RSPB Conwy Active Travel

Llandudno Junction

Ecological Impact Assessment

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The conclusions and recommendations contained in this document are based upon information gathered by TEP and provided by third parties. Information provided by third parties and referred to herein has not been independently verified by TEP, unless otherwise expressly stated in the document.

Nothing in this report constitutes legal opinion. If legal opinion is required, the advice of a qualified legal professional should be secured.

Executive Summary

Site Details	The Scheme is located in the RSPB Conwy Reserve, Llandudno Junction, Conwy, LL31 9XZ (central grid location: SH 80236 77166). The route of the Scheme follows the northern and eastern boundary of the Reserve.
Proposals	The Scheme is for the construction of a new active travel link, comprising a footpath/cycle path between the RSPB Conwy Reserve and Glan Conwy.
Designated wildlife sites	■ Aber Afon Conwy SSSI is located 50m south from the Scheme. All other statutory wildlife sites are more than 1.3km from the Scheme. ■ There are four non-statutory local wildlife sites identified within 2km of the Scheme, with the closest being Benarth Meadows Local Wildlife Site, 1.2km West.
Important Ecological Features present within or adjacent to the site	The Scheme route passes through small areas of modified neutral grassland, semi-natural broad-leaved woodland, broad-leaved plantation woodland, bare ground/bare ground with and perennial vegetation, and crosses the Afon Ganol. Giant Hogweed, Japanese Rose and Himalayan Cotoneaster are also present adjacent to the Scheme. [redacted] and six bat roost suitable (PRF-I) trees are present within the Scheme corridor. There is also potential for other protected/notable species to be present within the site; amphibians, birds, hedgehogs, polecats, reptiles and invertebrates.

Recommendations

Construction works should be avoided over the winter months to avoid impacts on overwintering wading birds within the Aber Afon Conwy SSSI

The design of any lighting scheme (if required) and the construction needs to avoid impacts on Aber Afon Conwy SSSI and its notified features. A Sensitive Lighting Design is also required to avoid indirect impacts of lighting on nocturnal and crepuscular species.

A Construction Environmental Management Plan (CEMP) should be implemented during vegetation clearance and construction works to prevent pollution of retained habitats within and adjacent to the Scheme.

Retained trees and woodland should be protected from accidental damage during site clearance and construction. A Root Protection Zone (RPZ) has been recommended for retained trees to protect the trees, their roots and canopies in accordance with BS5837:2012.

Surveys for notable plant species and invasive plants should be undertaken at the optimal season (April – September) to confirm presence and extent.

An Invasive Species Management Plan should be produced to include measures to remove invasive species and to prevent their spread during the construction period.

[redacted]

Supervision from an Ecological Clerk of Works (ECoW) will be required during both pre and during construction to avoid impacts of protected and priority species. Removal of PRF-I grade bat roosting suitability trees will need to be supervised by a licenced ecologist. A pre- construction survey will be required for otters.

Consultation is required with the CCBC Ecologist and NRW of how to survey and address any impacts on the cliff/slope on the east side of the railway.

	To provide biodiversity net benefit in line with PPW 12 a landscaping scheme will need to produced using native species and the provision of suitable habitats for protected and priority species secured by a Biodiversity Enhancement and Management Plan (BEMP).
Conclusions	The Scheme has the potential to impact Aber Afon Conwy SSSI [redacted]. Impacts on these ecological features should be avoided in the design stage and amendments made to avoid these impacts. Impacts on most other protected species and SPI (S7) are limited given the restricted scale of the Scheme and impacts can be minimised through the adoption of an ecological precautionary working method statement (PWMS) included within the contractors CEMP. Biodiversity enhancement will also need to be incorporated into the Scheme to provide net benefit for biodiversity in line with PPW 12.

This Executive Summary is not a substitute for the full report. Refer to the full text of this report for further detail.

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1.0 Introduction

1.1 The Environment Partnership (TEP) was commissioned by Conwy County Borough Council in February 2024 to undertake an Ecological Impact Assessment (EcIA) to support of a planning application for the construction of a new active travel link, comprising a footpath/cycleway between the RSPB Conwy Reserve and Glan Conwy (hereafter referred to as 'the Scheme').

1.2 An Ecological Desk Study has been produced to support this EcIA, reported under separate cover (TEP Ref: 10313.004). This EcIA report should read in conjunction with the Desk Study.

1.3 This EcIA report includes details of the methods employed and any limitations of the surveys undertaken. Results are provided with supporting maps, together with an evaluation of the ecological features within the Scheme, an assessment of the potential impacts associated with the development proposals and requirements for mitigation. The assessment has been undertaken with due consideration for current best practice guidelines (CIEEM 2017a[1], 2018[2]).

