# Preliminary Ecological Appraisal

## Ffordd Maelgwn, Llandudno Junction, Conwy, LL31 9PN

## Environment Roads & Facilities

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**Industry Guidelines and Standards**

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

**Proportionality**

> The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.
>
> This approach is enshrined in Government planning guidance, for example, paragraph 174 of the National Planning Policy Framework for England.
>
> The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.
>
> (BS 42020, 2013)

## Executive Summary

Arbtech Consulting Limited was instructed by Environment Roads & Facilities to undertake a Preliminary Ecological Appraisal (PEA) at Ffordd Maelgwn, Llandudno Junction, Conwy, LL31 9PN (hereafter referred to as "the site"). The survey was required to inform a planning application for the construction of a new waste transfer station (hereafter referred to as "the proposed development").

**The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 5 of this report.**

| ***Feature*** | ***Foreseen impacts*** | ***Recommendations***<br>*Measures required to adhere to guidance, legislation and planning policies.* |
|---|---|---|
| ***Foraging bats***<br>There are no habitats on the site which could be used by bats for foraging or commuting, however the adjacent woodland may offer suitable bat foraging habitat. | The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats.<br><br>The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas. | A low impact lighting strategy will be adopted for the site during and post-development. |
| ***Hedgehogs***<br>It is anticipated that hedgehogs are absent from site due to a lack of suitable habitat however given the adjacent suitable habitat hedgehogs may commute across the site. | Construction activities could result in the death or injury of hedgehogs, if present. | A precautionary working method will be implemented during construction. |

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## 1.0 Introduction and Context

### *1.1 Background*

Arbtech Consulting Limited was instructed by Environment Roads & Facilities to undertake a Preliminary Ecological Appraisal (PEA) at Ffordd Maelgwn, Llandudno Junction, Conwy, LL31 9PN (hereafter referred to as "the site"). The survey was required to inform a planning application for the construction of a new waste transfer station (hereafter referred to as "the proposed development"). A plan showing the proposed development is provided in Appendix 1.

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development. No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author's knowledge, by any other consultancy.

### *1.2 Site Context*

The site is located at National Grid Reference SH 79631 77667 and has an area of approximately 0.75ha comprising bare ground with ephemeral vegetation and hard standing. It is surrounded by roads and industrial units, with wooded areas across the landscape. A large nature reserve lies to the south of the site. The River Conwy also lies to the west of the site.

A site location plan is provided in Appendix 2.

### *1.3 Scope of the Report*

This report describes the baseline ecological conditions at the site, evaluates habitats within the survey area in the context of the wider environment and describes the suitability of those habitats for notable or protected species. It identifies possible ecological constraints as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken to record baseline information on the site and surrounding area including habitat types and their suitability for notable or protected species.
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act) have been identified.
- Potential impacts on features of value, as a result of the proposed development, have been identified.
- Recommendations for further surveys and mitigation have been made.
- Opportunities for the enhancement of the site for biodiversity have been set out.

## 2.0 Methodology

### *2.1 Desk Study*

The desk study included a 2km radius review of the magic.gov.uk database for statutory designated sites. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

### *2.2 Field Survey*

The survey was undertaken by Mel Reid (accredited agent Natural Resource Wales Bat Licence Number: S091515/1) on 20th February 2023.

An extended habitat survey was undertaken, following the methodology set out in *UK Habitat Classification User Manual* (UK Habitat Classification Working Group, 2018). All land parcels are described and mapped and, where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure and management. Botanical species lists were compiled with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).

During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species.

### *2.3 Limitations*

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

## 3.0 Results and Evaluation

### *3.1 Designated Sites*

Details of any statutory designated sites within a 2km radius of the site, including their reasons for notification, are provided in Table 1 below.

