fruticosus*). Purple loosestrife (*Lythrum salicaria*) is locally abundant immediately adjacent to the central area of dense scrub, occurring nowhere else throughout the site (Photograph 13). Grass snake was observed in this habitat, a species listed in Schedule 5 of the Wildlife and Countryside Act, 1981 (Refer to Section 4.6.1).

#### **4.4 J1.3 Ephemeral / Short Perennial and J4 Bare Ground**

A small area of ephemeral / short perennial and bare ground habitat is found adjacent to the west of the car park (Photograph 14). Here the substrate is gravelly, with areas of inundation and some vegetation indicative of such conditions present. Species include frequent creeping bent (*Agrostis stolonifera*), daisy (*Bellis perennis*), dandelion, cat's-ear (*Hypochaeris radicata*), cow parsley, fleabane, yarrow (*Achillea millefolium*) and an unidentified moss species. Occasional species include hemp agrimony (*Eupatorium cannabinum*), Italian alder saplings, common alder saplings, imperforate St. John's wort (*Hypericum maculatum*), with ribwort plantain, remote sedge (*Carex remota*), glaucous sedge, jointed rush, sweet vernal grass found rarely.

#### **4.5 J4 Bareground / Hardstanding**

Bare ground in the form of hardstanding is found in the car park and road areas of the site.

## **4.6 Protected Species Assessments**

### *4.6.1 Incidental Records*

A single grass snake was observed in the area of marshy grassland (Photograph 15), a species listed under Schedule 5 of the Wildlife and Countryside Act, 1981, and of Section 7 Principal Importance under the Environment (Wales) Act 2016).

A brown-banded carder bee was observed in the area of marshy grassland, a species listed as of Principal Importance under Section 7 of the Environment (Wales) Act 2016).

A variety of butterflies and dragonflies were also observed on the day of the survey, however successful identification could not be made.

### *4.6.2 Invasive Non-Native Species*

Japanese knotweed was recorded in the central area of the site, amongst an area of scrub, as well as along the northern area of river bank. Himalayan balsam was also recorded alongside the river bank. Both species are listed under Section 9 of the Wildlife and Countryside Act 1981.

## 5. ECOLOGICAL ASSESSMENTS

### 5.1 Designated Sites, 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 3 and 4 below. Refer to current proposed design.

Table 3. 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 4. 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 Designated Sites

### 5.2.1 Statutory Designated Sites

The closest statutory designated site is Six Pit, Swansa Vale and White Rock SSSI, located 0.47km south of the site. Under the proposed design. The works required to fulfil the proposed design will be relatively localised, therefore adverse effects on statutory designated sites are not anticipated and statutory designated sites will not be considered further in this report. Any change in design may require an updated assessment by a qualified ecologist. Further recommendations are provided in Section 6.

### 5.2.2 Non-Statutory Designated Sites

Fendrod Lake and Nant-y-Fendrod SINC is located 0.06km north-east of the site, whilst Tawe Corridor SINC is located 0.07km west. As such, two non-statutory sites of **regional** value are within the immediate vicinity of the site. Under the proposed design, the works required to fulfil the proposed design will be relatively localised, however due to the close proximity and scope of the design, there is still a risk of adverse effects on non-statutory designated sites, such as effects brought on by sediment release, changes in drainage due to the conversion of the site into hard standing, as well as the removal of habitats which offer green corridors to species utilising the sites. As such, it is hypothesised that works on the site have the potential to **moderately** impact the above non-statutory designated sites. Any change in design may require an updated assessment by a qualified ecologist. Further recommendations are provided in Section 6.

### 5.2.3 Ancient Woodland Inventory

The closest woodland listed on the Ancient Woodland Inventory is an area of ASNW, located 0.91km west of the site and of **high local** value. The works required to fulfil the proposed design will be relatively localised, therefore the risk of adverse impacts to Ancient Woodland are considered **negligible**. As such, the ancient woodland inventory will not be considered further in this report.

