



Neath Abbey Business Park
Neath Abbey

Preliminary Ecological Appraisal

August 2021

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Document Verification Table

Neath Abbey Business Park, Neath Preliminary Ecological Appraisal				
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Summary

Brief and Site Location	Acer Ecology Ltd. were instructed by ATT Engineering to conduct a preliminary ecological appraisal of land at Neath Business Park, Neath SA10 7DR, within the boundary of Neath Port Talbot County Borough Council.
Development Proposals	In a previously submitted planning application, proposals involve clearance of the site to facilitate the construction of an industrial site comprising a main retail unit, associated parking and infrastructure.
Impacts to Key Receptors	Provided appropriate precautionary and mitigation measures detailed in Section 4 are implemented, the development is not anticipated to result in adverse impacts to any protected sites, habitats and species.
Recommendations	The following provisional recommendations have been developed based on the development proposals available at the time of writing: • CEMP • Precautionary measures; • Mitigation measures; and • Compensation and enhancement measures. Details of mitigation are outlined in detail in section 4.
Licensing Requirements	None required.
Conclusions	Provided the precautionary and mitigation measures detailed in Section 4 are implemented, the development is not anticipated to result in adverse impacts to any protected sites, habitats or species. The site's ecological value is not considered to represent a fundamental in-principal constraint to the proposed development.

1. Introduction

1.1. Brief

Acer Ecology Ltd. were instructed by ATT Engineering to conduct a preliminary ecological appraisal of land north of Neath Business Park, Neath SA10 7DR, within the boundary of Neath Port Talbot County Borough Council (Ordnance Survey Grid Reference centred at: SS 73344 97237)¹. The purpose of the assessment was to document the baseline ecological condition of the survey area, which comprises the red line boundary shown in Plan 1. This included identification of any designated sites or habitats that could be affected by the proposed works, and identification of or potential for, protected and/or otherwise notable species of conservation interest that could be affected. Potential ecological constraints were identified, and subsequent recommendations developed.

This assessment will provide initial recommendations based on the development proposals available at the time of writing. They should be revised upon finalisation of the design.

1.2. Site Description

The site proposed for development measures approximately 0.24 hectares of flat land, and mainly comprises scrub-woodland, an area of semi-improved grassland and some semi-mature trees. Stands of Japanese knotweed (*Fallopia Japonica*) are present within the site. The proposed development site is situated immediately north of Neath Abbey Business Park which is located on the southern outskirts of the suburban area of Neath Abbey, approximately 1.8km from the town of Neath.

On the southern and south-eastern boundaries of the site there is a neighbouring industrial unit, heras fencing and a strip of dense scrub that extends into the developed area of Neath Abbey Business Park. The northern boundary comprises dense scrub and unmanaged grassland, which continues along the vegetated corridor of the Tennant Canal adjacent to the northern site boundary. Along the western boundary there is a slip road leading from the A465.

1.3. Proposed Works

In a previously submitted planning application, proposals involve clearance of the site to facilitate the construction of an industrial site comprising a main retail unit, associated parking and infrastructure. The plans from this previous application are provided in Appendix 1 (Planning Reference: P2015/0631)².

1.4. Scope of the Study

The study comprised the following:

¹ Latitude and Longitude: 51.659602 , -3.8324981/ what3words: tummy.nurses.proof

² <https://planningonline.npt.gov.uk/online-applications/>

- A desk study to identify existing information on statutory and non-statutory sites of nature conservation interest, and records of notable or protected habitats or species within the site and its environs;
- A Phase 1 Habitat Survey of the site, extended to search for evidence of, and potential for, protected fauna; and
- Identification of potential ecological constraints to the proposed works at the site and assessments of impacts including appropriate mitigation measures where necessary.

1.5. Review of Historic Site Data

A relevant historic report exists for the proposed development:

- Acer Ecology Ltd, Land Adjacent to Neath Abbey Business Park, Neath Abbey, Preliminary Ecological Appraisal, April 2015.
- This report found that no habitats on the site are likely to be greater than site value and the loss of such habitats would be unlikely to have significant impacts outside of the development site, although mitigation and minimisation of such impacts is desirable. There was potential for works to adversely affect legally protected species and so mitigation and compensation measures were required with recommendations detailed within the report.

1.6. Reporting

This report aims to:

- Outline the methodology used during the survey;
- Present the results of the survey;
- Provide an ecological evaluation of on-site habitats, including an assessment of the potential for protected species;
- Provide an assessment of the potential impacts of the development proposals on ecological receptors identified through the desk and field study;
- Provide an assessment of the potential ecological constraints to the proposals; and
- Provide recommendations for further survey, avoidance, mitigation and enhancement where appropriate.

2. Methods

The survey was undertaken following standard methods as described in the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal 2016 guidelines, and the Phase 1 Habitat Survey methodology (Joint Nature Conservation Committee, 2010). The methodology utilised for the survey work comprised a desk study, habitat survey and a survey of protected and notable species.

2.1. Desk Study

2.1.1. Protected Sites, Habitats and Species

Information on designated sites (Table 1) and protected species was obtained from the following sources. The legislation and policy relating to statutory and non-statutory designated sites can be found in Appendix 2. Plans 2 and 3 show the protected sites in relation to the proposed development site.

Table 1: Summary of Designated Sites and Other Abbreviations

Abbreviations	
Special Areas of Conservation	SAC
Special Protected Area	SPA
Site of Special Scientific Interest	SSSI
National Nature Reserve	NNR
Local Nature Reserve	LNR
Site of Importance for Nature Conservation	SINC
Ancient Semi-Natural Woodland	ASNW
Restored Ancient Woodland Site	RAWS
Plantation on Ancient Woodland Site	PAWS
South East Wales Biological Records Centre	SEWBRcC
Natural Resources Wales	NRW

Table 2: Sources of Data

Source	Data	Radius of Search
NRW Geographical Information Systems (GIS) Layers	Statutory and non-statutory nature conservation designated sites ASNW, RAWS and PAWS	Ramsar/SACs/SPAs/SSSIs/NNRs)/LNRs – 2km ³ . SACs (designated for bats) - 10km. 1km.
SEWBRcC	Protected species records (SEWBRcC 0212-239) SINCs - 1km.	1km. 1km.

All available records of bat roosts were considered. For other species, only records collected within the last 10 years were considered relevant.

³ The citations of all the SSSIs and SACs within 2km of the site were consulted to determine if any of them had features or species which could be affected by the development proposals.

2.1.2. Landscape Context

The site and wider landscape were assessed and characterised using aerial images, Ordnance Survey maps and SEWBRc. The presence of off-site features and habitats, which add to the ecological value within the wider area (for example, ponds within 0.5km of the site) were identified. Where appropriate, such features were scoped into the detailed assessment of impacts presented in Section 4 below.

2.1.3. Ancient Woodland

Although ancient woodland is not a designated site as such, it is often listed as a designated site due to its ecological significance and associated protection. Ancient woodland has therefore been included within the non-statutory designated site section of this report.

2.1.4. Planning Authority

The Neath Port Talbot County Borough Council Planning portal⁴ was consulted to determine if any previous survey information was available for the site, or immediate surroundings.

2.2. Field Study

2.2.1. Personnel

The field survey was undertaken in good weather on the 7th July 2021 by Paul Hudson MCIEEM⁵ and Daisy Smith⁶.

2.2.2. Vegetation and Habitats

The vegetation and habitat types present within the survey area were categorised and mapped in accordance with the standard⁷ Phase 1 Habitat assessment methodology (Joint Nature Conservation Committee, 2010), dominant and conspicuous plant species were recorded for each habitat. Target notes were used to record information on features of ecological interest, such as evidence of, or habitats with potential to support protected species. Following the completion of the survey, a colour-coded habitat plan was digitised using CorelDRAW 12 to show the extent and distribution of the different habitat types present within the site (see Plan 3).

Target notes (TN) were labelled on the plan where any features of interest too small to map were recorded.

Habitats on site were assessed to determine whether they qualified as Section 7 habitats (Environment Wales Act 2016), Priority Habitats of the UK Biodiversity Action Plan (BAP) (Biodiversity Reporting &

⁴ <https://planningonline.npt.gov.uk/online-applications/>

⁵ Paul graduated with a degree in Environmental Biology from Reading University and a Postgraduate Diploma in Conservation Management from the University of East Anglia. He is experienced in undertaking preliminary ecological appraisals and has been involved in ecological survey work since 2001. He has undertaken extensive training in protected species assessment, phase 1 habitat surveys and botanical surveying. Further details of his qualifications and experience can be found on LinkedIn.

⁶ Daisy graduated with a degree in Zoology from the University of Southampton. Daisy is currently working as an Assistant Ecologist and receiving training from Acer Ecology. She is an accredited agent under Paul Hudson's bat licence (SO88190/7).

⁷ Some additional categories were also used if applicable e.g. hard standing and Japanese knotweed.

Information Group, 2007), habitats of local priority for conservation, for example in the relevant Local Biodiversity Action Plan (LBAP), or if they qualified for inclusion as non-statutory designated site inclusion (SINC/ LWS/ SNCI).

Hedgerows within the site were not formally assessed against the definitions within the Hedgerow Regulations 1997 as this was beyond the scope of the assessment.

The presence of invasive plant species listed on Schedule 9⁸ of the Wildlife and Countryside Act 1981 (as amended), such as Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*) and Japanese knotweed (*Fallopia japonica*) were also noted during the survey, if present.

2.2.3. Protected and Notable Species

During the survey, emphasis was placed on searching for evidence of, and habitats with, potential to support protected or notable species, especially species meeting any of the following criteria:

- Listed under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019;
- Listed under Section 7 of the Environment (Wales) Act 2016 as being of principal importance for maintaining and enhancing biodiversity in Wales;
- Listed as a local priority for conservation, for example in the relevant Local Biodiversity Action Plan (LBAP);
- Red Listed using International Union for the Conservation of Nature (IUCN) criteria (e.g. in one of the UK Species Status Project⁹ reviews, in the Species of Conservation Concern Red, Amber or Near Threatened List¹⁰, Birds of Conservation Concern in Wales¹¹, or, where a more recent assessment of the taxonomic group has not yet been undertaken, listed in a Red Data Book);
- Listed as a Nationally Rare or Nationally Scarce species (e.g. in one of the Species Status Project reviews) or listed as a Nationally Notable species where a more recent assessment of the taxonomic group has not yet been undertaken; and/or
- Endemic to a country or geographic location (it is appropriate to recognise endemic sub-species, phenotypes, or cultural behaviours of a population that are unique to a particular place).