*Table 1: Statutory designated sites within 2km radius of the site*

| ***Designated site name*** | ***Distance from site (approx.)*** | ***Reasons for notification from Natural Resources Wales*** |
|---|---|---|
| Aber Afon Conwy Site of Special Scientific Interest (SSSI) | 350m south-west | Aber Afon Conwy is of special interest for its marine and terrestrial invertebrate biology. The tidal reach of the site extends approximately 16 kilometres, encompassing Conwy Bay between Penmaenbach Point and Great Orme's Head at its seaward limit, to its upstream boundary south of Tal y Cafn. The shoreline is backed by natural rock and boulder clay cliff, sand dune, salt marsh and woodland, with artificial substrate and sea defence walls forming the boundary throughout the remainder of the estuary. |
| Creuddyn SSSI | 1050m north-east | Creuddyn is of special interest for its botanical and entomological features; semi-natural woodland, calcareous grassland, rare vascular plant assemblage including spiked speedwell Veronica spicata and grassland invertebrate assemblage. |
| Coedwigoedd Penrhyn Creuddyn Special Area of Conservation (SAC) | 1050m north-east | Designated due to the presence of yew-dominated woodland, mixed woodland on base-rich soils associated with rocky slopes and dry grassland and scrublands on chalk or limestone. |
| Benarth Wood SSSI | 930 south-west | A mixed deciduous woodland on Silurian rocks adjacent to the Conwy Estuary and receiving a low rainfall. The wood is ungrazed and has a diverse ground flora and adequate tree regeneration. Oak Quercus petraea dominates the estuary edge but is elsewhere co-dominant with Sycamore Acer pseudoplatanus, or Beech Fagus sylvatica. A range of shrubs comprise the understorey including Elder Sambucus nigra, Holly Ilex aquifolium and Hazel Corylus avellana. |
| Cadnant SSSI | 1700m west | Cadnant is of special interest for its geology, a complete sequence through the Cadnant Shales. The site consists of rock exposures in a railway cutting immediately outside the town walls of Conwy. |
| Chwareli a Glaswelltir Degannwy SSSI | 1690m north-west | Chwareli a Glaswelltir Degannwy is of special interest for its geological and biological features: exposures of fossiliferous late Ordovician mudstone and sandstone rocks, maiden pink Dianthus deltoides, small-leaved sweet briar Rosa agrestis and a rare vascular plant assemblage |
| Bwlch Mine SSSI | 1900m north-west | Bwlch Mine is situated on the edge of The Vardre, a small hill to the east of Deganwy, in North Wales. The mine, now long since closed down, was opened to exploit the antimony mineralisation within igneous rocks of Ordovician age |

### *3.2 Field Survey Results*

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 2.

*Table 2: Weather conditions during the survey*

| Date: 20/02/2023 | |
|---|---|
| Temperature | 11°C |
| Humidity | 78% |
| Cloud Cover | 60% |
| Wind | 6mph |
| Rain | None |

**Habitats and Flora**

The following habitats are present within and adjacent to the site:

- Open mosaic habitats on previously developed land (u1a)
- Developed land; sealed surface (u1b)
- Buildings (u1b5)
- Built linear features (u1e)
- Other lowland mixed deciduous woodland (w1f7)

A description and photograph of each habitat is provided in Table 3.

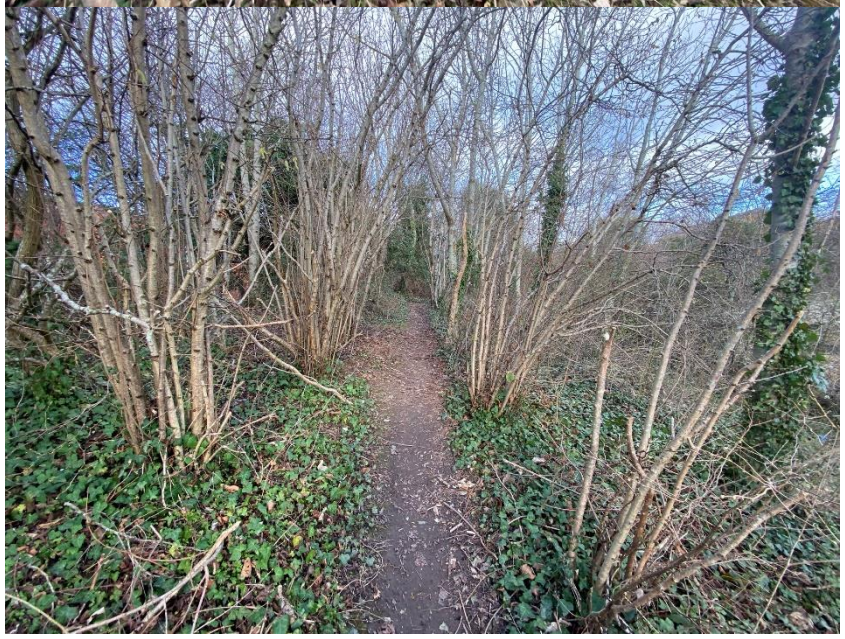
No protected or non-native invasive plant species (as listed under Schedules 8 or 9 of the Wildlife and Countryside Act 1981) were identified on the site.