## 5.3 Habitats

### 5.3.1 Woodland Habitats

The woodland and woodland edge habitat present on site offers suitable habitat and foraging opportunities for a number of breeding birds, invertebrates, terrestrial phase amphibians, reptiles and small mammals. Bats may roost in trees found within the woodland, forage on invertebrate populations which reside in this habitat, and use any linear treelines as a commuting feature. The habitat value has been assessed as **moderate local**. Under the current proposed design, loss or damage to this habitat would be **minor** without mitigation, as no removal of woodland habitat is anticipated, however any construction activities may adversely impact the habitat and / or species using it. Any change in design may require an updated assessment by a qualified ecologist, with the removal of trees significantly increasing the potential loss or damage to this habitat without mitigation. Further recommendations are provided in Section 6.

### 5.3.2 Scrub Habitats

The scrub present on site offers suitable habitat and foraging opportunities for a number of breeding birds, invertebrates, terrestrial phase amphibians, reptiles and small mammals. Bats may forage on invertebrate populations which reside in this habitat, and use any linear scrub as a commuting feature. Whilst the bramble present on site offers suitable forage in the form of fruit, for a number of birds and small mammals, it is widespread in the surrounding habitat. The habitat value has been assessed as **minor**. Under the current proposed design, loss or damage to this habitat would be **major** without mitigation, as the proposed design requires the removal of scrub on site. Should the design option be altered, this assessment may change. Any change in design may require an updated assessment by a qualified ecologist. Further recommendations are provided in Section 6.

### 5.3.3 Marshy Grassland

The area of marshy grassland may offer habitat for birds, invertebrates, reptiles and small mammals. Bats may forage on invertebrate populations which reside in this habitat. Terrestrial-phase amphibians may use the habitat when commuting and foraging. With some areas of inundated substrate identified on the day of the survey, it is possible that ephemeral pools may offer breeding opportunities for amphibians. The habitat value has been assessed as **high local**, with relatively good habitat present on site, supporting a variety of marshy vegetation, and with grass snake observed on the day of the survey. Under the current proposed design, loss or damage to this habitat would be **severe** without mitigation, as the proposed design requires the removal of all marshy grassland on site. Any change in design may require an updated assessment by a qualified ecologist. Further recommendations are provided in Section 6.

### 5.3.4 Ephemeral / Short Perennial

The area of ephemeral / short perennial habitat may offer opportunistic habitat for birds, invertebrates, reptiles and small mammals. Bats may forage on invertebrate populations which reside in this habitat. Terrestrial-phase amphibians may use the habitat when commuting and foraging. The habitat value has been assessed as **negligible** as it is low-grade and widespread. Under the current proposed design, loss or damage to this habitat would be **severe** without mitigation as it will be removed. Any change in design may require an updated assessment by a qualified ecologist. Further recommendations are provided in Section 6.

## 5.4 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 support the following groups in varying capacities, which are also listed under UK BAP: bats, birds, small mammals, amphibians, reptiles and invertebrates.

## 5.5 Ecosystem Resilience

Area loss can cause populations of organisms to decline due to a decrease in habitat size. Several habitats present on site are relatively widespread, particularly in the wider area, such as scrub and ephemeral / short perennial, however the dominant habitat of marshy grassland is a good example of the habitat and has the potential to support a number of protected species. Therefore, if the proposed development site is cleared without any mitigation for development, the impact on ecosystem resilience is expected to be ***moderate***. In an increasingly urbanised area of Swansea, the habitats present on site offer a connectivity pathway for a variety of species, as well as relatively good vegetative species diversity. Approximately 2.33 hectares of marshy grassland is present on site and was observed to offer suitable habitat for grass snake and potentially other reptile species. Should the results of any further surveys listed in Section 6 confirm the likely presence of any protected species, this assessment may require updating by a suitably qualified ecologist.

## 6. CONCLUSIONS AND RECOMMENDATIONS

The combination of desk and field surveys undertaken at the proposed development site identified that the site has a **high local** ecological value. The dominant habitat of marshy grassland possesses relatively good plant species diversity, with reptiles confirmed to be using the site on the day of the survey. Other habitats present on the site may provide habitat for a number of protected species, with woodland / woodland edge habitat found along the site boundaries, and scrub adding to the structural complexity of the site.

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.

