

Preliminary Ecological Appraisal

Former Tirbach Washery, Tirbach Road,
Ystalyfera, Neath

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On behalf I&G Ecological Consulting Ltd



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SUMMARY

I & G Ecological Consulting Ltd were commissioned to undertake an updated Preliminary Ecological Appraisal (PEA) of an area of land on the north-eastern edge of Ystalyfera, in the Upper Swansea Valley, Neath known as the former Tirbach Washery (the site).

The site is subject to a planning application for the proposed development of **RESIDENTIAL DWELLINGS AND ASSOCIATED ACCESS, PARKING AND INFRASTRUCTURE**.

A PEA was originally undertaken in 2019 of a larger area of land. This updated PEA covers a smaller area centrally within the site, consisting of a desk study and an extended Phase 1 Habitat Survey conducted in July 2026. The PEA was undertaken to determine the ecological baseline of the site, as well as to identify any ecological constraints necessary for informing a future application for Planning Permission in relation to the proposed development at the site.

The site predominantly consists of an area of previously developed land supporting grassland and scrub habitats within and around tarmac and gravel areas.

The proposed development may negatively affect the following designated sites, habitats, and protected or priority species:

- Trees
- Scrub
- Ephemeral/short perennial
- Grassland
- Bats (foraging and commuting)
- Birds
- Hedgehog
- Invertebrates
- Reptiles

The following mitigation will need to be implemented during the construction and operation of the proposed development:

- A full habitat compensation scheme for habitat lost including scrub, grassland and trees
- A Sensitive Lighting Scheme during construction and operation to minimise disturbance to nocturnal species that may be using the site and surrounding area, including badger, bats, otter and hedgehog
- General precautionary working methods during construction
- Production and implementation of a Biodiversity Enhancement Scheme to ensure compliance with the Section 6 Duty of the Environment Act (Wales) 2016
- Permanent root protection zone for all retained trees

The following surveys are required to make a full assessment of the site and to determine its potential to support protected habitats and species:

- None

1. INTRODUCTION

1.1 Background

1.1.1 I & G Ecological Consulting Ltd were commissioned by the client to undertake a Preliminary Ecological Appraisal (PEA) of an area of land at LAND AT TIRBACH WASHERY, YSTALYFERA, NEATH (the site), centrally located at OS Grid Reference: SN 77139 09401. This report presents the findings of both a Phase 1 Habitat Survey and desk study undertaken in July/Aug 2026.

1.1.2 The purpose of this report is to provide sufficient information for the Local Planning Authority to assess the ecological impact of the proposed development in its entirety, and to identify whether further information is required before a full assessment can be formed. 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

1.2.1 The overall site, approximately 2.9 hectares in size, consisting mainly of scrub, ephemeral /short perennial, small areas of grassland but predominantly bare ground. See Fig.1 below for location of site and approximate site boundary.

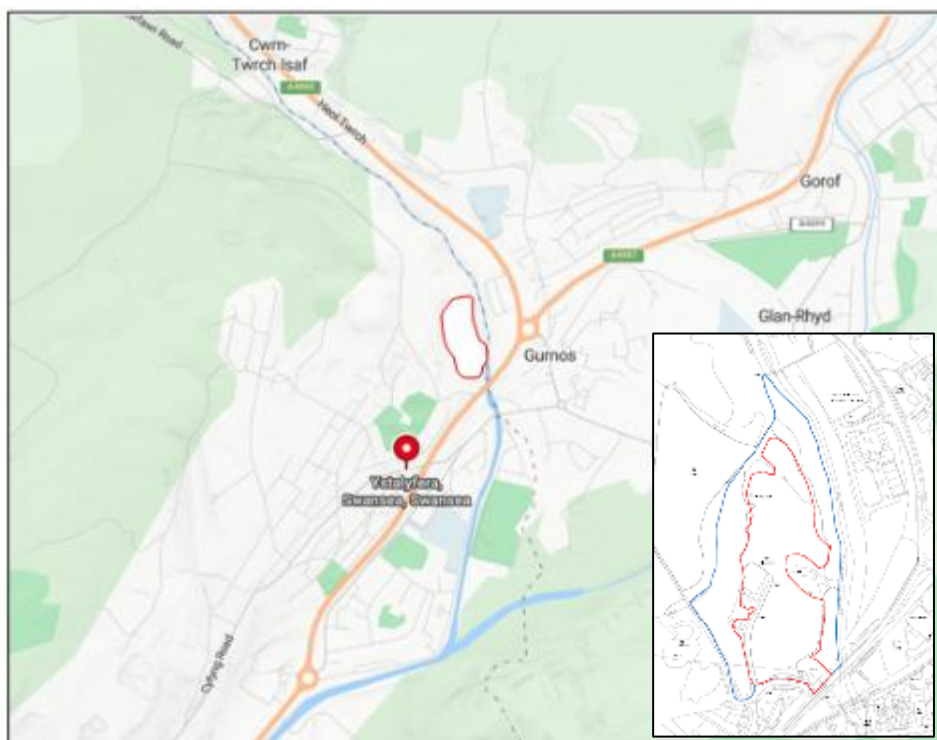


Figure 1. Site location (from Apple® Maps), Site Location Plan inset.

1.3 Proposed Development

- 1.3.1 The plans for the proposed development indicate the development of up to 104 residential dwellings/units, with vehicular access, parking and associated infrastructure.

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 12 of Planning Policy Wales (PPW) (Welsh Government, 2024) 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 12 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.