*Table 3: Description and photographs of habitats within and adjacent to the site*

| ***Habitat type*** | ***Habitat description*** | ***Photograph*** |
|---|---|---|
| Open mosaic habitats on previously developed land | The site consists of an area of bare ground with emphemeral growth. Species present include dandelion *Taraxacum sp.*, cock's-foot *Dactylis glomerata,* sphagnum moss, ivy *Hedera helix*, common chickweed *Stellaria media,* ribwort plantain *Plantago lanceolata,* oxeye daisy *Leucanthemum vulgare*, common thistle *Cirsium vulgare,* common mullein *common mullein,* narrow-leaved ragwort *Senecio inaequidens,* buddleia *Buddleja davidii,* common ragwort *Jacobaea vulgaris,* bristly oxtongue *Helminthotheca echioides,* white clover *Trifolium repens,* creeping buttercup *Ranunculus repens,* crown vetch *Securigera varia,* sticky chickweed *Cerastium glomeratum*. |   |

| | | |
|---|---|---|
| Developed land; sealed surface | There is an area of hard standing at the south-eastern corner of the site as well as tarmac road along the southern site boundary. |   |

| | | |
|---|---|---|
| Buildings | There are a number of temporary metal cabin structures at the south-eastern corner of the site. |  |
| Built linear features | There is a metal chain-link fence surrounding the site separating it from the adjacent woodland. |  |

| | | |
|---|---|---|
| Other lowland mixed deciduous woodland | Adjacent to the northern and western site boundaries is woodland. Species present across the woodland include silver birch *Betula pendula,* ash *Fraxinus excelsior*, larch *Larix decidua,* willow *Salix sp.,* cherry *Prunus sp.,* hazel *Corylus avellana* and scots pine *Pinus sylvestris*. Tree ages vary between young to semi-mature, with the occasional mature tree present. |   |

**Fauna**

An assessment of the suitability of the site for protected or notable species is provided in Table 4.

*Table 4: Assessment of the suitability of the site for protected or notable species*

| ***Species*** | ***Assessment of suitability*** |
|---|---|
| Amphibians | There are no ponds present on site however a search of the Magic.gov.uk database and aerial image search of a 500m radius around the site revealed six smaller ponds and two large water bodies to the south of the site (which fall within the RSPB reserve to the south of the site). The closest of the water bodies is approximately 280m from the site, reducing the likelihood of amphibian migration from the water bodies to the development site. There is a major road between the water bodies and the development site further reduced the likelihood of amphibian migration from these waster bodies to the site. There is also a lack of suitable terrestrial amphibian habitat present on site due to a lack of taller denser vegetation offering suitable refuge areas. |
| Reptiles | There is no suitable reptile habitat on site given the lack of taler denser vegetation offering suitable refuge for these species. The woodland adjacent to the site will likely offer suitable reptile habitat. This woodland also provides good connectivity to further suitable habitats across the wider landscape. |
| Badgers | No badger setts were present on site or within a 30m radius. The site itself offers no suitable badger sett excavation habitat however the adjacent may be utilised by badgers for sett excavation. There was no suitable badger foraging habitat present on site. |
| Bats | There are no structures present on site suitable for roosting bats. There are currently temporary metal cabins present on site which are considered negligible for roosting bats. One tree is located on site which was also considered negligible for roosting bats. There is no suitable bat foraging or commuting habitat present on site, however the adjacent woodland is likely to provide good-quality bat foraging habitat. |
| Hazel Dormouse | There are no suitable hazel dormouse habitats present on site and the site lies out of the known current range of hazel dormice. |
| Hedgehog | The site does not offer any suitable hedgehog habitat however the adjacent woodland habitat may offer refuge for this species as well as connectivity to the wider landscape. |
| Otter | There are no water courses on or connected to the site. There are also no riparian habitats present on site or within an influencing distance. |
| Water Vole | There are no water courses or water bodies present on site. The site provides no suitable terrestrial habitat for water vole. |
| Birds | There are no suitable bird nesting habitats present on site due to a lack of taller vegetation such as scrub or trees. The adjacent woodland is likely to offer suitable bird nesting habitat. |

## 4.0 Conclusions, Impacts and Recommendations

### *4.1 Informative Guidelines*

A summary of the relevant legislation and planning policies is provided in Appendix 4.

**Likelihood of the Presence of Protected Species**

Where physical evidence of the presence of protected species is indeterminate during the survey, the habitats on site are evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Where this report supports a planning application, the ecological interest of the study area (i.e. the area covered by the desk study and field survey) and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity.