It should be noted that only those species with potential to be present on-site are mentioned within this report. The methodologies used were as follows:

⁸ Schedule 9 species of plants and animals are ones that do not naturally occur in Great Britain but have become established in the wild and represent a threat to the natural fauna and flora.

⁹ The Species Status project is the successor to the JNCC's Species Status Assessment project, providing up-to-date assessments of the threat status of various taxa using the internationally accepted Red List guidelines (<http://jncc.defra.gov.uk/page-1773>).

¹⁰ Eaton *et al.* (2015) Birds of conservation concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. British Birds 108: 708-746.

¹¹ Johnstone, I. and Bladwell, S. (2016) Birds of Conservation Concern in Wales 3: the population status of birds in Wales. Birds in Wales 13 (1).

Birds

Any birds observed during the field survey were recorded, in addition to features capable of supporting nesting birds (e.g. trees, hedgerows, buildings, bramble, ruderal vegetation and rough grassland etc.). The site was also assessed for its actual and potential suitability to support Wildlife and Countryside Act 1981 (as amended) Schedule 1 species.

A comprehensive bird survey, such as a breeding bird survey, was not undertaken as this was beyond the scope of the assessment.

Bats

Preliminary Ground-level Roost Assessment

A preliminary ground-level roost assessment of the trees within the survey area was undertaken, looking for features that bats could use for roosting (Potential Roost Features¹² (PRF) and evidence of bats (i.e. droppings in, around or below a PRF; odour emanating from a PRF; audible squeaking at dusk or during warm weather; or staining below the PRF). A systematic inspection was carried out around all accessible aspects of the tree, from both close to the trunk and further away. The location of the trees is shown on Plan 4.

The trees were assessed for their suitability to support roosting and hibernating bats in accordance with Table 4.1 of the Bat Conservation Trusts Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016) (See Appendix 6). A high-powered torch (Clulite), an endoscope (Snake vision), binoculars and a ladder were used as appropriate during the survey.

Terrestrial Habitat Assessment

A preliminary assessment of the value of the site for bats (and any potential roost sites therein) was made in accordance with Table 4.1 of the Bat Surveys for Professional Ecologists (Collins, 2016) (see Appendix 4). The assessment was based on the relative abundance and quality of habitat features within the site, and surrounding landscape, suitable for roosting, foraging and commuting bats.

Dormice

The hedgerows and scrub on site were assessed for their suitability to support dormice (*Muscardinus avellanarius*) with reference to guidance such as The Dormouse Conservation Handbook (Bright, Morris & Mitchell-Jones, 2006). The structure and composition of these habitats within site were assessed with respect to the presence of flower, fruit or nut-bearing food-plants such as hazel (*Corylus avellana*) (a favoured food-plant of dormice), oak (*Quercus* sp.), honeysuckle (*Lonicera periclymenum*), bramble (*Rubus fruticosus* agg.), sycamore (*Acer pseudoplatanus*), as well as other trees and shrubs listed in Bright, Morris

¹² Potential Roost Features that bats may use identified by Andrews include: woodpecker-holes; squirrel-holes; knot-holes; pruning-cuts; tear-outs; wounds; cankers; compression-forks; butt-rots; lightning strikes; hazard-beams; subsidence-cracks; shearing cracks; transverse cracks; welds; lifting bark; frost-cracks; fluting and ivy.

& Mitchell-Jones (2006) as being of value to dormice. In addition, connectivity to other areas of suitable habitat in the wider landscape, such as hedgerows and woodland, was assessed.

A search for hazelnuts which had been opened by dormouse was undertaken to aid determination of their presence.

A full nest tube/ box survey was not undertaken as this was beyond the scope of the assessment.

Great Crested Newts

The survey area was appraised for its suitability to support great crested newts (*Triturus cristatus*) (GCN). The assessment was based on guidance outlined in the Herpetofauna Workers' Manual (Joint Nature Conservation Committee, 2003) and the Great Crested Newt Conservation Handbook (Langton, Beckett & Foster, 2001).

Ordnance Survey maps and aerial images of the land surrounding the site were consulted to determine if any water bodies were present within the site or within 0.5km of it. The River Clydach, River Neath and Tennant Canal lie within 0.5km of the study area; however, fast flowing water is considered to act as a barrier to GCN migration (English Nature, 2001) and these water bodies are therefore deemed unsuitable for supporting GCN. There do not appear to be any ponds present within 500m of the site.

Otters

A preliminary assessment for signs of otter (*Lutra lutra*) was undertaken following the advice provided by Strachan & Jefferies (1996) and Chanin (2003). Where access was available, the banks of the Tennant Canal were searched for evidence of otter activity within 10m of the bank. Field signs of otter were recorded if present including spraints (faeces showing food remains), footprints, feeding remains and couches (above ground resting sites normally in thick vegetation cover), as well as potential or actual breeding sites and resting places (i.e. holts or natal dens) which are usually found under roots of bank side trees or in rock piles.

Water Voles

An assessment of the Tennant Canal adjacent to the site was undertaken to determine their suitability to support water voles following methods set out in the Water Vole Conservation Handbook (Strachan & Moorhouse, 2006). In addition, a search for evidence of activity was undertaken, including droppings, latrines, burrows, footprints and feeding lawns, of any areas considered suitable. A full water vole survey was not undertaken as this was beyond the scope of this assessment.

Badgers

Earth embankments, wooded copses, hedgerows and dense bramble beds are habitat features that often contain evidence of badger (*Meles meles*). Where present on-site these and other suitable habitat features

were searched for such evidence. Where present, the location of badger signs such as setts, runs, dung pits or latrines, prints, hair and foraging snuffle holes were recorded.

A full badger survey was not undertaken as it was beyond the scope of this assessment.

Reptiles

An assessment of the suitability of on-site habitats to support reptiles was made. Reptiles require a diverse range of habitats to meet their needs such as hedgerows, scrub, rough grassland, woodpiles, rubble, banks and compost heaps. The potential of the site to provide hibernation opportunities and spring/summer/autumn habitat was also assessed, with reference to guidance provided in the Herpetofauna Workers' Manual (Joint Nature Conservation Committee, 2003), the Reptile Management Handbook (Edgar, Foster & Baker, 2011) and the Reptile Mitigation Guidelines Technical Note TIN 102 (Natural England, 2013). The following factors were considered: vegetation type and structure; insolation (sun exposure); slope aspect; topography; surface geology; habitat connectivity; habitat size; prey abundance; refuge opportunity; hibernation opportunity; egg-laying potential for grass snake (*Natrix natrix*); public pressure; percentage of shade; levels of disturbance and management regime.

A targeted presence/ likely absence reptile survey was not undertaken as it was beyond the scope of this assessment.

Other Species

General habitat suitability and incidental sightings of other animal species were also noted.

2.2.4. Assessment of Ecological Value

The value of the habitats and features of the site have been provisionally evaluated and graded in accordance with a geographical frame of reference as detailed in Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland (CIEEM, 2018). The level of value of specific ecological receptors is assigned using a geographic frame of reference, i.e. international value being most important, then national, regional, county, district, local and, lastly, within the immediate zone of influence of the site only. Brief descriptions of how Acer Ecology interprets these categories are set out in Appendix 4.

2.2.5. Constraints and Limitations

General Temporal Constraints

Any ecological survey can only identify what was present on-site at the time the survey was conducted and habitat usage by species can change over time.

3. Baseline Ecological Conditions, Evaluation and Development Impacts

The baseline conditions and evaluation of the *in-situ* habitats and the actual/ potential presence of protected species are discussed in this section. Potential impacts on protected sites, *in-situ* habitats and protected or notable species arising from the proposed development are identified, including both direct and indirect impacts, and those associated with construction and operational stages.

A summary of relevant legislation and planning policies relating to protected sites, habitats and species is provided in Appendices 2 and 3.

3.1. Statutory Nature Conservation Designated Sites

Statutory Sites (SACs or SSSIs) Designated for Bats within 10km of Site

No SACs or SSSIs specially designated for bats lie within 10km of the site.

LNRs within 2km of Site

The proposed development site lies within 2km of the following statutory sites:

Table 3: Statutory Sites Designated Within 2km

Site Name	Designation	Description	Distance	Development Impacts
Eaglesbush Valley	LNR	Eaglesbush Valley is a steep-sided wooded valley located in the Melincryddan area of Neath. The 11 hectare site, designated as a Local Nature Reserve (LNR) in June 2008, is a mix of ancient semi-natural woodland habitats dissected by the Crythan brook.	1.7km	Eaglesbush valley lies 1.7km to the south-west of the proposed development site. Whilst the proposed development may have adverse impacts at the site level, the scale and the distance of the site to the LNR means no negative impacts are envisioned as a result of the development. The LNR is not mentioned further in this report.