1.5 Relevant Local Planning Policy

- 1.5.1 The current Neath Port Talbot Local Development Plan (LDP 2011-2026) is the development plan for Neath Port Talbot County Borough Council and was adopted in January 2016. It provides the legal framework for the development and use of land within the County. The Plan comprises text and maps, and together with national planning policy will guide decisions on planning applications.
- 1.5.2 The Neath Port Talbot Local Development Plan contains the following policies regarding biodiversity: Policy EN6 Important Biodiversity and Geodiversity Sites and EN7 Important Natural Features.
- 1.5.3 The relevant Supplementary Planning Guidance is found at SPG Biodiversity and Geodiversity.
- 1.5.4 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)’.

2. METHODOLOGY

2.1 Desk Study

- 2.1.1 A desk study was conducted on 06/08/2026/ with the purpose of determining any existing ecological information pertaining to the site and surrounding environment relevant to the proposed development. The sources utilised and the type of information obtained are summarised in Table 1.

Table 1. Sources of ecological records.

Source	Information and data sets	Search buffer from the site centre/boundary
SEWBRcC/Aderyn	- Protected and priority species. - Non-statutory designated sites.	2km 2km
Multi-Agency Geographic Information for the Countryside (MAGIC)/Aerial images	Standing waterbodies.	0.25km

2.1.2 The search buffers within Table 1 were chosen to cover the Zone of Influence (Zol) of the proposed development in relation to protected and priority species, habitats, and designated sites.

2.1.3 The impact the proposed development may have on the biological features of nearby designated protected sites has been fully considered.

2.1.4 A search for standing waterbodies within 0.25km of the site using aerial imagery has been undertaken to assess the likelihood of potential site use by Great Crested Newt in accordance with the Great Crested Newt Conservation Handbook (Langton et al., 2001).

2.2 Field Survey (Phase 1 Habitat Survey)

2.2.1 A Phase 1 Habitat Survey was conducted by a suitably qualified ecologist at 11.00 on 17/07/2026, 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, and visual surveys were used to search for signs that such species are using the site.

2.2.2 Signs of site use by protected species 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, resting 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.

2.2.3 The presence of 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*). Additionally, species which are not listed under Schedule 9, Section 14, but are known to be invasive to ecosystems in the United Kingdom were also noted and mapped during the site survey.

2.3 Survey Limitations

- 2.3.1 A species may be perceived to be absent within the surrounding area due to a lack of records returned during the desk study. However, a lack of records does not necessarily indicate a species is absent from the area and may be a result of a combination of multiple factors. These factors include, but are not limited to, a lack of surveying within the search buffer area, recent colonisation of a new area, low population density, and how cryptic the species in question may be.
- 2.3.2 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.
- 2.3.3 The field survey was undertaken within the main flowering season for plant species (May to August), however it was within a prolonged dry spell (drought conditions) and therefore the survey took place during sub-optimal conditions for plant identification, particularly for the identification of grass and herbaceous perennial species.

3. RESULTS

3.1 Desk Study

Connectivity to the surrounding landscape

- 3.1.1 The site is connected to scrub and woodland habitat immediately to the north, east and west, with the steeply sloping wooded riparian corridor of the Afon Twrch beyond the eastern boundary. The site is situated close to the main road (A4067) which is an arterial route through the Swansea valley, however the site is connected to areas of previously development land, woodland and grassland habitats to the north and west.



Figure 2. Aerial image of the landscape surrounding the site with the approximate site boundary shown in red. (from Apple® Maps).

Previous ecological surveys

- 3.1.2 The site is not within any nationally designated areas and as such is not likely to have undergone associated ecological surveys. However, according to records it is an adopted SINC for Neath Port Talbot CBC, and has undergone survey against the adopted SINC Criteria in 2017. Additionally, the site has undergone a PEA in 2019, a Reptile survey in 2020, Lower Plants survey 2024 and an Invertebrate survey in 2023.

Designated sites (statutory)

- 3.1.3 There are no national or international statutory designations within 2km of the site. Table 2 on the following page summarises information relating to each statutory designated site within the search buffer area.

Designated sites (non-statutory)

- 3.1.4 There are 42 non-statutory designations within 2km of the site. Table 2 on the following page summarises information relating to each non-statutory designated site within the search buffer area.

Table 2. Summary of designated sites within the search buffer area.

Site name	Designation/Category	Distance and connectivity to site
Glan Yr Afon	SINC	Designated for its OMPDL - 1342m south west of site. Loosely connected by woodland corridors and upland grassland
Caeau Ynysgeinon	SINC	This SINC site is approximately 1332m south of site and is located immediately south of the River Tawe and separated from site by the A4067
Watercourse SINC	SINC	River Twrch is east of the site, connected directly by scrub and woodland edge of the site. River Tawe is 900m south from the site periphery immediately south of the Ffordd Cwm Tawe Road, which separates the site and the river
Pentwyn Grasslands	SINC (Powys County Council)	853m north of site, loosely connected by woodland and scrub, but lies on the north of the main road through Cwm-twrch with housing and minor roads between
Cae Lynden	Wildlife Trust Reserves	762m north east of site, connects as above.
Wern Plemys	Wildlife Trust Reserves	1423m to the East of the site separated by River Tawe and conurbations of Ystradgynlais
Ystradfawr	Wildlife Trust Reserves	1965m east of site, with only a very small part of the Reserve being within the search buffer. Separated from the site by 2 major rivers, main roads and the town of Ystradgynlais.
41 ANSW sites	ASNW Priority Area	Extensive areas of woodland south of site but largely disconnected due to urban settlements, rivers and main roads, however smaller areas of woodland north of the site are directly connected as the woodlands are part of the Afon Twrch riparian corridor.
9 RAWS sites	RAWS Priority Area	The closest site is immediately to the south west of the site connected by scrub and woodland edge. All remaining RAWS are not connected due to main roads, watercourses and urban settlements.
1 PAWS sites	PAWS Priority Area	A very small area of woodland 750m north west of site connected via scrub and woodland on site.