### 6.2 Non-Statutory Designated Sites

6.2.1 It is recommended that a Construction Ecological Management Plan (CEMP) be produced by a suitably qualified Ecologist upon finalising the design in order to fully consider sensitive areas, such as Fendrod Lake and Nant-y-Fendrod and Tawe Corridor SINC, in consideration of Policies ER 6 and ER 8 in the Swansea LDP (Swansea Council, 2010).

6.2.2 This should include a monitoring and reporting framework, allowing the client to assess the effectiveness of the implemented measures and ensure ongoing compliance with environmental requirements. This may involve regular site inspections, ecological surveys, and the collection of environmental data to track changes in the ecosystem over time.

- 6.2.3 The CEMP may utilise the information presented in this report to outline the strategies, measures, and guidelines for managing and minimising the environmental impact of the proposed development on the surrounding ecosystems. The CEMP should outline the applicable environmental laws, regulations, and permits that need to be adhered to during the construction process. This ensures that the project remains in compliance with local, regional, and national environmental requirements.
- 6.2.4 Furthermore, the CEMP should detail strategies and measures to mitigate and minimise the potential negative impacts on the environment. This can include measures to protect and preserve sensitive habitats, rare species, and important ecological features. It may involve implementing erosion and sediment control measures, managing stormwater runoff, and preventing pollution from construction activities. The plan should address reducing, reusing, and recycling construction materials to minimise waste generation. It may also outline protocols for the safe handling and disposal of hazardous materials. 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.
- 6.2.5 The CEMP may include provisions for habitat restoration and conservation. This could involve replanting native vegetation, creating wildlife corridors, or establishing protected areas to compensate for any habitat loss or fragmentation (refer to below Sections for further information).

### **6.3 Woodland Habitats**

Any loss of woodland should be mitigated against during the design process where possible. It is recommended that a Landscape and Ecological Management Plan (LEMP) be produced in order to support the Environment (Wales) Act 2016 Section 6 duties in relation to the maintenance and enhancement of biodiversity on site. A LEMP is a site-specific document that outlines both short-term and long-term strategies for overseeing the cultivation, safeguarding, and improvement of biodiversity within and adjacent to a newly developed area, whether these be through planting or artificial means. This document will include the specifications and location of any new planting, whether it be for mitigation against loss in other areas on the site, or for biodiversity enhancement measures such as those briefly mentioned in Section 6.1. All habitats present on site should be considered; however, priority should be given to the marshy grassland and woodland habitats.

### **6.4 Scrub Habitats**

- 6.4.1 Any loss of scrub should be mitigated for by suitable new planting where possible, with trees and scrubs of local provenance. It is recommended that a scrub buffer be maintained along margins and treelines, as it offers habitat, structural diversity and commuting features for a variety of wildlife. The aim should be to improve on the species diversity present in any retained scrub. Landscaping should include berry bearing species such as:

- Blackthorn (*Prunus spinosa*): Produces sloe berries that are valuable for birds and wildlife.
- Hawthorn (*Crataegus monogyna*): Offers dense cover and vibrant red berries that attract birds and small mammals.
- Dog Rose (*Rosa canina*): Produces bright red hips in autumn, which are a valuable food source for birds and mammals.
- Guelder Rose (*Viburnum opulus*): This deciduous shrub produces clusters of white flowers in spring, followed by red berries that persist into winter, providing food for birds.
- Elder (*Sambucus nigra*): Elder is a fast-growing shrub that produces creamy-white flower clusters in early summer, which later develop into dark berries. It attracts pollinators and birds.

6.4.2 To prevent excessive scrub invasion in retained grassland, encroachment needs to be controlled and this is best achieved via annual clearing, before dense thickets are formed. Also, the application of artificial fertilisers will reduce the plant species diversity of a site and encourage denser foliage to over-shadow the ground and should therefore be avoided.

## **6.5 Grassland and Ephemeral / Short Perennial Habitats**

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

6.5.2 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.

6.5.3 The preservation of, and incorporation into the design, of areas of marshy grassland should be a priority. Under the current design, the majority of this habitat will be removed, which will have a significant adverse impact on Environment (Wales) Act 2016 Section 6 duties. Appropriate mitigation may seek to retain areas of the habitat as is, or incorporate it into Sustainable Drainage Systems (SuDS). The proposed design may also seek to implement areas of permeable hardstanding.