### *4.2 Evaluation*

Taking the desk study and field survey results into account, Table 5 presents an evaluation of the ecological value of the site and also details any ecological constraints identified in relation to the proposed development which will comprise the construction of a new waste transfer station.

*Table 5: Evaluation of the site and any ecological constraints*

| ***Ref*** | ***Summary of Survey Findings*** | ***Foreseen Impacts*** | ***Recommendations*** *Measures required to adhere to guidance, legislation and planning policies.* | ***Biodiversity Enhancements*** *The Local Planning Authority has a duty to ask for enhancements under the PPW (2021)* |
|---|---|---|---|---|
| Designated sites | The site is not subject to any statutory or non-statutory designation.<br><br>There are seven statutory sites within 2km of the site, the closest being Aber Afon Conwy located 350m from the site.<br><br>The presence of non-statutory designated sites within 2km of the site cannot be established without data from COFNOD. | No impacts to designated sites are anticipated due to the small scale and distance of the proposed development from such sites (where known) as well as the urban location of the site with surrounding physical barriers. | None. | None. |
| Habitats and flora | There are no notable habitats within the site but deciduous woodland is adjacent to he northern and western site boundaries.<br><br>Habitats within the site are common and widespread and have low ecological value.<br><br>No protected or notable plant species were recorded during the survey. | No direct impacts to any notable habitats will occur as a result of the proposed development. However, due to the proximity of the site to woodland, indirect effects such as pollution or tree damage could occur during construction. | Best practice measures to minimise the possibility of pollution and tree damage must be implemented during construction. | None. |

| | | | | |
|---|---|---|---|---|
| Amphibians | It is anticipated that the amphibians are likely absent from site due to a lack of suitable terrestrial habitat on site as well as a lack of connectivity to nearby water bodies. | No impacts are anticipated on amphibians, including great crested newt, as a result of the proposed development. | None. | None. |
| Reptiles | It is anticipated that reptiles are likely absent from site due to a lack of suitable habitat. | No impacts are anticipated on reptiles as a result of the proposed development. | None. | None. |
| Roosting bats | The site offers no suitable bat roosting habitat due to a lack of trees or suitable buildings/structures. | Bats are very unlikely to be roosting on site and as such, there are not anticipated to be any impacts on bats in this location as a result of the proposed development. | None. | None. |
| Foraging and commuting bats | There are no habitats on the site which could be used by bats for foraging or commuting, however the adjacent woodland may offer suitable bat foraging habitat. | The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats.<br><br>The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas. | A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures:<br>• Use narrow spectrum light sources to lower the range of species affected by lighting.<br>• Use light sources that emit minimal ultra-violet light.<br>• Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin.<br>• Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal.<br><br>Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to | None. |

| | | | | |
|---|---|---|---|---|
| | | | ensure that light is directed to the intended areas only.<br><br>External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on.<br><br>Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available. | |
| Badger | It is anticipated that badgers are absent from site. | No impacts are anticipated on badgers as a result of the proposed development. | None. | None. |
| Hazel dormouse | It is anticipated that hazel dormice are absent from site. | No impacts are anticipated on hazel dormice as a result of the proposed development. | None. | None. |
| Hedgehog | It is anticipated that hedgehogs are absent from site due to a lack of suitable habitat however given the adjacent suitable habitat hedgehogs may commute across the site. | Construction activities could result in the death or injury of hedgehogs, if present. | A precautionary working method will be implemented during construction, including the following measures:<br>• Site clearance will be undertaken outside of the hedgehog hibernation season (November to March) insofar as is possible.<br>• A toolbox talk will be given to contractors regarding the possible presence of hedgehogs at the site.<br>• A pre-commencement inspection of the site will be undertaken for hedgehogs.<br>• Heras fencing will be erected around the working area to prevent encroachment into retained habitats where hedgehogs could be present. | None. |

| | | | | |
|---|---|---|---|---|
| | | | • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.<br>• The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.<br>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.<br>• If a hedgehog is found then this should be moved by gloved hand to an undisturbed and sheltered area of the site or adjacent land. | |
| Otter | It is anticipated that otters are absent from site. | No impacts are anticipated on otters as a result of the proposed development. | None. | None. |
| Water vole | It is anticipated that water vole are absent from site. | No impacts are anticipated on water vole as a result of the proposed development. | None. | None. |
| Birds | There are no suitable bird nesting habitats on site. | No impacts are anticipated on nesting birds as a result of the proposed development. | None. | None. |