1 Ancient Woodland Sites of Unknown Category	Priority Area	A small woodland 1.9km south of site, separated by main roads, rivers and the town of Ystalyfera.
1 NRW Priority Areas (Woodland – PAWS)	Priority Area	As PAWS site above.
NRW priority Area (Heathland & grassland)	Priority Area	Large areas of grassland to the north and east/south east of the site, beyond the conurbation of Ystradgynlais.
B-Lines	Local non-statutory	An extensive area in the north east of the search zone immediately adjacent to the north of the site

Relevant key findings on designations

- 3.1.5 The proposed development site immediately adjacent to small areas of PAWS/RAWS and is connected to woodland which is part of the Afon Twrch riparian corridor which supports multiple areas of ASNW, connecting to the site along the western side of the river.
- 3.1.6 The next closest designated site is the NPT Watercourses SINC which covers a number of major and tributary watercourses within the search area. The River Twrch lies downslope approximately 30m east of the site connected by woodland and scrub.

Habitat Regulations Assessment (HRA) Screening Requirement

- 3.1.7 No international statutory designations are located within the 2km search buffer area of the desk study.
- 3.1.8 There are no other Special Areas of Conservation (SAC), Special Protection Areas (SPA), or Ramsar wetlands of international importance that may be within the Zone of Influence (Zoi) of the proposed development.

Light pollution

- 3.1.9 The site is located within a small rural valley town area and has a low level of light pollution (see Figure 3 below for site radiance level).

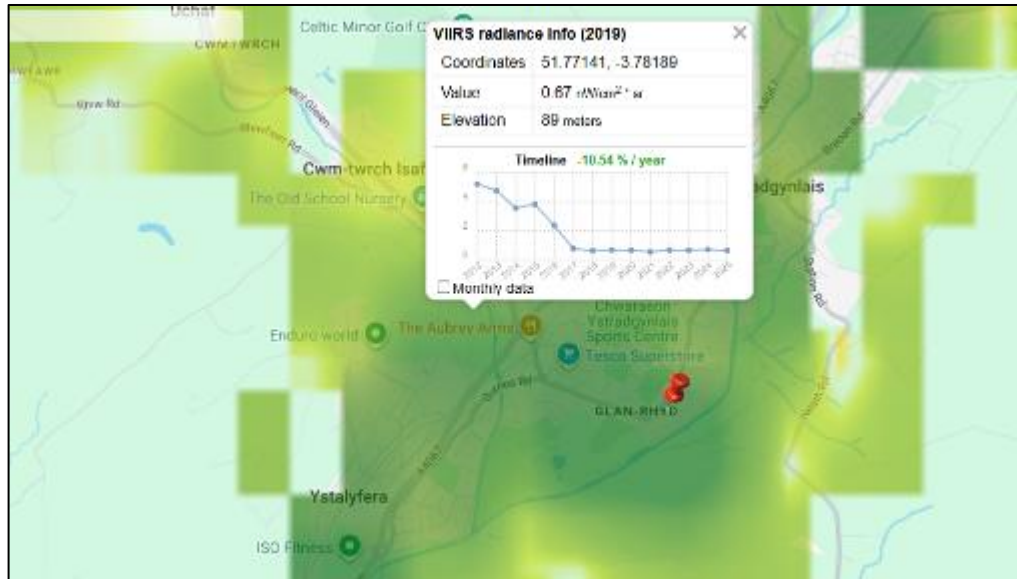


Figure 3. Radiance level at the site (VIIRS Data Base (2023), accessed 03/08/2026, available at <https://www.lightpollutionmap.info>).

Priority and protected species

- 3.1.10 A summary of priority and protected species records found within 2km of the candidate site can be found in Table 3 on page 14.

Table 3. Priority and Protected species records within 2km of the candidate site.

Priority and protected		Number of records (number of species)
Groups	Species	
Bats	Soprano Pipistrelle	14
	Common Pipistrelle	15
	Brown Long Eared	14
	Daubenton's	1
	Noctule	
Other Mammals		
	Harvest Mouse	1
	Water Vole	1 (v.old)
	Weasel	1
	Badger	2
	Hedgehog	49
	Otter	93
Reptiles	Common lizard	2
	Grass snake	6
	Slow worm	3
Amphibians	Great Crested Newt	0
	Other amphibians	5 (2)
Birds	Schedule 1/Section 7	>500 entries
Fish	Category 1	28 (3)
Invertebrates	Marsh fritillary	40
	Other invertebrates (Category 1)	46 (11)
Plants	Category 1	20 (3)

Key records

3.1.11 There are no records for Hazel Dormouse. This European Protected Species (EPS) thrives in woodland, scrub and hedgerow habitats particularly where Bramble, Hazel, Honeysuckle are dominant, and canopies are continuous.

3.1.12 There are 40 records of Marsh Fritillary within 1km of the site. This European Protected Species (EPS) is associated with a range of species-rich grassland habitat types and relies heavily on the presence of the food plant devil's-bit scabious.

3.1.13 The closest record is for Barn Owl at 325m, and there are numerous records of bird species at 373m from site centre, most relevant including House Sparrow, Wood Warbler, Starling Rook and Magpie, while a little further at 424m are Dunnock, Greenfinch, Goldcrest, Willow warbler, Chaffinch and Grey Wagtail; all species which are considered likely to use the site.