3.2. Non-statutory Nature Conservation Designated Sites

SINCs

The proposed development site lies within 2km of the following statutory sites:

Table 4: Statutory Sites Designated Within 2km

Site Name	Designation	Description	Distance	Development Impacts
Tennant Canal	SINC	The Tennant canal supports exceptional aquatic and emergent flora along much of its length. It lies, in part, adjacent to Pant y Sais Fen	0.02km	The Tennant Canal SINC lies within close proximity to the proposed development site, therefore, silt, run-off and/or pollutants could

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		and links to Crymlyn Bog. Areas of wet grassland and Carr woodland form adjacent habitat, together with brownfield and industrial sites. Bankside vegetation includes numerous Orchid species, as well as typical emergent plants such as Yellow Flag Iris and Greater Spearwort. The Fen Raft Spider is found along the canal tow path and in Pant y Sais Fen. Otters are also regularly seen on the canal's riparian zone.		feasibly find their way into this watercourse (both during construction and operational phases of the development). Site drainage, run-off and accidental pollution incidents (including litter) will need to be carefully considered as these inputs may move downstream and thus affect areas beyond the immediate zone of influence. Such impacts can be avoided by the implementation of pollution prevention measures, as detailed in Section 4.
Pentrefrynnon	SINC	A previously developed site on the floodplain wedged between the A465, the Tennant Canal and Skewen. This is a very diverse site with 190 vascular plants and 14 bryophytes having been recorded on land that has been made up with spoil and other industrial waste. Mixed scrub is increasingly dominant. There is a high level of non-native vegetation on the site including Japanese Knotweed, Butterfly-bush, Himalayan Balsam, Cotoneaster species and New Zealand Pigmyweed.	0.1km	Considering the nature of it's designating features and the small-scale of the proposals, no adverse impacts to this protected site are anticipated as a result of the development.
Neath Estuary	SINC	The Neath Estuary is a large site which starts inland at Tonna and runs westwards to Briton Ferry where it meets the sea at Baglan Burrows. As well as the River Neath itself, the Neath Estuary site includes a variety of wetland habitats including Coastal Saltmarsh, Reedbeds, intertidal mudflats and flood plain grazing marsh. It forms the central core of wetland habitats SINC's running along this length of the River Neath.	0.2km	Considering the nature of it's designating features and the small-scale of the proposals, no adverse impacts to this are anticipated as a result of the development.
Gwlyptir Mynachlog Nedd	SINC	A large flat expanse of marshy grassland, lying north of the A465 adjacent	0.5km	Considering the distance between the designated site and the proposed

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		to Neath Abbey. The site is bisected E-W by Neath Canal. The north side is now almost completely reedbed. Although the site has not been surveyed, from aerial images the following habitats have been identified: Rush Pasture, Purple Moor Grass, broadleaved woodland and scrub, canal.		development site, the nature of it's designating features, the somewhat limited ecological connectivity, and the small-scale of the proposals, no adverse impacts are anticipated as a result of the development.
Coed Bach A'r Cwm	SINC	Coed Bach a'r Cwm is native, largely W10 valley woodland, established along part of the Afon Clydach and one of its tributaries. The northern part of the site is Registered Ancient Woodland and the site (and the southern section provides an extension of similar quality habitat) is situated on the northern outskirts of Neath near Neath Abbey. Its boundaries are partially defined by housing estates, with enclosed pastures to the north. The elevation ranges between 30-50m a.s.l. and the underlying geology in this area is the South Wales Upper Coal Measures Formation, exposures of which can be found along the river course. The site is well connected to Dyffryn Woods SINC059 and forms a link with the well wooded corridor of the Neath Canal SINC025.	0.9km	Considering the distance between the designated site and the proposed development site, the nature of it's designating features, the somewhat limited ecological connectivity, and the small-scale of the proposals, no adverse impacts are anticipated as a result of the development.
Dyffryn Woods	SINC	Dyffryn Woods is an ancient woodland site, which was felled and planted with conifers in the 1930s then mostly clear felled in the 1980. Some blocks of conifers and Beech were retained and the rest replanted with Larch and other conifers. The site is now dominated by dense thickets of birch, willow and other broadleaves. Invasive Rhododendron has been subject to a control	0.9km	Considering the distance between the designated site and the proposed development site, the nature of it's designating features, the somewhat limited ecological connectivity, and the small-scale of the proposals, no adverse impacts are anticipated as a result of the development.

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		programme. There is semi-natural ancient woodland to the south which links Dyffryn Woods to Coed Maesmelin, both owned by the Woodland Trust. In 2012 the Blue ground beetle was confirmed in the area and has been found in the wood. This is the only area (Skewen) in Wales where the beetle is known and the most northerly population in Europe.		
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Ancient Woodland

There are 22 areas of ASNW located within 2km of the proposed development site, the nearest of which lies 0.4km to the north of the site.

In addition, 15 Planted Areas on Ancient Woodland Sites (PAWS) and 17 Restored Ancient Woodland Site (RAWS) are present within the same search radius.

Considering the distances between these woodlands and the proposed development site, together with the small scale of the works, none of these woodlands are anticipated to be affected by proposals. They are therefore not mentioned further in this report.

3.3. Habitats and Vegetation

The results of the general survey of habitats and vegetation are shown on Plan 3. A botanical species list is provided in Appendix 4.

The site consists of six elements which are described in detail overleaf. These comprise:

- Scattered Broadleaved Trees (A3.1);
- Scrub Woodland (A1.1.1);
- Bramble Scrub¹³ (A2.1);
- Semi-Improved Grassland (B2.2);
- Tall Ruderal Vegetation (C3.1);
- Japanese Knotweed stand¹⁴ (no alphanumeric code provided);
- Himalayan Balsa¹⁴; and
- Disturbed ground.

¹³ Habitat included within dense scrub (A2.1) or scattered scrub (A2.2) within the Phase 1 Handbook (JNCC 2010)

¹⁴ Habitat not included within the Phase 1 Handbook (JNCC 2010)

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Table 5: Habitats Recorded on Site			
Habitat	Description	Ecological Value	Development Impacts
Broadleaved Woodland (A1.1.1), Scrub (A2) and Disturbed ground	The scrub woodland forms the majority of the site proposed for clearance. The scrub canopy is dominated by young trees with a DBH of no more than 10cm. The scrub is composed of ash (<i>Fraxinus excelsior</i>), hazel (<i>Corylus avellana</i>), hawthorn (<i>Crataegus monogyna</i>), elder (<i>Sambucus nigra</i>) and pedunculate oak (<i>Quercus robur</i>). The understorey is dominated by dense stands of bramble with lesser amounts of gorse (<i>Ulex europaeus</i>), male fern (<i>Dryopteris Filix-Mas</i>) and hart's tongue fern (<i>Asplenium scolopendrium</i>). Numerous scattered broadleaved trees are present within the development boundary. These trees are semi-mature and include both native and non-native species such as sycamore (<i>Acer pseudoplatanus</i>) and alder (<i>Alnus glutinosa</i>). Ivy (<i>Hedera helix</i>) is present throughout, indicative of a secondary woodland. Within the scrub woodland are areas of discarded concrete piles and disturbed ground.	Site value.	Felling of these trees may result in direct adverse impacts to birds nesting within these habitats, including the permanent loss of potential nesting sites. Recommendations to avoid and mitigate such impacts are presented in Section 4.
Bramble Scrub ¹⁵ (A2.1)	The southwest of the site is bordered by dense continuous bramble (<i>Rubus fruticosus</i> agg.) dominant scrub. Few other plants are present here, including rose of Sharon (<i>Hypericum calycinum</i>), hemp agrimony (<i>Eupatorium cannabinum</i>) and yarrow (<i>Achillea millefolium</i>).	Site value.	Clearance of the site to facilitate the new development will result in the permanent loss of areas of this habitat.
Semi-Improved Neutral Grassland (B2.2);	There is an area of semi-improved grassland located towards the south-west of the site. Species recorded here include, Yorkshire fog (<i>Holcus lanatus</i>), common nettle (<i>Urtica dioica</i>), dandelion (<i>Taraxacum officinale</i> agg.), bramble, creeping buttercup (<i>Agrostis stolonifera</i>) and ribwort plantain (<i>Plantago lanceolata</i>).	Site value.	Clearance of the site to facilitate the new development will result in the permanent loss of areas of this habitat.

¹⁵ Habitat included within dense scrub (A2.1) or scattered scrub (A2.2) within the Phase 1 Handbook (JNCC 2010)

Acer Ecology

Tall Ruderal Vegetation (C3.1) and Himalayan Balsam	Tall ruderal vegetation is present at the northern boundary of the site, adjacent to the Tenant Canal. Significant stands of Himalayan Balsam (<i>Impatiens glandulifera</i>) are present, adjacent to the walking trail. This area of ruderal vegetation also extends along the north-western edge of the site.	Site value.	Clearance of the site to facilitate the new development will result in the permanent loss of areas of this habitat.
Japanese Knotweed	There are multiple stands of Japanese Knotweed (<i>Fallopia japonica</i>) within the development boundary. These stands have been noted on Plan 3.	Site value.	See Section 4.
Himalayan Balsam	There are multiple stands of Himalayan Balsam within the development boundary. These stands have been noted on plan 3.	Site value.	See Section 4.
Disturbed ground	There are two areas of disturbed ground are present on site, one in the centre and the other located to the south-east of the site. Within these areas are small piles of discarded concrete.	Site value.	Clearance of the site to facilitate the new development will result in the permanent loss of areas of this habitat.

Acer Ecology

Photos of Habitats on Site

Photo 1: Broadleaved Scrub Woodland



Photo 2: Bramble Scrub



Photo 3: Semi-Improved Neutral Grassland



Photo 4: Japanese Knotweed



Acer Ecology

Photo 5: Himalayan Balsam



3.4. Assessment of Impacts of Invasive Species

Presence of Invasive Species on-site

There are significant stands of Himalayan balsam, a Schedule 9 invasive plant species, largely present along the banks of the watercourse at the northern boundary. There are also multiple stands of Japanese knotweed, also a Schedule 9 invasive plant, within the development boundary. The presence of Himalayan balsam and Japanese knotweed is considered to be having a negative effect on the biodiversity value of the site.

Assessment of Potential Development Impacts

The clearance of the site will involve the removal of highly invasive Japanese knotweed and Himalayan balsam. If both the Himalayan balsam and Japanese knotweed are not cleared carefully and sensibly, they may spread further, such as downstream into the wider landscape. In addition to this, if left unmanaged, the Himalayan balsam will continue to spread across the site, resulting in a severe reduction in species richness and biodiversity. Recommendations for appropriate removal of Japanese knotweed and Himalayan balsam are provided in Section 4.

3.5. Protected and Notable Species

3.5.1. Notable Plant Species

Data Trawl Results

SEWBRc returned a large number of records of rare and/ or 'notable' plants (including species regarded as 'Locally Important', LBAP species and UK Red Data Book-listed species) from within 1km of the development footprint comprising:

- Arrow bamboo, *Pseudosasa japonica*, 0.9km, 2011;
- Butterfly bush, *Buddleja davidii*, 14 records, <1km, 2011-2019;
- Cherry laurel, *Prunus laurocerasus*, 3 records, <1km, 2011-2013;
- Himalayan honeysuckle, *Leycesteria formosa*, 0.4km, 2011;
- Japanese knotweed, *Fallopia japonica*, 32 records, <1km, 2011-2013;
- Montbretia, *C. x crocosmiiflora*, 6 records, <1km, 2011;
- Nuttall's waterweed, *Elodea nuttalli*, 3 records, <1km, 2011-2018;
- Shore horsetail, *Equisetum x littorale*, 0.1km, 2011;
- Spiked water-milfoil, *Myriophyllum spicatum*, 0.8km, 2015;
- Unbranched bur-reed, *Sparganium emersum*, 0.3km, 2019; and

- Wild celery, *Apium graveleons*, 0.3km, 2011.