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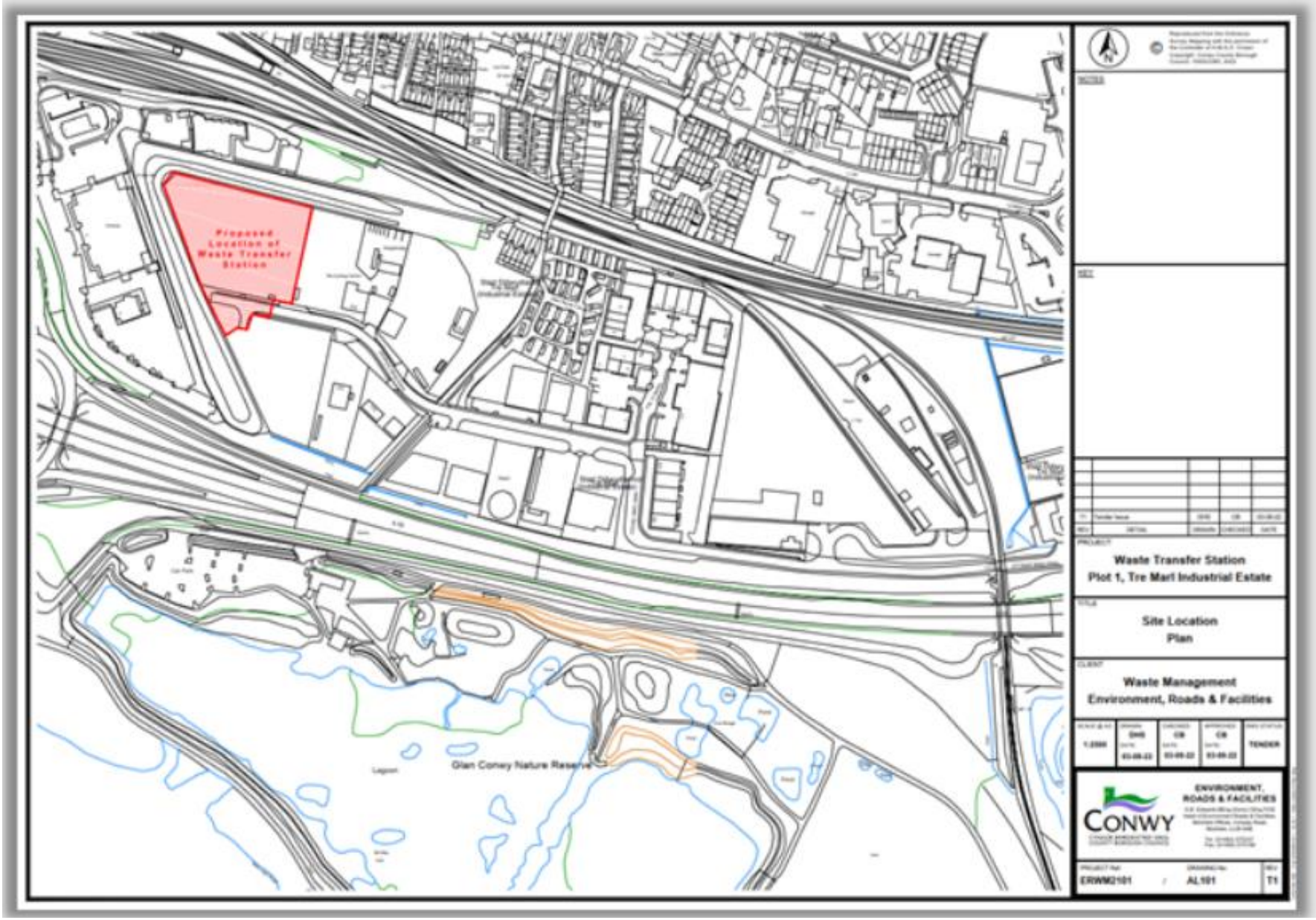