3.1.14 There are 93 records of Otter within 2km of the site, with records at 137m from site centre. This species is sensitive to noise and light pollution and occur within the Afon Tawe corridor adjacent to the site.

3.1.15 Bat species recorded at 535m include Brown Long-eared, Daubenton's, Common Pipistrelle and Noctule. The closest species being Soprano Pipistrelle at 410m (14 records).

3.2 Field Survey

Timing and weather

3.2.1 The timing of the field survey and the prevailing weather conditions are summarised in Table 4.

Table 4. A summary of weather conditions during the field survey.

Date	Prevailing weather conditions			
	Temperature	Wind speed	Cloud cover	Weather
13/07/26	27°C	5mph	5%	sunny, within a long period of hot dry weather

Habitats on site

3.2.2 The following Phase 1 habitat types were present at the site, or within the zone of influence:

- **Dense Scrub (including Introduced shrub)**
- **Bare ground**
- **Open Mosaic on Previously Developed Land (OMPDL)**
- **Buildings**

- 3.2.3 Descriptions of the habitats present on site using Phase 1 survey habitat classification can be found in Table 5.
- 3.2.4 The extended Phase 1 habitat plan in Appendix I illustrates the distribution and extent of the habitats present on site, in addition to the location of each Target Note. Furthermore, a full species list (including scientific names) can be found in Appendix III.

Table 5. Habitats and linear features on site

Habitat / Linear feature	Species present
Dense scrub Location and extent: throughout the site in mosaic with Ephemeral/short perennial and Grassland. Total area mapped as 17,242m ²	Tree species: Willow spp., Alder, Silver birch, European Gorse, Hawthorn, Wych Elm, INNS (Cotoneaster spp and Buddleia)
OMPDL – Ephemeral/short perennial & Neutral Grassland Location and extent: over much of the site, growing over stoney substrate and where soils are thin, with grassland on more developed soils	Species: Creeping Cinquefoil, Colt's-foot, Common Ragwort, Common Centaury, Willow Herb spp., Common Fleabane, Evening Primrose, Baren strawberry (see full list at APPX 3)
Bare Ground Location and extent: areas of concrete roadway, slag material forming bunds, bare earth tracks (approximately 7252m ²)	Very occasional patches of ephemeral species (too small to map) No further discussion
Remnant OMPDL Location and extent: mostly in the east of the site where vegetation has formed over thin soils, total area for grassland and ephemeral vegetation (large enough to map) is approximately 6211m ²	Species: Common centaury, St John's-wort spp., Selfheal, Hawkbit, Lesser-bird's-foot trefoil, Ribwort Plantain, Colt's-foot and Willowherb species
INNS Location and extent: throughout the site, with JK being more prominent in the south west corner and HB more evident towards the north east of the site. Buddleia is throughout much of the scrub areas	Species: Buddleia davidii, Cotoneaster horizontalis, Japanese Knotweed, Himalayan Balsam, Stinking Tutsan

Buildings Disused buildings of various structure (90m2)	None
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Habitat descriptions

3.2.5 **Scrub:** Forms the most visually dominant habitat, in both discrete patches and continuous areas, or contiguous with boundary woodland. Areas of native scrub are comprised of Willow species and Alder, together with silver birch and occasionally Hawthorn, while other stands are dominated by introduced shrub species, particularly Butterfly Bush. The scrub has continued to develop since the last PEA, with much of the former very young stands now being early mature. NB. Although scrub would be considered an intrinsic element of OMPDL, here it has been discussed/mapped separately.

3.2.6 **OMPDL to include Ephemeral/short perennial, Neutral grassland, areas of wetter influence:** The areas where the soils are thin, including stoney substrate supports typical ephemeral/short perennial species such as Selfheal, Hawkbit, Lesser-bird's-foot trefoil, Ribwort Plantain, Colt's-foot and Willowherb species. A good variety of species which will support a range of invertebrates, including pollinators. The more established vegetation where soils are deeper supports grassland species including Common Knapweed, Creeping buttercup, Wild parsnip, Common Fleabane, Hemp Agrimony. Stands of Hard Rush with occasional Sharp-flowered rush, Purple Loosestrife and Reedmace are indicative of ephemeral wet areas, although at the time of survey the site was evidently very dry, as small areas of standing water which had been observed during previous surveys were completely dry and much of the vegetation (other than trees/scrub) was dying off.

3.3 Protected and priority species on site

3.3.1 The confirmed presence, or likelihood of presence, of each protected, priority, and notable species that are considered relevant to the site is discussed below. Species that are not considered relevant to the proposed development at the site have been omitted.

Amphibians

3.3.2 No incidental evidence of amphibians was identified during the site survey.

3.3.3 The scrub and taller grassland habitats on site are likely to have provided suitable foraging and commuting habitat for terrestrial phase amphibians. There are several small areas of standing water which were dry at the time of survey, but vegetation suggests they hold water for much of the year under normal precipitation levels. The previous PEA recorded

that a large pond was located in an area now outside of the red line boundary, but this was in-filled around the time of and noted within the Reptile Survey. Such features will provide breeding sites, though the shallow nature is not optimal. Buildings and discarded materials such may provide shelter and hibernation opportunities.

Badger

- 3.3.4 No evidence of badger (including setts, well-worn paths, latrines, or tracks) was found on site or within 30m of the site boundary.
- 3.3.5 The site is well connected to multiple large areas of open hillside, scrub and woodland located within 1km of the site by a network of scrub patches and riparian corridor.
- 3.3.6 The grassland on site is limited and likely sub-optimal for badger foraging however, the scrub and wooded riparian corridors offer covered commuting, and the dense scrub is suitable for sett creation.