However, none of the records provided relate to the proposed development site.

Field Survey Results

No plant species, which individually are considered to be of either of national, regional or local significance were recorded on the site.

3.5.2. Birds

Desk Study Results

The following table shows nesting birds and wintering birds of note recorded within 1km of the site, that are also associated with the habitats present on-site and their conservation status:

Acer Ecology

Table 6: Records of Birds								
Species		Schedule 1	Section 7 list – Environment Act Wales	UK BAP	Red list ¹⁶	Amber list ¹⁷	Breeding Habitat ¹⁸	Wintering Habitat
Dunnock	<i>Prunella modularis</i>		Yes	Yes		Yes	Scrubland, woodland, field hedgerows, suburban parks and gardens	As breeding habitat
House sparrow	<i>Passer domesticus</i>		Yes	Yes	Yes		Agricultural land, grasslands, hedgerows, scrub, parks, gardens and farmyards	As breeding habitat
Kingfisher	<i>Alcedo atthis</i>	Yes					Slow-flowing rivers, canals, lakes, ponds and flooded gravel pits	As breeding habitat, plus estuaries, harbours and seashores
Pied flycatcher	<i>Ficedula hypoleuca</i>		Yes				Waterside, agricultural, pastoral and urban habitats	As breeding habitat
Red kite	<i>Milvus milvus</i>	Yes					Broadleaved woodlands within farmland, rough grassland or heath	As breeding habitat
Song thrush	<i>Turdus philomelos</i>		Yes	Yes	Yes		Woodland, parkland, hedgerows, scrubby grassland and gardens	As breeding habitat except woodlands are mostly vacated
Starling	<i>Sturnus vulgaris</i>		Yes	Yes	Yes		Farmland, woodland and suburban habitats	As breeding habitat
Tree sparrow	<i>Passer montanus</i>		Yes	Yes	Yes		Mixed farmland or parkland with mature hedgerows, trees and woodland	As breeding habitat, plus other suburbs

¹⁶ Bird species of high conservation concern, such as those whose population or range is rapidly declining, recently or historically, and those of global conservation concern.

¹⁷ Bird species of medium conservation concern, such as those whose population is in moderate decline, rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe.

¹⁸ Breeding and wintering habitat descriptions from Key Habitat Attributes for Birds and Bird Assemblages in England Part 1 (ENRR359)

Acer Ecology

Field Survey Results

Only a very limited number of birds were recorded on site. This included robin (*Erithacus rubecula*) and dunnock (*Prunella modularis*). No nests or signs of nesting behaviour were recorded on site.

Assessment of Ecological Value of Site for Birds

The scattered trees and dense scrub provide nesting and foraging opportunities for a range of tree and scrub nesting bird species, including UK BAP and Red List species such as house sparrow and song thrush, which have been recorded in the wider area. Furthermore, the site is within a close proximity to the Tennant Canal which provides suitable habitat for riparian birds, including kingfisher, a Schedule 1 species, which has been recorded in close proximity to the site.

As a whole, the site is considered to be of local value to birds. It contains individual features that provide moderate foraging and nesting habitats for a range of species; however, these features are widespread and common in the surrounding landscape.

Impact Assessment of Proposed Development on Birds

The proposed works may result in the direct loss of, or disturbance, to nesting birds. Felling of the scattered broadleaved trees and the removal of scrub will result in the loss of foraging and potential nesting sites that could be utilised during the breeding season (March to August inclusive). If undertaken during the breeding season, any building work and vegetation clearance associated with the proposed works could result in disturbance to birds nesting with these habitats. Recommendations to avoid and compensate for such impacts are included in Section 4.

3.5.3. Bats

Desk Study Results

The data search returned a total of two records of bat roosts within 1km of the site. The roost records are summarised in the table below.

Table 7: Bat Roost Records

Species	Total Number of Records	Distance to Nearest Record	Most Recent Record	Maximum Count
Pipistrelle bat species	1	0.5km	2018	4
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	1	0.9km	2020	4

In addition to the roost records, SEWBRc returned many records of bats foraging or commuting within 1km of the site. These included: brown long-eared (*Plecotus auritus*), noctule (*Nyctalus noctula*), common pipistrelle (*Pipistrellus pipistrellus*), pipistrelle bat species (*Pipistrellus sp.*), and soprano pipistrelle (*Pipistrellus pygmaeus*).

Field Survey Results

Trees

The majority of the woodland edge and tree-lined hedgerow within the development footprint were semi-mature in age, with no PRFs. They were therefore assessed as having either low or negligible bat roost potential and were scoped out of the assessment. No trees with moderate or high bat roosting potential were recorded on site.

Foraging and Commuting Habitat

The scrub woodland edge and bramble scrub within the site have the potential to support foraging bats, contributing to linear habitat features, extending beyond the site boundary, which could be used by commuting bats.

Assessment of Ecological Value of Site for Bats

The site is collectively considered to provide moderate quality foraging and commuting habitat for bats. There are patches of grassland, lines of trees and scrub that form a continuous habitat on the site that is connected to the wider landscape. Furthermore, the Tennant canal lies in close proximity to the site, a high-quality linear feature that could be used by bats for foraging and commuting. The areas of broadleaved woodland and semi-improved grassland are likely to support healthy invertebrate populations which in turn provide ample foraging opportunities for bats.

Impact Assessment of Proposed Development on Bats

The proposals will result in a small area of moderate-quality foraging and commuting habitat being lost, and these losses will be permanent in nature. In addition to this, the removal of scattered broadleaved trees could result in the destruction of potential bat roosts, or the killing of any individuals that may be present within them.

3.5.4. Dormice

Desk Study Results

SEWBRc did not return any published records of dormice from within 1km of the site (SEWBRc OR data 2021).

Field Survey Results

No signs or evidence of dormice were recorded during the survey. The bramble scrub and scrub woodland provide opportunities for arboreal movement of dormice and the site supports a number of known food-plants of dormice, including, sycamore and bramble.

Assessment of Ecological Value of Site for Dormice

The site is relatively small in size and largely isolated from areas of mature woodland and other optimal habitat in the wider area. Furthermore, the LBAP for Neath Port Talbot states the only known population of dormice in the county exists on the border with Bridgend to the east. Although the site appears superficially suitable for supporting dormice, their presence on site is considered unlikely. This species is not discussed further in this report.

3.5.5. Great Crested Newt

Desk Study Results

SEWBRc did not return any records of GCN from within 1km of the site.

There are records of other amphibians, comprising two records of common frog (*Rana temporaria*), one record of common toad (*Bufo bufo*) and one record of smooth newt (*Lissotriton vulgaris*). The nearest record is of a common toad which was recorded 0.3km to the north of the site in 2013.

Field Survey Results

No direct observation or evidence of great crested newt was recorded on site, although a targeted survey was not undertaken for this species.

There are no ponds within 500m of the site proposed for development. However, the Tennant canal is located immediately to the north of the site. A Habitat Suitability Index (HSI) was not performed as it is only suitable for ponds. The banks of the canal are vegetated, which are suitable for great crested newts to lay their eggs, however, the Tennant canal is considered to have low suitability to support breeding great crested newt for the following reasons:

- The canal is stocked with freshwater fish such as pike, bream, roach, carp and tench. In addition, the section of the canal adjacent to the site is particularly rich with fish (Pers. comm. Mike Doyle, Skewen Angling Club). Fish will predate adult and larval stage newt; and
- The canal supports waterfowl which will also predate adult great crested newt and larval stage newts directly or indirectly through grazing on vegetation.

Assessment of Ecological Value of Site for Great Crested Newt

There are no records of great crested newt within 2km of the site and there are no suitable water bodies (notwithstanding the Tennant canal discussed above) for breeding newts within 500m of the site. Furthermore, the site is isolated and surrounded by urban and industrial conurbations with the only connecting habitat being the Tennant Canal to the north, which has low suitability for great crested newt. It should be noted that the vegetated verges of the canal are also isolated from the wider area, as they are intersected by bridges and roads to the east and west. The probability of great crested newts occurring on site is considered to be very low and so this species is not discussed further in this report.

3.5.6.

3.5.7. Otter

Desk Study Results

The data search returned a total of one otter record within 1km of the site (SEWBRc data 2021). The record was made in 2011, approximately 0.1km away towards the south-west of the site. As mentioned in the previous preliminary ecological appraisal there are numerous records of otters within 1km of the site (Acer Ecology, 2015).

Field Survey Results

No evidence of otters such as spraint or holts were identified from the Tennant Canal. However, it remains highly likely that otters forage/and or commute along this watercourse, given their recorded presence in the wider area (SEWBRc data 2021). The canal is stocked with freshwater fish which would provide suitable prey for otters. However, the stretch of the canal surveyed supports no mature overhanging trees, therefore are unsuitable for otter holts. Furthermore, the canal is bordered by public footpaths and is therefore open to high levels of human disturbance, which could deter otters from using the site. The probability of otter using the site proposed for development is considered to be very low and so this species is not discussed further in this report.

3.5.8. Water Vole

Desk Study Results

SEWBRc did not return any records of water vole from within 1km of the site.

Field Survey Results

No water voles, or signs of water vole were recorded along the banks of the tenant canal, although a full targeted survey was not undertaken. The banks are superficially suitable for burrowing by species, although no such evidence was recorded during this survey. However, as no records of water vole were returned by the data search, the proposed development is highly unlikely to have a significant effect on water vole. This species is not discussed further in this report.

3.5.9. Badgers

Desk Study Results

The data search returned one badger record within 1km of the site (SEWBRc data 2021). This was an observation of a dead individual approximately 0.4km to the southwest of the proposed development site in 2014.

Field Survey Results

No setts or other signs of badgers were recorded on site. The presence of badgers as a resident species on site was assessed as being unlikely due to the absence of any obvious signs.

Assessment of Ecological Value of Site for Badgers

Although no evidence of badgers was recorded on site, there is considered to be some limited potential for them to venture onto the site from the surrounding landscape to forage sporadically.

Impact Assessment of Proposed Development on Badgers

The development is likely to clear habitat that provides foraging habitat for badgers. However, as badgers are nocturnal, it is considered unlikely that any resident badgers will be encountered on site during works. Certain construction methods are recommended in Section 4 to ensure that no badgers moving through the site are injured during the construction phase of the development.