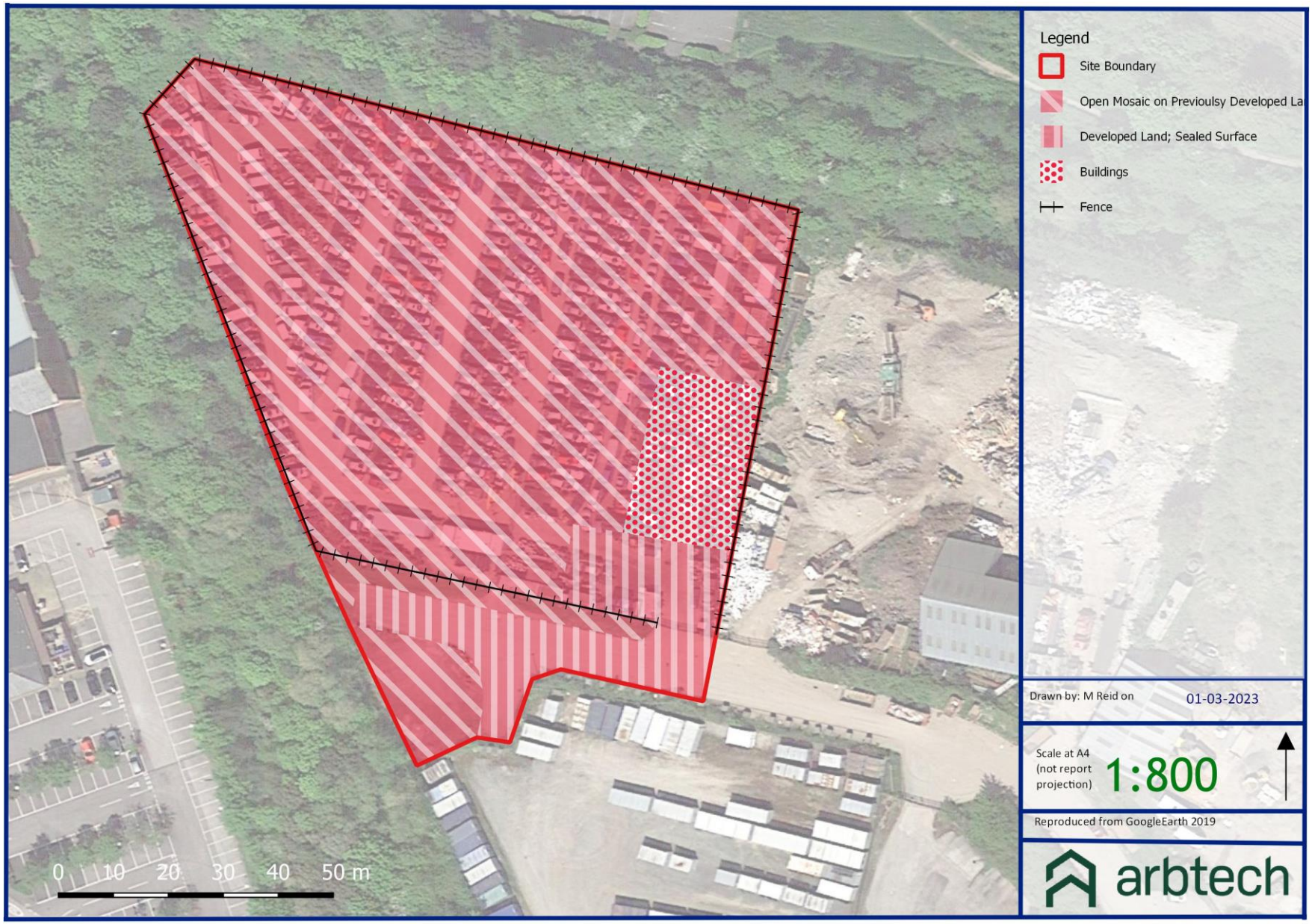
## Appendix 1: Proposed Development Plan