Bats

- 3.3.7 No incidental evidence of bats (including droppings, staining, or smells) was found on site. The mix of habitats on site will host good amounts of invertebrates, and so the foraging opportunity for bats is likely to be optimal.
- 3.3.8 No features on site were assessed to be suitable for roosting bats.
- 3.3.9 The site has a low level of light pollution, therefore unlikely to reduce site suitability for particularly light-averse species. Additionally, the peripheral scrub and woodland beyond the site boundary is likely provide suitable commuting and foraging habitat for local bat populations.

Birds

- 3.3.10 Several species were found to be present on site at the time of survey, including Goldfinch, Bluetit, Blackbird and Song thrush.
- 3.3.11 The on-site and peripheral trees and scrub provide ample nesting opportunity to arboreal nesting species, and the open short sward is suitable for ground nesting birds. The mosaic of habitats provides extensive nesting and foraging for a wide variety of bird species associated with grassland, scrub and woodland. The buildings will provide cover and nesting for small birds such as Wren, Robin and Bluetit.
- 3.3.12 There are several fruiting species throughout the site, including bramble, Oak and Hazel, within the scrub and woodland edge habitats, which are likely to provide foraging resources

to a variety of bird species. There are numerous foraging opportunities for seed-eaters provided by plants such as thistles, dandelions and willowherbs.

- 3.3.13 The mosaic of habitats within the survey area provides resources for a variety of invertebrate species, which in turn provides foraging opportunities for insectivorous bird species.

Hedgehog

- 3.3.14 The current mosaic habitat on site will provide limited forage but plenty of dense vegetation for covered commuting both on and off site. In addition, there is a range of suitable habitat in the surrounding landscape including gardens and larger expanses of grassland.

Invertebrates

- 3.3.15 The habitats on site are suitable for invertebrates, there being a mix of substrates, vegetation types and densities. The invertebrate study undertaken in 2023 found that the development site supports 226 invertebrate species, of which **20 species are of conservation importance** (at the time of the survey). The survey was conducted over a shorter period than would have been ideal, and so not all species are likely to have been picked up, particularly those more prevalent in Spring months.

- 3.3.16 The range of invertebrates found on the site will support numerous species including reptiles, small omnivorous mammals such as rodents, as well as bats and birds.

Otter

- 3.3.17 No incidental evidence of otter was identified during the site survey. However, there are a large number of records within 1km (the closest being at Afon Twrch adjacent to site). However, the river is at the bottom of a steep sided valley, with plenty of vegetation for covered commuting, therefore it is considered less likely that otter would have a need to commute or rest up within the site itself.

Reptiles

- 3.3.18 No incidental evidence of reptiles was identified during the site survey.
- 3.3.19 The grassland, scrub, ephemeral vegetation and bare ground on site will have offer a beneficial mix of open basking areas and sheltered foraging habitat for reptile species. However, extent of grassland for foraging is limited, although plenty of open areas for basking exist. A reptile survey undertaken in 2020 did not find any reptiles to be using the site.

4. SITE ASSESSMENT

4.1 Ecological Value and Impact Level Criteria

4.1.1 The value of habitats and ecological features at the site is assigned according to their level of importance using the following terminology:

- International value
- National value
- Regional value
- County value
- District value
- Local value
- Site value
- Negligible value

4.1.2 The criteria used to assess the predicted impact level of the development to each ecological receptor relevant to the proposed development is found in Table 6 below.

Table 6. Impact level criteria

Severity of Impact	Impacts to Ecological Feature
Severe	Extensive irreversible damage or permanent loss of feature.
Major	Extensive loss of feature and/or quality and integrity of key characteristics; major long-term disruption and/or permanent damage to key ecological processes.
Moderate	Partial but significant loss of feature but does not adversely affect the integrity and ecological function of the feature; significant and noticeable changes to the attributes, quality, or vulnerability of the feature.
Minor	Minor measurable changes in attributes, quality or vulnerability; minor loss of, or alteration to one (or more) key characteristics, features or elements.
Negligible	Very minor loss or detrimental alteration to one or more characteristics, features or elements.
Neutral	No detectable impacts.

4.2 Overview of Development Impacts

4.2.1 The proposed development will result in the removal and/or disturbance to habitat features and their associated species. An overview of the potential effects resulting from the proposed development are as follows:

- Disturbance and loss of Open Mosaic on Previously Developed Land
- The potential for an increase in light/noise pollution both during and post development
- The potential for sediments/pollutants to run into the Afon Twrch (which then runs into Afon Tawe)

4.3 Impacts to Designated Sites

4.3.1 There are no International Statutory designated sites, no statutory designated sites, 55 Priority areas and 11 non-statutory designated sites located within the search buffer area of the desk study.

Given the scale and proximity of the proposed development, it is considered that the majority of NRW Priority Areas will not be adversely affected, however the woodlands adjacent to the site will be potentially subject to pressures typically associated with large housing developments (e.g. spread of INNS through dumping garden waste, domestic pets). Development may give rise to pollution of nearby watercourses.

The site **qualifies as a SINC based on the invertebrates** recorded in the Invertebrate Survey aforementioned, and this **biodiversity asset will be lost**.