3.5.10. Reptiles

Desk Study Results

The data search returned seven records of reptiles within 1km of the site (SEWBRc data 2021). These were all of common lizards (*Zootoca vivipara*), recorded approximately 0.7km away to the north of the site in 2019.

Field Survey Results

No reptiles or evidence of reptiles (e.g. sloughed skins¹⁹) were incidentally recorded during the survey, although a targeted reptile survey was not undertaken.

The survey area contains a range of optimal and sub-optimal habitats for reptiles. More suitable areas include the interfaces between habitats. The dense vegetation provides protective cover for reptiles, whilst the artificial refugia provides basking opportunities. The boundaries of the site also offer important interfaces, such as between the tall ruderal vegetation and scrub, as well as the riparian habitats

Assessment of Ecological Value of Site for Reptiles

The site is considered to provide areas of moderate quality reptile habitat that could be utilised by reptiles and several published records exist in proximity to the site. However, the site is not well ecologically connected due to road at the western site boundary and business park to the east and south.

Impact Assessment of Proposed Development on Reptiles

The presence of reptiles on site cannot be ruled out completely and so the proposed works may result in the complete loss of potential reptile habitat and increases in disturbance levels. Clearance of the vegetation

¹⁹ The outer layer of skin is shed, or 'sloughed' in all reptiles. This occurs most frequently in juveniles, but adults also go through the process several times a year (Beebee and Griffiths 2000).

may also result in the accidental killing or injury of reptiles. Precautionary measures to avoid such an occurrence are outlined in Section 4.

3.5.11. Other Mammals

Desk Study Results

SEWBReC returned 12 records of other mammals within 1km of the site, comprising: 10 common hedgehog (*Erinaceus europaeus*), one brown hare (*Lepus europaeus*) and one eastern grey squirrel (*Sciurus carolinensis*) within 1km of the site, the nearest of which was a common hedgehog, recorded 0.3km to the north-east of the site in 2018.

Field Survey Results

No incidental sightings or field signs of other mammals were recorded on site. However, it is highly likely that a range of common small mammals are present on the site, including hedgehogs (*Erinaceus europaeus*), shrews (*Sorex* sp.), voles (*Microtus/Myodes* sp.), mice (*Apodemus* sp.), fox (*Vulpes vulpes*) and mole (*Talpa europaea*) etc., occurring either as resident species or whilst foraging and/or commuting.

Assessment of Ecological Value of Site for Other Mammals

The semi-improved grassland/bramble scrub are considered likely to provide valuable foraging habitat for hedgehog (*Erinaceus europaeus*). In addition to this, the areas of concrete and disturbed ground are considered to provide optimal refugia for hedgehogs and hibernacula during the winter months. Furthermore, 10 records of hedgehogs were within 1km of the site. However, the site is not well ecologically connected due to road at the western site boundary and business park to the east and south.

Impact Assessment of Proposed Development on Other Mammals

Hedgehogs are listed a priority species listed under the UK Biodiversity Action Plan in light of dramatic population declines. As the site is proposed to be cleared for development, the impact on potential hedgehog habitat on site is considered to be moderate and permanent, including death of injury during vegetation clearance, permanent habitat loss at a local scale and increases in disturbance levels.

Mitigation measures are outline in Section 4 and recommended to enable the requirements of the local planning authority to be met, namely the restoration or enhancement of hedgehog habitat.

4. Recommendations and Conclusions

The following recommendations are likely to be secured through planning conditions. They have been developed based on the development proposals available at the time of writing. It should be noted that they may be subject to change upon receipt of the final design. The implementation of these recommendations will ensure compliance with the Environment (Wales) Act 2016, Planning Policy Wales version 11 (Welsh Government, 2021)²⁰, TAN 5 *Nature Conservation and Planning* (2009), Section 6 and 7 of the Environment Wales Act, 2016, the Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019 and help to avoid or minimise adverse impacts on the environment and protected species, mitigate and compensate for losses where damage is unavoidable and promote opportunities to enhance biodiversity. There is a requirement that developments must provide net benefit for biodiversity.

Stepwise Approach to Maintaining Biodiversity

As part of the Future Wales: The National Plan 2040 and Planning Policy Wales (PPW) Edition 11 - 24th Feb 2021, planning authorities must follow a stepwise approach to maintain and enhance biodiversity and build resilient ecological networks by ensuring that any adverse environmental effects are firstly avoided, then minimized, mitigated, and as a last resort compensated for; enhancement must be secured wherever possible. The first priority for planning authorities is to avoid damage to biodiversity and ecosystem functioning. Where there may be harmful environmental effects, planning authorities will need to be satisfied that any reasonable alternative sites that would result in less harm, no harm or gain have been fully considered. This policy is mirrored within the Neat Port Talbot Local Development Plan – Strategic Policy SP15 and SP16 (2011-2026).

The process has been followed on site:

Avoidance – Avoidance has not been possible on site, as the site owners do not own any alternative sites suitable for such a development.

Mitigation – A comprehensive set of mitigation measures are provided below.

Compensation – Robust and comprehensive compensation measures are provided below.

4.1. Further Work

4.1.1. CEMP

Due to the proximity of the site to the Tenant Canal, a Construction Environmental Management Plan (CEMP), Landscape Environmental Management Plan (LEMP) and/or a standalone 'Mitigation and Enhancement Plan', will be produced prior to commencement of the proposed development works.

²⁰ Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions ... and in so doing promote the resilience of ecosystems. Development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.

As part of the CEMP a 7m ecological buffer zone will be maintained between the site and the Tennant canal.

4.2. Precautionary Measures

4.2.1. Nesting Birds and Reptiles

The following recommendations are provided to mitigate/ compensate potential negative impacts to nesting birds and reptiles.

- Clearance of semi-mature trees must take place outside of the hibernation season for reptiles (October – March inclusive). Simultaneously, clearance of vegetation must take place outside of the bird nesting season (March- August inclusive), leaving September as the only suitable month. Alternatively, if this is not possible, the vegetation on site must be searched by a suitably experience ecologist immediately prior to clearance to check for nesting birds;
- A two staged approach to vegetation clearance and site preparation is therefore recommended to avoid impacts to nesting birds and reduce the risk of killing or injuring individual reptiles, which will also be suitable for individual terrestrial phase amphibians. The clearance of vegetation should also be conducted under the supervision of an experienced ecologist. The clearance of the grassland areas should be conducted by starting from the south-west of the site, moving north-east to allow individuals to migrate in to adjacent and retained habitats. During the first stage, all vegetation will be initially cut to a height of 100mm, preceding a check for nesting birds by a qualified ecologist (this check would not be required if clearance works are undertaken in September). All cutting must be done by hand (eg by strimmer or brushcutter), rather than by tractor-drawn mowers. Cuttings should be removed from the development site immediately after cutting (if piled within the site nesting birds/ reptiles may colonise preventing later removal). After this first stage is completed, all remaining vegetation can be removed and site preparation and ground works can begin as reptiles will have migrated on to adjacent habitats.

4.2.2. Bats

The following recommendations are provided to mitigate/ compensate potential negative impacts to bats:

- A sensitive lighting strategy must form part of the development both during construction and operation phases. This will mitigate against any light disturbance to foraging/ commuting bats using the habitats to the north of the site. This will involve no external lighting installed along the northern boundary of the site or upon the external elevations of the new buildings which face the northern boundary. This will create a 'dark corridor' allowing bats to continue to forage and commute along this linear feature. In addition, no works during the construction or operation phases will take place at night;

- Bat boxes must be installed on retained and off-site trees to enhance roosting habitat and compensate for the loss of potential (albeit low) roosting habitat for bats;
- Compensatory planting of native trees and shrubs (section 5.2.1) will aim to minimise the loss of bat foraging habitat; and
- If bats or a bat roost (or evidence of historical occupation by bats) are discovered during works, all work will stop in the immediate area and the advice from Natural Resources Wales will be sought on how best to proceed. This is likely to involve an application for a European Protected Species Licence to destroy a bat roost and the provision of alternative roosting opportunities nearby to mitigate for the loss of the roost site. Clearance of vegetation should not be undertaken within 15m of an identified active roost to ensure that disturbance levels are kept to a minimum.

4.2.3. Badgers

No setts or signs of badger activity were recorded within the site however, in accordance with good practice, any excavations associated with development should either be closed at night or fitted with escape ramps to help any animals such as badgers escape. It should be noted that patterns of badger activity and site use can be subject to sudden and dynamic changes over very short time periods. If there is a significant delay to development of the site (i.e more than 12 months) an updated badger survey should be undertaken to determine if any new active setts have been created within the site.

4.2.4. Japanese Knotweed

The Wildlife and Countryside Act 1981 specifically prohibits the reckless or deliberate spreading of Japanese knotweed, and appropriate measures are therefore required to minimise the risk of its spread during any works, and to achieve its eradication wherever possible. The Environment Agencies Japanese Knotweed Code of Practice (2013) advises that in order to prevent areas of the site currently unaffected by Japanese knotweed becoming contaminated, staff should be made aware of what the plant looks like and what their responsibilities are; there should be a clerk of works responsible for the management of Japanese knotweed; and that there is a Japanese knotweed management plan in place, a template for which can be found within the Japanese Knotweed Code of Practice document. One of the methods for controlling invasive plants involves the use of herbicides, in which case permission should be sought from Natural Resources Wales as the invasive species was found growing near a watercourse.

A specialist Invasive Non-Native Species (INNS) contractor should undertake the control measures on the site.

4.2.5. Himalayan Balsam Eradication

Himalayan balsam, an invasive plant, will be eradicated from the site as far as possible and appropriate measures implemented to prevent the accidental spread of this species during the development. Invasive plant material is considered a 'controlled waste' and must be disposed of in

accordance with, and an environmental permit issued under, the Environmental Permitting (England and Wales) Regulations 2007.

Use of a Specialist Invasive Non-Native Species Contractor

A specialist Invasive Non-Native Species (INNS) contractor should undertake the control measures on the site.