## Appendix 2: Site Location Plan

## Appendix 3: Habitat Survey Plan



# Appendix 4: Legislation and Planning Policy

**LEGAL PROTECTION**

**National and European Legislation Afforded to Habitats**

***International Statutory Designations***

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds (the Wild Birds Directive) respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe. Over 1000 animal and plant species, as well as 200 habitat types, listed in the directive's annexes are protected in various ways:

**Annex II species** (about 900): core areas of their habitat are designated as Sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species.

**Annex IV species** (over 400, including many Annex II species): a strict protection regime must be applied across their entire natural range, both within and outside Natura 2000 sites.

**Annex V species** (over 90): their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status.

SPAs are classified under Article 2 of the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds both for rare bird species (as listed on Annex I) and for important migratory species.

The Conservation of Habitats and Species Regulations 2017 (as amended) form the legal basis for the implementation of the Habitats and Birds Directives in terrestrial areas and territorial waters out to 12 nautical miles in England and Wales (including the inshore marine area) and to a limited extent in Scotland and Northern Ireland.

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as "*areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres*". However, they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended 01.04.1996) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

***National Statutory Designations***

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally.

***Local Statutory Designations***

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

***Non- Statutory Designations***

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

**The Hedgerow Regulations 1997**

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

**National and European Legislation Afforded to Species**

***The Conservation of Habitats and Species Regulations 2017 (as amended)***

The Conservation of Habitats and Species Regulations 2017 (as amended) aims to promote the maintenance of biodiversity by requiring the Secretary of State to take measures to maintain or restore wild species listed within the Regulations at a favourable conservation status.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

***The Wildlife and Countryside Act (WCA) 1981 (as amended)***

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979, implemented 1982) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

***Badgers***

Badgers *Meles meles* are protected under The Protection of Badgers Act 1992 which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

Effects on development works:

A development licence will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for any development works likely to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agencies to define what would constitute a licensable activity. It is no possible to obtain a licence to translocate badgers.

***Birds***

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- Intentionally or recklessly obstruct or prevent any wild bird from using its nest (Scotland only)

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and are commonly referred to as "Schedule 1" birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking
- In Scotland only, intentional or reckless harassment

Effects on development works:

Works should be planned to avoid the possibility of killing or injuring any wild bird or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

***Amphibians and Reptiles***

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of reptiles are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

***Water Voles***

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection

- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

Effects on development works:
If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

***Otters***

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

***Bats***

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)
- Deliberate disturbance of bat species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works are likely to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

***Hazel Dormice***

Hazel dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require a European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales (NB: Hazel Dormouse are entirely absent from Scotland)). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

***White Clawed Crayfish***

There is a considerable amount of legislation in place in an attempt to protect the White-clawed crayfish *Austropotamobius pallipes*. This species is listed under the European Union's (EU) Habitat and Species Directive and is listed under Schedule 5 of the Wildlife and Countryside Act (1981). This makes it an offence to:

- Protected against intentional or reckless taking
- Protected against selling, offering or advertising for sale, possessing or transporting for the purpose of sale

It is also classified as Endangered in the IUCN Red List of Endangered Species. As a result of this and other relevant crayfish legislation such as the Prohibition of Keeping of Live Fish (Crayfish) Order 1996, a series of licences are needed for working with White-clawed and non-native crayfish. These are:

- A licence to handle crayfish (therefore survey work) in England
- A licence for the keeping of crayfish in England and Wales with an exemption for Signal crayfish (England).
- People in the post-code areas listed with crayfish present prior to 1996 do not need to apply for consent for crayfish already established. It does not, however, allow any new stocking of non-native crayfish into waterbodies. Consent for trapping of non-native crayfish for control or consumption is most likely to be granted in Thames and Anglian regions in the areas with "go area" postcodes.
- Harvesting of crayfish is prohibited in much of England and in any part of Scotland and Wales.

Effects on development works:

The relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

**Wild Mammals (Protection Act) 1996**

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

**Legislation Afforded to Plants**

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof
- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

Effects on development works:

A European Protected Species Licence (EPSL) will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for works which are likely to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

***Invasive Species***

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England and Wales to plant or cause to grow in the wild due to their impact on native wildlife. Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

Effects on development works:

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site, however, it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

***Injurious weeds***

Under the Weeds Act 1959 any landowner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

- Spear thistle *Cirsium vulgare*
- Creeping thistle *Cirsium arvense*
- Curled dock *Rumex crispus*
- Broad-leaved dock *Rumex obtusifolius*
- Common ragwort *Senecio jacobaea*

Effects on development works:

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

**NATIONAL PLANNING POLICY (WALES)**

***Environment (Wales) Act 2016 and the Biodiversity Duty***

The Environment (Wales) Act 2016 introduces a new biodiversity duty, which highlights biodiversity as an essential component of ecosystem resilience. This new duty replaces the biodiversity duty in the Natural Environment and Rural Communities Act 2006 (referred to as the NERC Act). Part 1 of the Act deals with Sustainable management of natural resources including Biodiversity and Resilience of Ecosystems Duty. The Environment Act enhances the current NERC Act duty to require all public authorities, when carrying out their functions in Wales, to seek to "maintain and enhance biodiversity" where it is within the proper exercise of their functions. In doing so, public authorities must also seek to "promote the resilience of ecosystems". As under the NERC Act the new duty will apply to a range of public authorities such as the Welsh Ministers, local authorities, public bodies and statutory undertakers. This ensures that biodiversity is an integral part of the decisions that public authorities take in relation to Wales. It also links biodiversity with the long-term health and functioning of our ecosystems, therefore helping to align the biodiversity duty with the framework for sustainable natural resource management provided in the Act.