## **6.6 Badger**

6.6.1 Although the nearest record of badger is 0.75km from the site, the habitat in the wider survey area is suitable for sett creation and foraging badger. General construction safeguards should be implemented during any on-site management which, 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.
- If possible, access routes and machine should be chosen with the minimisation of sediment run-off as a priority

## **6.7 Otter**

6.7.1 The nearest record of otter returned in the desk study is 0.11km away from the site. The River Tawe is located immediately adjacent, with populations of otter known to reside within this watercourse. The above guidelines for badger will also safeguard otters opportunistically utilising the site for terrestrial habitat.

## **6.8 Bats**

6.8.1 The nearest record of bat returned in the desk study belonged to an unidentified bat species, located 0.46km away from the site. Under the current design, tree felling is to be kept to a minimum, however should this change, a suitably qualified Ecologist should be consulted. Any trees that require felling under the proposed design will require a Preliminary Roost Assessment by a suitably qualified ecologist, with the findings potentially resulting in further bat dusk emergence / dawn re-entry surveys in order to confirm the likely absence of a roost.

6.8.2 If a lighting scheme for the site is required, it should 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](http://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/>

## **6.9 Birds**

6.9.1 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.

## **6.10 Reptiles**

6.10.1 A grass snake was recorded using the site on the day as the survey, and the habitat within the wider survey area presents common species of reptile (slow-worm and common lizard) with foraging opportunities and suitable habitat. Some areas of stone debris were identified throughout the site, as such, it is possible that the site may offer suitable refugia and hibernacula opportunities for reptiles.

6.10.2 It is recommended that additional reptile presence / absence surveys should be undertaken on the site. Such surveys may include visual surveys, or reptile refugia deployment and monitoring, in order to estimate the size of reptile populations within the site. The findings of which will determine the extent to which the habitat on site is used by reptiles, as well as inform appropriate mitigation measures.

6.10.3 Additionally, any management in suitable reptile habitat should take place outside of the active season (March to October inclusive). Should works be required to be undertaken within this period, it is recommended that a Reptile and Amphibian Mitigation Method Statement should be prepared and communicated to any contractors or wardens 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.

## **6.11 Invasive Non-Native Species**

6.11.1 Japanese knotweed and Himalayan Balsam were identified on site, which is listed under Schedule 9, Section 14 of the Wildlife and Countryside Act 1981, as such it is an offence to plant or otherwise cause the species to grow in the wild. Section 14(2) of the Wildlife and Countryside Act 1981 states that if any person plants or otherwise causes to grow in the wild

any plant which is included in Part 2 of Schedule 9, they shall be guilty of an offence, therefore proactive management is required.

6.11.2 An Invasive Species Method Statement should be prepared in order to describe the procedures, timings and mitigation processes in order to avoid the spread of non-native invasive plant species during any development, and safely remove the specimens present.

## 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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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.

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Appendix A. LERC Data Search