Preventing Plants from Flowering

Initial control measures will aim to remove active plants from the site to prevent flowering. For maximum effectiveness this is best carried out before June²¹. Cutting, strimming or pulling up of the plants will be done from below the lowest node to prevent the plants from re-flowering. No strimming will be undertaken if seed pods are present. This action must be undertaken before the plants set seed to prevent the accidental dispersal of seeds. Two methods are recommended²¹:

Hand Pulling

Small infestations can be easily controlled by hand pulling plants. The plants have a shallow root system and will be and will be pulled out by firmly holding the base of the stem. Care needs to be taken to avoid snapping the stem above the first node as plants can regrow. Plants will be pulled up in the spring or early summer (April/May) before flowering (June/July). The site will be revisited two weeks after the first session to pull up any smaller plants that were missed or any late germinators. Pulled plants can be left on-site to decompose in an open area or put in a compost bin. It is best to avoid taking the plants off site for disposal or putting them in the recycling bin in case there is contamination by seeds.

Mowing and Cutting

Mowing and cutting are less labour intensive and may be more useful in this case at the outset, as there is a substantial amount of the plant on the site. Cutting using a scythe, machete, flail or strimmer will be carried out before flowering in June. Plants will be cut close to ground level, below the lowest node, to prevent regrowth. A repeat cut may be needed and the site revisited after 2 weeks to check for regrowth.

Cut stems can be left on-site to decompose in an open area. It is best to avoid taking the plants off-site for disposal or putting them in the recycling bin in case there is contamination by seeds.

One of both of the above methods will be repeated annually to prevent the re-colonisation of the site.

²¹ Adapted from the Welsh government's advice sheet, available at: <https://beta.gov.wales/sites/default/files/publications/2018-01/himalayan-balsam-controlling-it-on-your-land.pdf>

4.3. Compensation and Enhancement Measures

4.3.1. Nesting Birds

- To comply with Planning Policy Wales (Welsh Government February 2021), nesting and foraging habitat lost to the development must be compensated for by planting an area of native trees and berry-producing scrub vegetation (e.g. hawthorn, rowan, holly, guelder rose, blackthorn etc). Planting will be done within the 7m ecological buffer zone; and
- As the compensatory planting recommended above will take time to establish, compensatory nesting boxes should be provided upon the retained trees within the site, the scrub woodland within the 7m ecological buffer zone and also within the adjacent off-site habitats, such as the dense scrub (TN13) to the south-west of the site. It is recommended that at least 10 nest boxes are installed. A variety of boxes should be used to provide a variety of nesting opportunities for a number of species.

4.4. Longevity of Report

If development works do not begin within eighteen months to two years of the date of this report of this report, an update survey is likely to be required in accordance with guidance from NRW²² and BS 42020:2013²³, to determine if conditions have changed since those described in this report.

4.5. Conclusions

Provided the precautionary and mitigation measures detailed in Section 4 are implemented, the development is not anticipated to result in adverse impacts to any protected sites, habitats or species.

The site's ecological value is not considered to represent a fundamental in-principal constraint to the proposed development.

²² As set out in Point 5 of the NRW *Bat Surveys - Frequently Asked Questions* and Point 4 of the guidance included within the NRW European Protected Species Development Application Form.

²³ As set out in Section 6.2.1, point 7 which states that ecological information should not normally be more than two/three years old, or as stipulated in good practice guidance).

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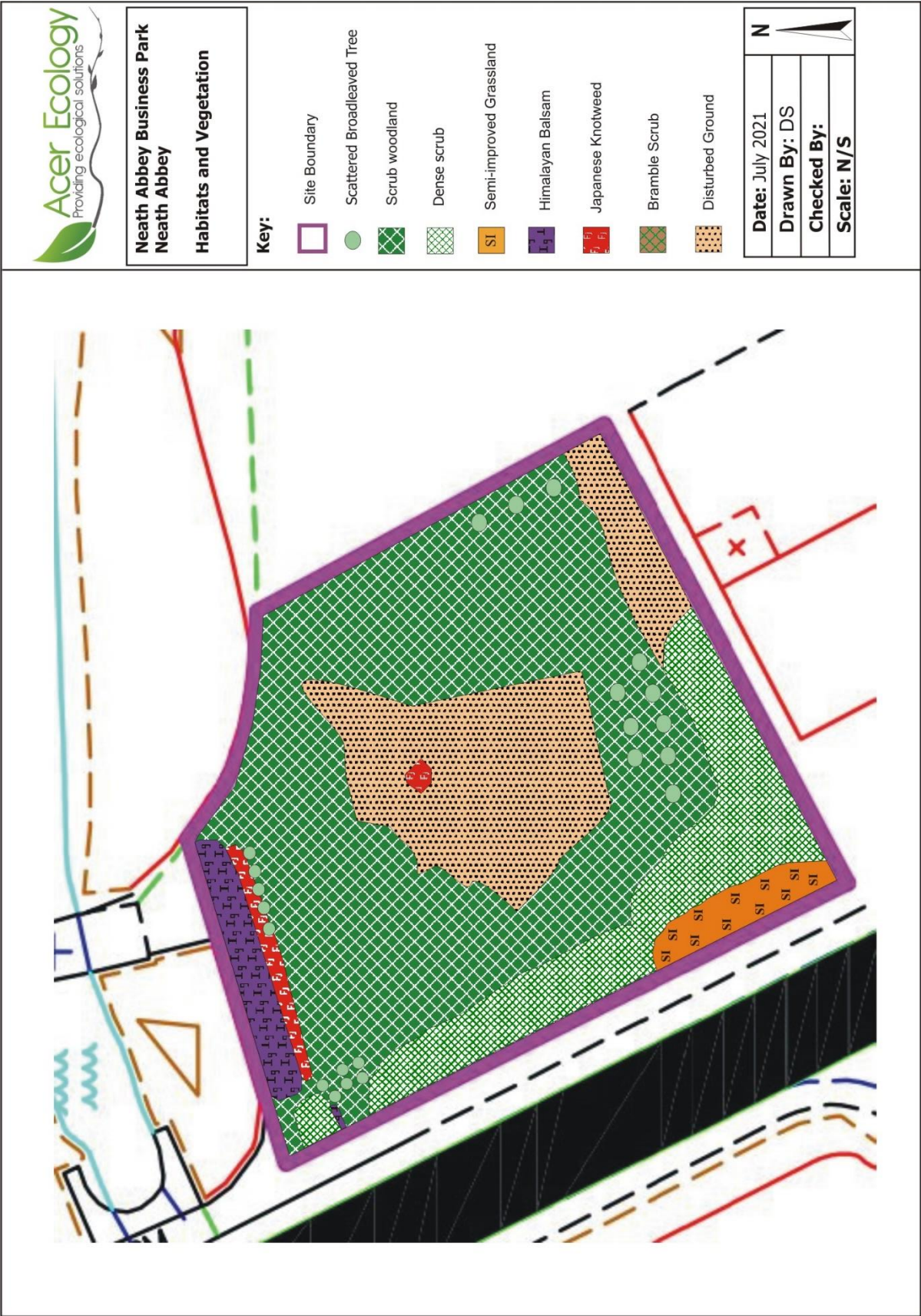
Plan 1: Site Location