***Planning Policy Wales (2021)***

Paragraph 6.4.3 of the document refers to Biodiversity and Ecological Networks and states:

The planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement. Addressing the consequences of climate change should be a central part of

any measures to conserve biodiversity and the resilience of ecosystems. Information contained in SoNaRR, Area Statements and species records from Local Environmental Record Centres should be taken into account. Development plan strategies, policies and development proposals must consider the need to:

- support the conservation of biodiversity, in particular the conservation of wildlife and habitats;
- ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;
- ensure statutorily and non-statutorily designated sites are properly protected and managed;
- safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and
- secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.

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

Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. Planning authorities must also take account of and promote the resilience of ecosystems, in particular the following aspects:

a) Diversity between and within ecosystems;
b) The connections between and within ecosystems;
c) The scale of ecosystems;
d) The condition of ecosystems (including their structure and functioning); and
e) The adaptability of ecosystems.

In fulfilling this duty, planning authorities must have regard to:

a) The list of habitats of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2016;
b) The State of Natural Resources Report (SoNaRR), published by NRW; and
c) Any Area Statement that covers all or part of the area in which the authority exercises its functions.

Planning Authorities should also refer to up to date ecological survey information (where appropriate).

A proactive approach towards facilitating the delivery of biodiversity and resilience outcomes should be taken by all those participating in the planning process. In particular, planning authorities should demonstrate that they have sought to fulfil the duties and requirements of Section 6 of the Environment Act by taking all reasonable steps to maintain and enhance biodiversity in the exercise of their functions.

The broad framework for implementing the duty and building resilience through the planning system includes addressing:

- Diversity: to ensure mechanisms are in place to minimise further loss and that circumstances allow for species' populations to expand and recolonise their natural range (former range) or adapt to future change. This means development should provide a net benefit for biodiversity, and at the very least, with no significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity;
- Extent: to ensure mechanisms allow for the maintenance of existing assets and networks and promote the restoration of damaged, modified or potential habitat and the creation of new habitat. This means that planning choices should incorporate measures which seek the creation and restoration of green networks and linkages between habitats and maintaining and enhancing other green infrastructure features and networks;
- Condition: Ecosystems need to be in a healthy condition to function effectively, to deliver a range of important ecosystem services. Planning decisions should not compromise the condition of ecosystems. By taking an integrated approach to development, for example, which considers both direct and wider impacts and benefits it should be possible to make a positive contribution. Planning for the long term management of retained habitats is key to maintaining condition through for example, the use of planning obligations;
- Connectivity: to take opportunities to develop functional habitat and ecological networks within and between ecosystems and across landscapes, building on existing connectivity and quality and encouraging habitat creation, restoration and appropriate management. The opportunities could include enlarging habitat areas, developing buffers around designated sites or other biodiversity assets or corridors, including transport and river corridors, and the creation of 'stepping stones' which will strengthen the ability of habitats and ecological networks to adapt to change, including climate change; and
- Adaptability to change: primarily in the form of climate change, for both species (diversity) and ecosystems requires action to protect the extent, condition and connectivity of habitats, features and ecological networks. Development plans, planning proposals and applications which build on protecting designated sites and securing and enhancing green infrastructure will be key ways of addressing the attributes of ecosystems resilience identified in the Environment Act as well as facilitating social and economic resilience aspirations of the Well-being of Future Generations Act.

***Good Practice Guide GPG 3 (October 2015) NRW Approach to Bats and Planning***

As explained in Planning Policy Wales (Chapter 5 - Conserving and Improving Natural Heritage and the Coast), the presence of a European protected species is a material consideration for a development proposal that would be likely to result in disturbance or harm to the species or its breeding sites or resting places. Planning Policy Wales also explains that planning authorities should seek the advice of Natural Resources Wales for all planning applications likely to result in disturbance or harm to bats and should always consult them before granting permission. Local Planning Authorities address this by screening applications to identify when there is a reasonable likelihood that bats may be present and, therefore, when to require a bat survey and report that will confirm if bats are present and if they likely to be disturbed or harmed by the proposal. The overall requirement on Local Planning Authorities, Natural Resources Wales and developers is to avoid harm or disturbance to bats and their breeding sites and resting places, unless Natural Resources Wales has given a licence to allow the harm or disturbance. Natural Resources Wales may only give a licence if the requirements

for derogation are met, including that disturbance or harm to individual bats (or to their breeding sites and resting places) would not be detrimental to the maintenance of the population.