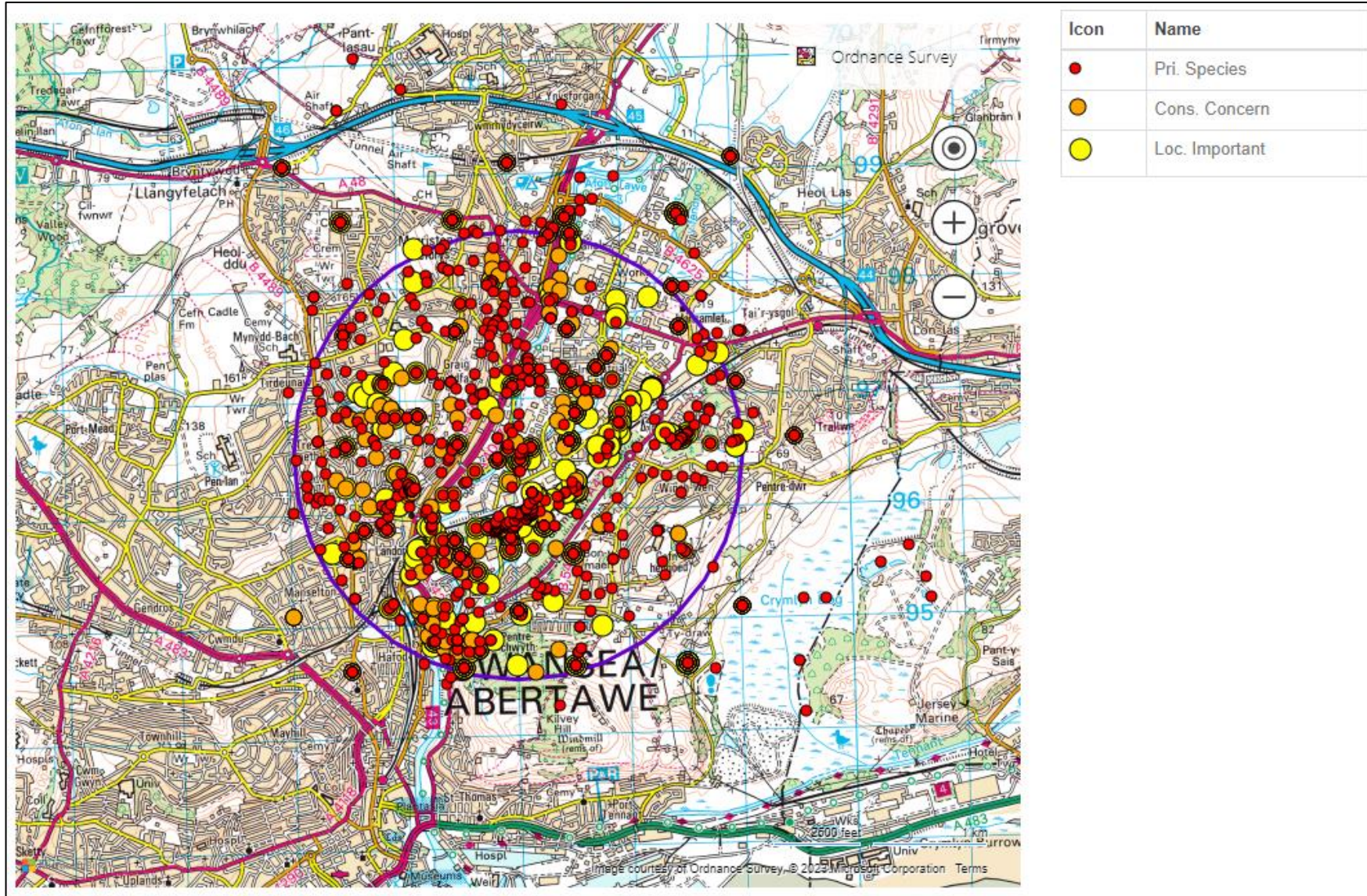


Figure 3. LERC Protected Species Data Search Records

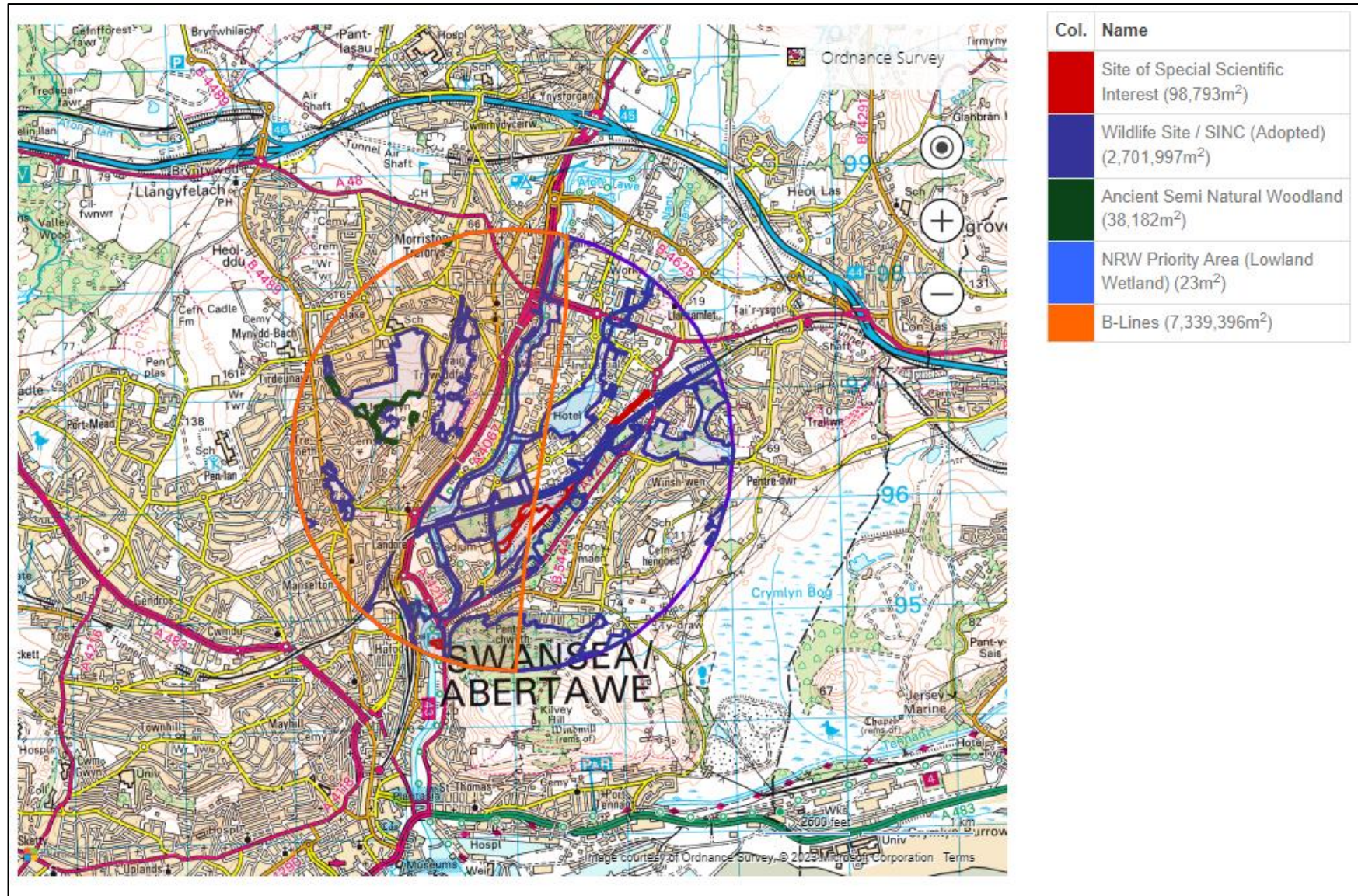


Figure 4.LERC Protected Sites Data Search


Appendix B. Phase One Habitat Plan





## Legend


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
⊙ Target Notes


 A1.1.1 - Broadleaved woodland - semi-natural

 A2.1 - Scrub - dense/continuous

 A2.2 - Scrub - scattered

 B5 - Marsh/marshy grassland

 J1.3 - Cultivated/disturbed land - ephemeral/short perennial

 J4 - Bare ground

## Target Notes

TN1 = Grass snake

TN2 = Japanese Knotweed

TN3 = Japanese Knotweed

TN4 = Himalayan Balsam

TN5 = Potential Reptile Refugia

**Appendix C. Photographs**



Photograph 1. Woodland along western boundary



Photograph 2. Woodland along eastern boundary



Photograph 3. Footpath through woodland



Photograph 4. Japanese knotweed to the north-west of site



Photograph 5. Himalayan balsam along western boundary of site



Photograph 7. Scrub along eastern boundary



Photograph 6. Dense scrub to north of car park



Photograph 8. Scattered scrub throughout the grassland



Photograph 9. Japanese knotweed within the scrub



Photograph 10. Marshy grassland to the south of the grassland area



Photograph 11. Marshy grassland adjacent with inundated substrate



Photograph 12. Marshy grassland



Photograph 13. Purple loosestrife amongst the marshy grassland



Photograph 14. Short perennial / ephemeral vegetation with bare ground



Photograph 15. Grass snake within marshy grassland