4.4 Impacts to Habitats and Features

4.4.1 The following habitat/features were identified on site and the impact of the proposed development to these habitats/features is discussed below:

- OMPDL – to include scrub, bare ground, ephemeral/short perennial & grassland

OMPDL

4.4.1 The current habitat on site displays moderate species diversity. Where vegetation is more established, it contains a reasonable coverage of herb species which provides foraging opportunities to invertebrates, particularly pollinator species. In addition, the habitats may be used as a 'stepping-stone' for pollinator species between further species-rich grassland in the surrounding landscape (with B-lines designated areas immediately adjacent to site). Furthermore, the grassland may offer suitable foraging and basking habitat for reptiles, ephemeral water for amphibian breeding, covered habitat for land phase amphibians, nesting and foraging habitat for birds and foraging habitat for badger and hedgehog. Bats may forage on invertebrate populations which reside within this habitat. The current habitat has been assessed to have **at least county value, and would qualify as a SINC due**

to the presence of invertebrate species of Conservation Value. Additionally, as the presence of a diverse mix of flowering species and substrates is particularly good for local invertebrate populations this benefits all those species who rely on them as a food source.

- 4.4.2 Under the current proposed design, loss or damage to this habitat may be **major-severe** without mitigation as the current plan for the proposed development shows the majority of this habitat will be lost, or degraded.

4.5 Impacts to Species

- 4.5.1 The following protected or priority species were identified as present, likely present, or unconfirmed at or within the vicinity of the site:
- Amphibians
 - Badger
 - Bats
 - Birds
 - Hedgehog
 - Invertebrates
 - Otter
 - Reptiles
- 4.5.2 The predicted impact of the proposed development without mitigation to protected or priority species relevant to the site is summarised in Table 7 below.

Table 7. Impacts of the proposed development to relevant priority and protected species.

Protected or priority species	Impacts of proposed development without mitigation
Amphibians	Loss or reduction of OMPDL habitat including ponds and other standing water bodies, together with removal of buildings and debris is likely to result in adverse impacts to amphibian populations at the site.
Badger	Insensitive artificial lighting schemes both during and after construction, as well as noise pollution during construction, and loss or reduction of grassland, scrub and ephemeral habitats at the site may result in adverse impacts to foraging and commuting badger.
Bats	Loss or reduction of OMPDL habitats may result in adverse impacts to foraging bats. Furthermore, should the site and surrounding area be subject to increased light pollution, there may be a reduction in habitat connectivity for light averse species and therefore in foraging and commuting habitat. The proposed development without mitigation is therefore likely to result in adverse impacts to bats using the site.
Birds	Loss or reduction of OMPDL habitat may result in adverse impacts to nesting and foraging birds. Furthermore, a permanent increase in human activity on site may discourage more timid bird species from using the site.
Hedgehog	Loss or reduction of OMPDL at the site, insensitive artificial lighting schemes both during and after construction, and noise pollution during and post construction, may result in adverse impacts to hedgehog using the site and adjacent habitats.
Invertebrates	Loss or reduction of OMPDL habitat is likely to result in adverse impacts to invertebrate populations at the site, 20 species known to be of Conservation Importance.
Otter	Insensitive artificial lighting schemes both during and after construction, as well as noise pollution during construction, and loss or reduction of dense habitats at the site may result in adverse impacts to commuting Otter.
Reptiles	Loss or reduction of OMPDL, along with loss of suitable hibernation features, may result in adverse impacts to common reptile species.

4.6 Impacts to Ecosystem Resilience

- 4.6.1 Area loss can cause populations of organisms to decline due to a decrease in habitat size. The habitats present on site are also found in the surrounding landscape, and therefore, if the proposed development is to be undertaken without any mitigation, the impact on ecosystem resilience is anticipated to be **moderate**. With regard to the important invertebrates recorded on the site, the Invertebrate Survey report concluded that the remaining habitats (west of the development site) do not support the same range of species, and those most of conservation interest were only found on the development site. **Therefore, loss of this OMPDL habitat will mean impact ecosystem resilience for these**

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.

5. CONCLUSIONS AND RECCOMENDATIONS

5.1 Site Overview

- 5.1.1 The combination of desk and field surveys undertaken at the proposed development site identified that the site has a **county value** ecologically. The dominant habitat of OMPDL is of **County value and the site will qualify as a SINC based on the invertebrate populations.**
- 5.1.3 Recommendations necessary for the informing of the design process are provided below, as well as recommendations for biodiversity mitigation and enhancement to fulfil the Biodiversity and Resilience of the Ecosystems Duty (Section 6 Duty) of the Environment Act (Wales) 2016.

5.2 Mitigation Measures During Development Construction

- 5.2.1 All works are to be undertaken during the day, and any artificial lighting will be kept to a minimum during construction to minimise disturbance to nocturnal species which may be foraging in the surrounding area, including bats, badger, dormouse, otter, and hedgehog.
- 5.2.2 Precautionary working methods are recommended during construction to minimise the risk of harm to bats, badger, reptiles, amphibians, otter, hedgehog, and invertebrates. These may enter the site for a variety of reasons, such as foraging in new territory and fleeing predation, and may therefore be at risk during construction. Precautionary working methods include:
- Preventing and protecting mammals 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. Ramp-like structures should be installed to allow any animals that may become trapped to leave the groundworks.
 - If possible, access routes and machines should be chosen with the minimisation of sediment run-off as a priority.
- 5.2.3 All vegetation clearance required to fulfil the proposed design should be undertaken from September to February to avoid bird nesting season. If these works are to be undertaken during nesting season (March to August), a nesting bird check by a suitably qualified ecologist will be required within 24 hours of the commencement of the works. If any nests are identified, a 5m buffer zone will be measured around the nest, all work will stop in that area, and it will be left undisturbed until the nest is complete.