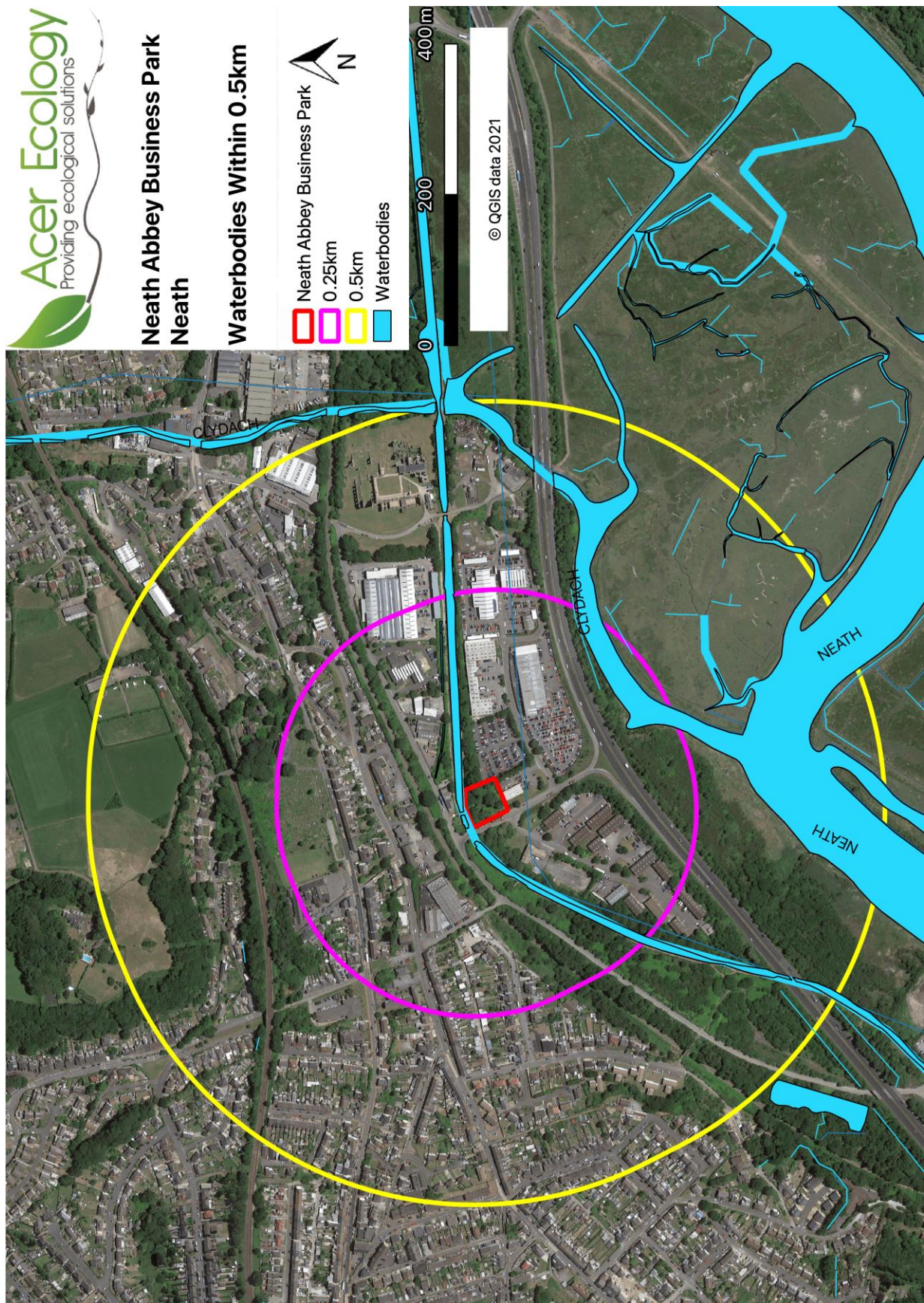
Plan 2: Protected Sites



Plan 3: Habitats and Vegetation



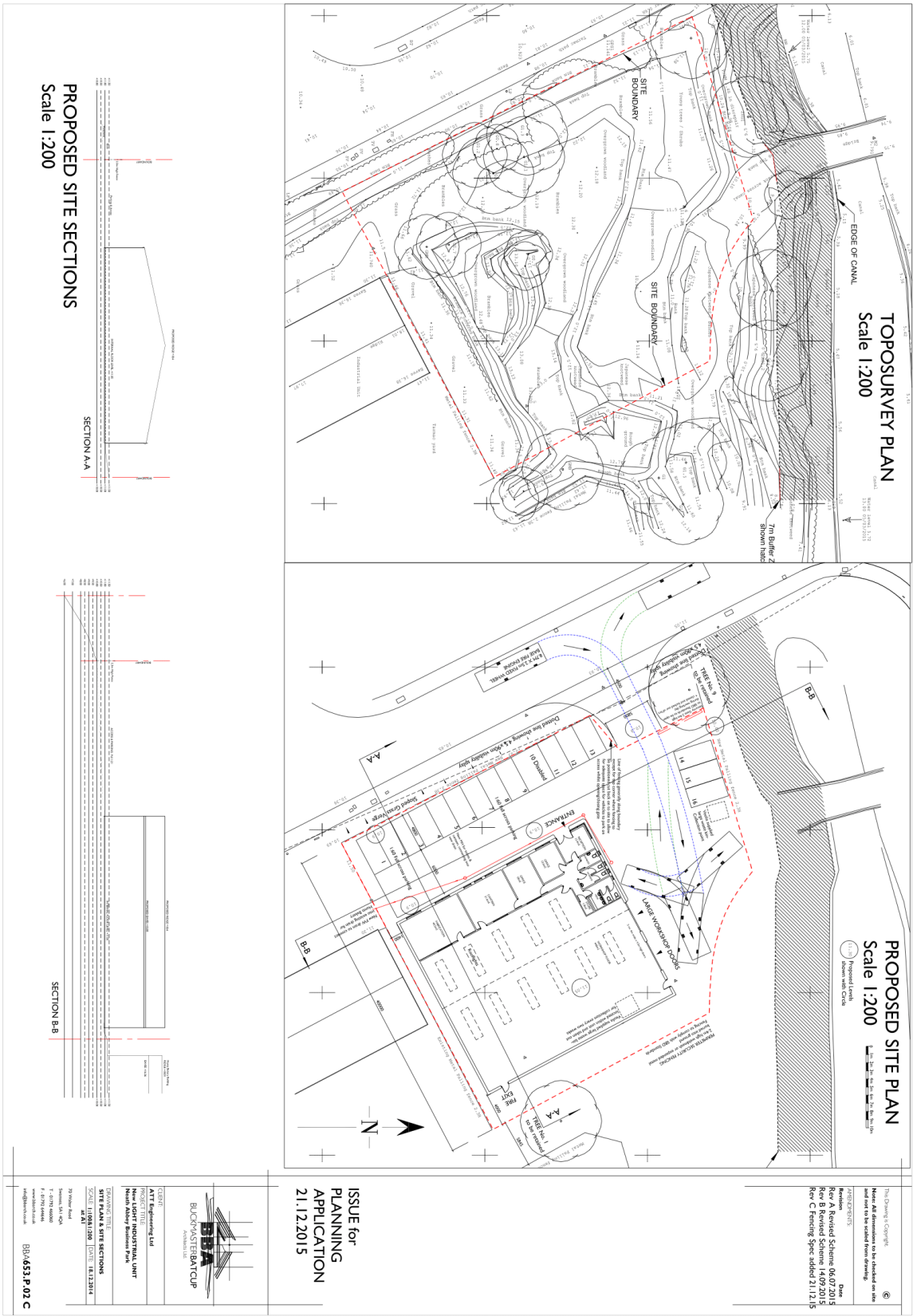
Plan 4: Location of Water Bodies within 0.5km of Site



Appendix 1: Proposed Development Works



Full Plans Approved



Appendix 2: Legislation and Policy Relating to Statutory and Non-Statutory Designated Sites and Planning Policy Relevant to Site

SINCS

SINCS are one of a class of nature conservation designations collectively referred to as 'Wildlife Sites'. Wildlife Sites are so-called 'third tier' sites, generally ranked below sites which are of international (first tier) or national (second tier) biodiversity significance, but which are considered to have substantive nature conservation value at the regional or district level. They are usually designated at the county or county borough level by the relevant local planning authority, and are recognised as a planning constraint in the relevant statutory development plan.

The framework for the identification and designation of 'Wildlife Sites' is set out in various Government documents, and is referred to in *Planning Policy Wales (2021)* and *Technical Advice Note (Wales) 5: Nature Conservation & Planning*. In Neath Port Talbot, SINCS are also afforded protection under Policy EN6 of the Adopted Neath Port Talbot County Borough Local Development Plan.

In Neath Port Talbot council, SINCS are also afforded protection under Policy EN6 which states that "Development proposals that would affect Regionally Important Geodiversity Sites (RIGS), Local Nature Reserves (LNRs), Sites of Interest for Nature Conservation (SINCS), sites meeting SINC criteria or sites supporting Local Biodiversity Action Plan (LBAP) or S42 habitats or species will only be permitted where: 1. They conserve and where possible enhance the natural heritage importance of the site; or 2. The development could not reasonably be located elsewhere, and the benefits of the development outweigh the natural heritage importance of the site". Policy EN6 also states: "Mitigation and/or compensation measures will need to be agreed where adverse effects are unavoidable".

ASNW and Woodland

The UK is a sparsely wooded country: 11.5% of Great Britain is covered with trees. Only 1.2% of the UK is ancient semi-natural woodland, a valuable and irreplaceable natural resource. Ancient semi-natural woodland, and plantations on ancient woodland sites, are a priority for conservation (JNCC).

The Welsh Assembly has recognised that areas of ancient woodland are declining and becoming increasingly fragmented and emphasises the importance of conserving ancient woodland and its value as a biodiversity resource through the publication of *Planning Policy Wales (2021)*.

Paragraph 5.2.9 states: "Trees, woodlands and hedgerows are of great importance, both as wildlife habitats and in terms of their contribution to landscape character and beauty. They also play a role in tackling climate change by trapping carbon and can provide a sustainable energy source. Local planning authorities should seek to protect trees, groups of trees and areas of woodland where they have natural heritage value or contribute to the character or amenity of a particular locality. Ancient and semi-natural woodlands are irreplaceable habitats of high biodiversity value which should be protected from development that would result in significant damage."

Paragraph 5.2.10: "Local planning authorities should, as appropriate, make full use of their powers to protect and plant trees to maintain and improve the appearance of the countryside and built up areas."

Furthermore, the UK Biodiversity Action Plan (UKBAP) includes objectives to conserve, and, where practicable, enhance: the quality and range of wildlife habitats and ecosystems; the overall populations and natural ranges of native species; internationally important and threatened species, habitats and ecosystems; species, habitats and natural and managed ecosystems characteristic of local areas; and biodiversity of natural and semi-natural habitats where this has been diminished over recent decades.

Environment (Wales) Act 2016

The Environment (Wales) Act Section 6 duty, or the Biodiversity Duty, requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems. In fulfilling this duty, planning authorities must have regard to the list of habitats and species of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2016.

The Section 6 duty requires that developments should not be permitted which result in net loss of value to biodiversity, and must seek to achieve biodiversity net gain. Where net loss cannot be achieved through avoidance or mitigation, compensation is required but it should be noted that ancient woodland cannot be compensated for.

National Planning Policy Wales (2021)

The primary objective of PPW is to ensure the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation.

Planning Policy Wales (PPW) Edition 11 - 24th Feb 2021 states that planning authorities must follow a stepwise approach to maintain and enhance biodiversity and build resilient ecological networks by ensuring that any adverse environmental effects are firstly avoided, then minimized, mitigated, and as a last resort compensated for; enhancement must be secured wherever possible. The first priority for planning authorities is to avoid damage to biodiversity and ecosystem functioning. Where there may be harmful environmental effects, planning authorities will need to be satisfied that any reasonable alternative sites that would result in less harm, no harm or gain have been fully considered.

Appendix 3: Protected and Invasive Species Legislation

Birds

All wild British birds (while nesting, building nests and sitting on eggs), their nests and eggs (with certain limited exceptions) are protected by law under Section 1 of the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000. Included in this protection are all nests (at whatever stage of construction or use) and all dependent young until the nest is abandoned and the young have fledged and become independent. Particularly rare species such as barn owl are listed on Schedule 1 which gives them additional protection from disturbance whilst nest building, whilst near a nest with eggs or young, or from disturbing the dependent young.

Bats

All species of bats and their roosting sites are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019. All species of UK bats are designated as ‘European protected species’. Seven species of bat (soprano pipistrelle (*Pipistrellus pygmaeus*), barbastelle (*Barbastella barbastellus*), Bechstein’s (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auritus*), lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe bats (*Rhinolophus ferrumequinum*)) are listed under Section 7 of the Environment (Wales) Act 2016 as being of principal importance for maintaining and enhancing biodiversity in Wales.

In Neath Port Talbot County Borough Council, bats are also afforded protection under Policy EN 5 which states that “Development proposals that would affect Regionally Important Geodiversity Sites (RIGS), Local Nature Reserves (LNRs), Sites of Interest for Nature Conservation (SINCs), sites meeting SINC criteria or sites supporting Local Biodiversity Action Plan (LBAP) or S42 habitats or species will only be permitted where: 1. They conserve and where possible enhance the natural heritage importance of the site; or 2. The development could not reasonably be located elsewhere, and the benefits of the development outweigh the natural heritage importance of the site”.