- 5.2.4 Should it be necessary to remove any scrub/trees, this must be done under the guidance of an EcoW. The LPA may require a separate **Reptile Mitigation Method Statement** to include sensitive clearance strategy to ensure no Reptiles are harmed.
- 5.2.5 A comprehensive INNS management and eradication scheme must be agreed and implemented prior to any work on site, including preparatory ground investigations.

5.3 Mitigation Measures During Development Operation

- 5.3.1 A separate Biodiversity Enhancement Scheme (BES) is recommended to fully detail appropriate mitigation, compensation, and enhancement measures required for the proposed development to comply with Section 6 Duty of the Environment Act (Wales) 2016. The mitigation, compensation, and enhancement measures required to achieve this will be dependent on the scope of the proposed development and the results of the additional surveys listed in Section 5.4. The loss of OMPDL and its composite habitat components will require mitigation which will need to be incorporated into Site design. **Due to the extent and severity of loss (SINC qualifying habitat), off-site mitigation may be required.**
- 5.3.2 The current lighting scheme for the development in its future operation is currently unknown. However, any exterior lighting on site should be kept to a minimum and be subject to a sensitive lighting strategy with input from a suitably qualified ecologist. This will reduce disturbance to nocturnal species using the surrounding area, including bats, badger, dormouse, and hedgehog. The details of the sensitive lighting strategy will be dependent on the scope of the proposed development.
- 5.3.3 A Construction Ecological Management plan would ensure that there are protective measures in place to prevent damage to habitats on site, including reducing the risk of sediment/chemical pollution of watercourses on and off site.

5.4 Further Surveys

- 5.4.1 It recommended that an Amphibian and Reptile Survey be undertaken, to include sensitive site clearance methods and details of habitat mitigation and enhancement.

6. WILDLIFE LEGISLATION

6.1 Otters and the Law

6.1.1 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.

6.1.2 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*

6.1.3 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.

6.1.4 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

6.2 Bats and the Law

6.2.1 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.

6.2.2 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.

6.3 Hazel Dormouse and the Law

6.3.1 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.

6.3.2 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*

6.3.3 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.

6.3.4 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

6.4 Reptiles and the Law

6.4.1 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).

6.4.2 All native UK reptiles are considered of 'principal 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.

6.4.3 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.

6.5 Amphibians and the Law

6.5.1 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).

6.5.2 The common toad is considered of 'principal 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.

- 6.5.3 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.

6.6 Birds and the Law

- 6.6.1 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.

- 6.6.2 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.

6.7 Badgers and the Law

- 6.7.1 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.

6.8 Water Voles and the Law

- 6.8.1 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)).

6.9 Environment Act (Wales) 2016

6.9.1 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.

6.9.2 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.

6.9.3 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.

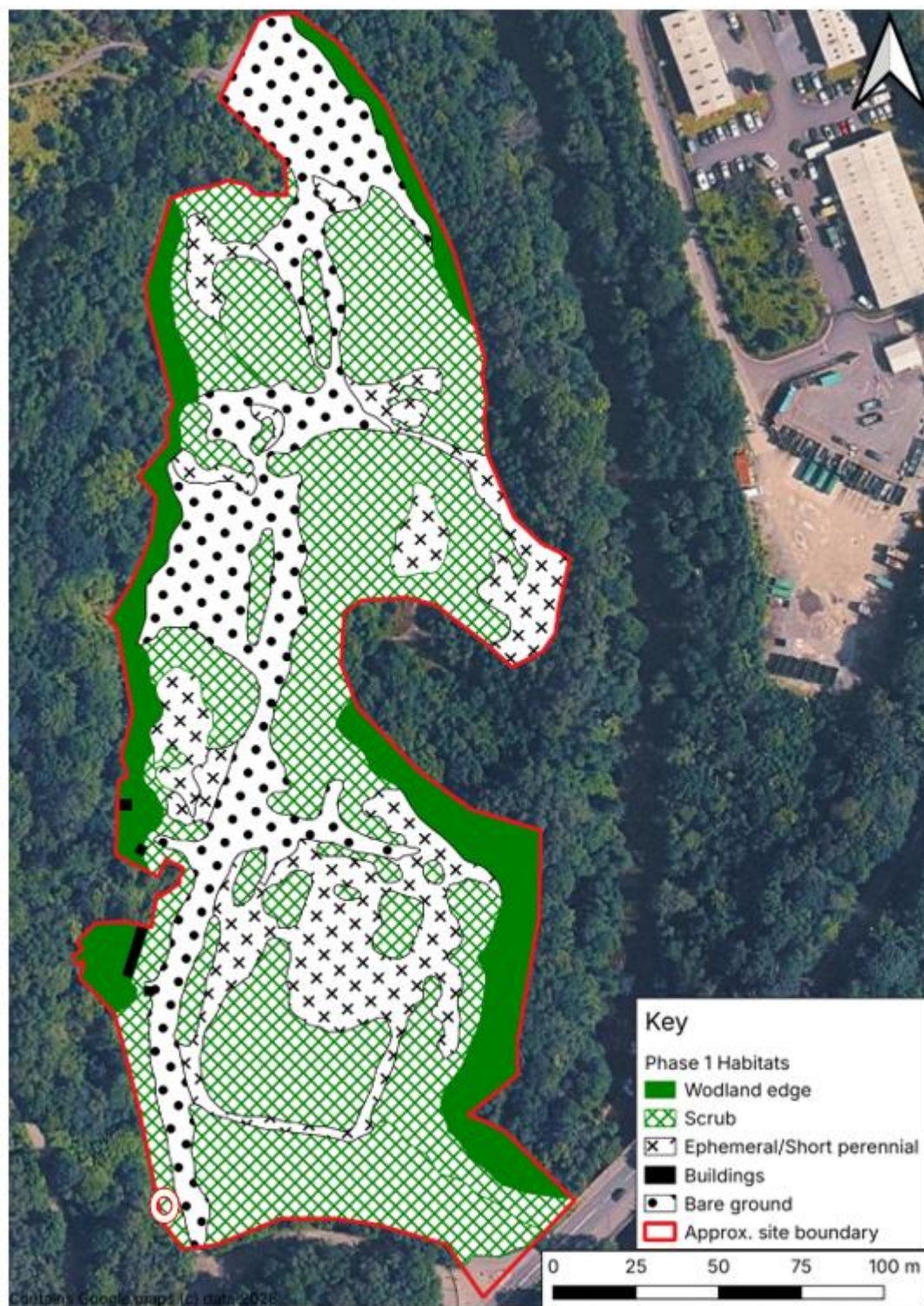
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APPENDIX I: EXTENDED PHASE 1 HABITAT PLAN



⊙ Target Note: Japanese Knotweed stand

APPENDIX II: SURVEY PHOTOGRAPHS

Below: Dried up ephemeral pools with emergent vegetation and stands of rush



Below: More established grassland with patches of scrub and ephemerals to margins, typical across the site



Below: Dense and more mature scrub, with bare ground (earth), dense scrub along access track



Below: Invasive and non-native species – Butterfly bush, Himalayan balsam, Cotoneaster, Stinking Tutsan



APPENDIX III: FULL SPECIES LIST

OMPDL (Grassland, Ephemeral/short perennial)

Common name	Scientific name
Autumn hawkbit	<i>Leontodon autumnalis</i>
Barren Strawberry	<i>Potentilla sterilis</i>
Broad leaved dock	<i>Rumex obtusifolius</i>
Broad leaved willowherb	<i>Epilobium montanum</i>
Broadleaf plantain	<i>Plantago major</i>
Colt's-foot	<i>Tussilago farfara</i>
Common Centaury	<i>Centaureum erythraea</i>
Common figwort	<i>Scrophularia nodosa</i>
Common fleabane	<i>Pulicaria dysenterica</i>
Common Hogweed	<i>Heracleum sphondylium</i>
Common Knapweed	<i>Centaurea nigra</i>
Common mouse ear	<i>Cerastium fontanum</i>
Common Ragwort	<i>Jacobaea vulgaris</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Creeping Cinquefoil	<i>Potentilla reptans</i>
Creeping thistle	<i>Cirsium arvense</i>
Dandelion	<i>Taraxacum officinale</i>
European Gorse	<i>Ulex europaeus</i>
Evening primrose	<i>Oenothera biennis</i>
Foxglove	<i>Digitalis purpurea</i>
Germander Speedwell	<i>Veronica chamaedrys</i>
Hard rush	<i>Juncus inflexus</i>
Hemp Agrimony	<i>Eupatorium cannabinum</i>
Hogweed	<i>Heracleum sphondylium</i>
Ivy	<i>Hedera helix</i>
Lesser bird's-foot trefoil	<i>Lotus corniculatus</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Mouse-ear chickweed	<i>Cerastium fontanum</i>
Perforate St. John's-wort	<i>Hypericum perforatum</i>
Purple loosestrife	<i>Lythrum salicaria</i>
Remote sedge	<i>Carex remota</i>
Ribwort Plantain	<i>Plantago lanceolata</i>
Round-leaved Cranesbill	<i>Geranium rotundifolium</i>
Scentless mayweed	<i>Tripleurospermum inodorum</i>

Selfheal	<i>Prunella vulgaris</i>
Sharp-flowered rush	<i>Juncus acutiflorus</i>
Silverweed	<i>Potentilla anserina</i>
Smooth hawksbeard	<i>Crepis capillaris</i>
Soft rush	<i>Juncus effusus</i>
Spear Thistle	<i>Cirsium vulgare</i>
Spring turf-moss	<i>Rhytidiadelphus squarrosus</i>
St. John's wort sp.	<i>Hypericum sp.</i>
Toad rush	<i>Juncus bufonius</i>
Water mint	<i>Mentha aquatica</i>
White Clover	<i>Trifolium repens</i>
Wild parsnip	<i>Pastinaca sativa</i>
Willow herb spp.	<i>Epilobium spp.</i>
Wood dock	<i>Rumex sanguineus</i>
Yellow sedge	<i>Carex viridula</i>
Yorkshire fog	<i>Holcus lanatus</i>

Trees/Scrub

Common name	Scientific name
Alder	<i>Ulnus glutinosa</i>
Ash	<i>Fraxinus excelsior</i>
Broom	<i>Cytisus scoparius</i>
Dogwood	<i>Cornus sanguinea</i>
European gorse	<i>Ulex europaeus</i>
Field rose	<i>Rosa arvensis</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Pedunculate Oak	<i>Quercus robur</i>
Sessile Oak	<i>Quercus petraea</i>
Silver Birch	<i>Betula pendula</i>
Sycamore	<i>Acer pseudoplatanus</i>
Willow spp.	<i>Salix spp.</i>
Wych elm	<i>Ulmus glabra</i>

Invasive non-native species

Common name	Scientific name
Buddleia	<i>Buddleia davidii</i>
Wall cotoneaster	<i>Cotoneaster horizontalis</i>
Himalayan balsam	<i>Impatiens glandulifera</i>
Japanese knotweed	<i>Reynoutria japonica</i>
Stinking tutsan	<i>Hypericum hircinum</i>