Great Crested Newt

Great Crested Newt is a ‘European protected species’ afforded full protection under both UK and European legislation. This protection extends to the habitats which support great crested newt and it is generally assumed that the species might be present in terrestrial habitats up to 0.5km²⁴ of a breeding pond, depending on habitat quality, connectivity and population size. The great crested newt is a priority

²⁴ Great Crested Newts have been recorded travelling long distances: 1.3km within a 7-week period by an immature individual great crested newt (Kupfer 1998, detailed in Jehle et al 2011); 250m in a study by Beebee and Griffiths (2000) and 120-360m in a study by Amtzen and Tenuis (1993). In addition, a study by Duff (1989) found that over half of a population overwintered in an area more than 120m away from the main breeding pond. However, long-distance movement of great crested newt is rare and most studies indicate that much shorter distances are typical (Jehle et al 2011). As a general rule, suitable habitats within 250m of a breeding pond are likely to be used most frequently (English Nature 2001).

species in Wales Under Section 7 of the Environment (Wales) Act 2016.

It is also included in the Neath Port Talbot County Borough Council Local Biodiversity Action Plan.

Dormice

Dormice are a 'European protected species' and afforded full protection under both UK and European legislation. Dormice are listed under section 7 of the Environment (Wales) Act 2016 as being of principal importance for maintaining and enhancing biodiversity in Wales. Since 2000, the UK population has declined by over a half (51%), decreasing on average by 3.8% per year (PTES, 2019). It is included in the Neath Port Talbot County Borough Council Local Biodiversity Action Plan.

Otters

Otters are designated as 'European Protected Species'. Their breeding sites or resting places²⁵ are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) [CHSAEU] Regulations 2019. Otter is a priority species in Wales Under Section 7 of the Environment (Wales) Act 2016.

Works affecting otter are subject to licensing procedures by NRW.

Water Voles

Water voles are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which prohibits the deliberate killing or injury of individuals, damaging, destroying or blocking access to their places of protection (either intentionally or through ignorance), disturbing them in a place of shelter, or possessing them. The habitats of common water voles are not specifically protected. Water voles are listed as a priority species in Wales Under Section 7 of the Environment (Wales) Act 2016.

Badgers

Badgers are protected under the Protection of Badgers Act 1992. Protection applies both to the animal itself and to its nesting burrows (setts), and current interpretation of the Act also confers some protection to key foraging areas.

Reptiles

With the exception of smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) (which are afforded greater protection), common reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). They are given so-called 'partial protection', which prohibits the deliberate killing or injury of individuals. The habitats of common reptiles are not specifically protected. These species are listed as priority species in Wales under Section 7 of the Environment (Wales) Act 2016.

²⁵ Resting places are defined as 'areas that are essential to sustain an animal or group of animals when they are not active' (Anon 2007).

Hedgehogs

Hedgehogs are listed as a Red List mammal species in Britain and are afforded partial protection under the Wildlife and Countryside Act (1981) and are listed as priority species under Section 7 of the Environment (Wales) Act 2016. Additionally, hedgehogs are listed a priority species listed under the UK Biodiversity Action Plan in light of dramatic population declines. The legislation afforded to hedgehogs in Section 7 of the Environment (Wales) Act 2016 means that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. In effect, 'conserving biodiversity' includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.

They are also listed in the Neath Port Talbot County Borough Council LBAP in light of dramatic population declines.

The legislation afforded to hedgehogs in the Environment Wales Act (2016) requires all public bodies including Local Authorities to have regard for biodiversity conservation²⁶ when carrying out their functions.

Japanese Knotweed

Japanese knotweed is listed under Schedule 9 of the Wildlife and Countryside Act (1981), as amended. This act specifically prohibits the reckless or deliberate spreading of this species. Japanese knotweed will require eradication from the site.

Himalayan Balsam

Himalayan Balsam is listed under Schedule 9 of the Wildlife and Countryside Act (1981), as amended. This act specifically prohibits the reckless or deliberate spreading of this species. Himalayan Balsam will require eradication from the site.

²⁶ Biodiversity conservation in respect to hedgehogs is interpreted as a commitment to restoring or enhancing their population.

Acer Ecology

Appendix 4: Species Recorded

All species recorded by Acer Ecology, 2021

Taxonomic Name	Common Name	W	LM	CG	LDA	PMG	PIL	TF	Status
Trees and Shrubs									
<i>Acer pseudoplatanus</i>	Sycamore								Alien
<i>Alnus incana</i>	Grey alder								Alien
<i>Betula pendula</i>	Silver birch								
<i>Cornus sanguinea</i>	Dogwood								
<i>Hypericum calycinum</i>	Rose of Sharon								Alien
<i>Rubus fruticosus</i> agg.	Bramble								
Herbaceous Plants									
<i>Achillea millefolium</i>	Yarrow								
<i>Aegopodium podagraria</i>	Ground-elder								Alien
<i>Agrostis stolonifera</i>	Creeping bent								
<i>Anthoxanthum odoratum</i>	Sweet vernal-grass								
<i>Arrhenatherum elatius</i>	False oat-grass								
<i>Bellis perennis</i>	Daisy								
<i>Carex pendula</i>	Pendulous sedge	W				PMR			
<i>Centaurea nigra</i>	Common knapweed		LM	CG					Rct sap
<i>Cirsium vulgare</i>	Spear thistle								
<i>Dactylis glomerata</i>	Cock's-foot								
<i>Elytrigia repens</i>	Couch grass								
<i>Eupatorium cannabinum</i>	Hemp agrimony					PMR			
<i>Fallopia japonica</i>	Japanese knotweed								Wca 9
<i>Festuca rubra</i>	Red fescue								
<i>Geranium robertianum</i>	Herb-Robert								
<i>Geum urbanum</i>	Wood avens								
<i>Hedera helix</i>	Ivy								
<i>Heracleum sphondylium</i>	Hogweed								
<i>Holcus lanatus</i>	Yorkshire fog								
<i>Impatiens glandulifera</i>	Himalayan balsam								Wca 9
<i>Asplenium scolopendrium</i>	Hart's-tongue fern								
<i>Plantago lanceolata</i>	Ribwort plantain								
<i>Ranunculus acris</i>	Meadow buttercup								
<i>Ranunculus repens</i>	Creeping buttercup								
<i>Rumex crispus</i>	Curled dock								
<i>Senecio jacobaea</i>	Common ragwort								
<i>Taraxacum officinale</i> agg.	Dandelion								
<i>Urtica dioica</i>	Common nettle								
<i>Vicia sativa</i>	Common vetch								

Acer Ecology

'Habitat Indicator Species' Totals (Wales Biodiversity Partnership 2008³²)		1	1	1		2			
		W	LM	CG	LDA	PMR	PIL	TF	

'Primary' and 'Contributory' Totals (Wales Biodiversity Partnership 2008)		0				0			
		Primary Species				Contributory Species			

Key to Indicator Species (Wales Biodiversity Partnership 2008)

W - Woodland, LM – Lowland meadow, CG - Calcareous Grassland, LDA – Lowland Dry Acid Grassland, PMR Purple moor-grass and rush pasture, PIL – Post Industrial Land, TF Species-rich Tillage Fields and Margins

PS – Primary Species, CS – Contributory Species

WCA 9 – Schedule 9 species

Appendix 5: Definitions of Site Value

International Value

Internationally designated or proposed sites such as Ramsar Sites, Special Protection Areas, Biosphere Reserves and Special Areas of Conservation, or non-designated sites meeting criteria for international designation. Sites supporting populations of internationally important species or habitats.

National Value

Nationally designated sites such as Sites of Special Scientific Interest (SSSIs), or non-designated sites meeting SSSI selection criteria (NCC 1989), National Nature Reserves (NNRs) or Nature Conservancy Review (NCR) Grade 1 sites, viable areas of key habitats 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.

Regional Value

Sites containing viable areas of threatened habitats listed in a regional Biodiversity Action Plan, comfortably exceeding Site of Importance for Nature Conservation criteria, but not meeting SSSI selection criteria. Sites supporting regionally significant areas of BAP habitats or large and viable populations 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.

County Value/District Value

Site identified as a Site of Importance to Nature Conservation (SINC) at the district level; meeting South Wales Wildlife Sites Partnership (SWWSP) 2004 published designation criteria, but falling short of SSSI designation criteria, whether designated as a SINC or not. Ancient woodlands and sites supporting regionally significant areas of UK BAP habitat. Large scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/ LBAP or threatened species (other than badger).

High Local

Habitats which just fail to meet Regional value criteria, but which appreciably enrich the ecological resource of the locality. Sites supporting species which are notable or uncommon in the county; or species which are uncommon, local or habitat-restricted nationally, and which might not otherwise be present in the area. Moderate scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/LBAP or threatened species.

Local Value

Old hedges, woodlands, ponds, significant areas of species-rich grassland, small scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/LBAP or threatened species. Undesignated sites or features which appreciably enrich the habitat resource in the context of their immediate surroundings, parish or neighbourhood (e.g. a species-rich hedgerow). Rare or uncommon species may occur but are not restricted to the site or critically dependent upon it for their survival in the area.

Site Value (within the immediate zone of influence)

Low-grade and widespread habitats. Woodland plantations, structured planting, small areas of species-rich grassland and other species-rich habitats not included in the UK or Local BAP.

Negligible

No apparent nature conservation value.

Appendix 6: Guidelines for Assessing Potential Suitability Proposed Development Site for Bats

Suitability	Communing and Foraging Habitat
Negligible	Negligible habitat features on-site likely to be used by commuting and foraging bats.
Low	<u>Communing Habitat</u> Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. <u>Foraging Habitat</u> Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	<u>Communing Habitat</u> Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. <u>Foraging Habitat</u> Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	<u>Communing Habitat</u> Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. <u>Foraging Habitat</u> High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. <u>Proximity to Known Bat Roosts</u> Site is close to and connected to known roosts.
Suitability	Description of Roosting Habitat
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection appropriate conditions ²⁷ and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity) or hibernation ²⁸ .
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status ²⁹ (with respect to roost type only) the assessments in this table are made irrespective of conservation status, which is established after presence is confirmed.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

²⁷ For example, in terms of temperature, humidity, height above ground levels, light levels or levels of disturbance.

²⁸ Evidence from the Netherlands, shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for large numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.

²⁹ 'High roost status' is not defined within Collins, 2016. Acer Ecology Ltd. interpret maternity, hibernation, swarming sites, mating sites, and satellite roosts as being of 'high roost status' and exclude day roosts, night roosts, feeding roosts, transitional/occasional roosts from this definition.