Proposals

1.4 A planning application is to be submitted in early 2024 for the construction of a new active travel link, comprising a footpath/cycleway between the RSPB Conwy Reserve and Glan Conwy as part of the Coast to Valley Active Travel Route, to improve transport connections in the Conwy Valley. The construction programme was unavailable at the time of this report.

1.5 New bridges are proposed over the railway line and the Afon Ganol at the southern end of the Scheme route. The majority of the scrub and young trees along the Scheme route have already been removed by the site managers.

1.6 The Scheme is located the administrative area of Conwy County Borough Council and planning permission is required for all of the works, except for the temporary access and site compound.

1.7 Further details for Scheme proposals are presented in Annex A.

[1] CIEEM (2017a) Guidelines for Ecological Report Writing, 2nd Edition. Chartered Institute of Ecology & Environmental Management

[2] CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester

Scheme Location

1.8 The location of the Scheme is depicted by the red line shown in Figure 1. It extends from the northern entrance of the RSPB Conwy Reserve towards the village of Llansanffraid Glan Conwy. The approximate central grid reference of the Scheme is SH 80236 77166.

1.9 The wider area comprises the RSPB Conwy Reserve and the Conwy estuary to the southwest. To the north is the A55 North Wales Expressway and the urban area of Llandudno junction.

Figure 1: Scheme location and proposed development

Planning Context

1.10 Relevant information regarding local planning policy is provided in the Ecological Desk Study (TEP Ref 10313.004).

1.11 The following policies within the Conwy Local Development Plan (LDP) (Adopted 2013) are of relevance to ecology and biodiversity:

- Strategic Policy NTE/1 – The Natural Environment;
- Policy NTE/5 – The Coastal Zone; and
- Policy NTE/4 – The Landscape and Protecting Special Landscape Areas.

1.12 Planning Policy Wales 12 (PPW12) delivers land use planning policy for Wales and provides a framework for the effective preparation of local planning authorities' development plans. Chapter 6 contain the key policies relating to nature conservation and biodiversity.

Consultation

1.13 Consultation with the Conwy County Borough Council (CCBC) Ecologist was undertaken on the 11th of March 2024 and 11th April 2024 regarding the likelihood of certain protected species being present and requirement for protected species surveys. Consultation was also undertaken the RSPB reserve warden on 14th March 2024 regarding species records for the reserve.

Scope

1.14 This Ecological Impact Assessment (EcIA) considers potential ecological effects upon any notable habitats or species which may be present or adjacent to the Scheme.

1.15 This report provides baseline information on the habitats and protected species present within the Scheme, gathered during a desktop study and Extended Phase 1 habitat survey habitat survey undertaken in March 2024.

1.16 This report presents the findings of the EcIA, the objectives of which are to:

- Detail the methods and results of the aforementioned surveys;
- Identify features of ecological value within the Scheme, such as legally protected species or habitats of importance to biodiversity;
- Identify any non-native invasive species within the Scheme and provide advice regarding removal or management;
- Advise on avoidance or mitigation requirements that may be needed prior to development commencing; and
- Provide outline recommendations for net benefit for biodiversity within the Scheme proposals in accordance with PPW 12.

2.0 Methods

Desk Study

2.1 In line with current best practice (CIEEM, 2016[3], 2017b[4]), information regarding designated sites, notable habitats and existing protected and notable species records of the past decade, within a 2km minimum radius of the Scheme was collated and reviewed to inform this ecological assessment. Further detail regarding ecological zones of influence (EZOI) applied for different ecological features and the sources of information included are presented in the Ecological Desk Study (TEP Ref 10313.004).

2.2 In brief, key data sources included Natural Resources Wales (NRW) (public sector information), Environment Agency (open-source data); Conwy Local Development Plan (LDP) and other relevant planning documentation such as the Welsh Government Nature recovery action plan – Our Strategy for Nature 2015 and Nature Recovery Action Plan 2020-21 and North Wales Environmental Information Service (COFNOD). The desk study includes a review of relevant (within the past ten years) species records.

2.3 Statutory designated wildlife sites were searched for as follows (EZOI applied for each is indicated in brackets):

- Ramsar sites (10km);
- National Sites Network (10km), includes Special Areas of Conservation (SAC) and Special Protection Areas (SPA);
- Site of Special Scientific Interest (SSSI) (5km);
- National Nature Reserve (NNR) (5km); and
- Local Nature Reserves (LNR) (2km).

2.4 Non-statutory designated wildlife sites were searched for within 2km of the Scheme and, within Conwy, these may include:

- Local Wildlife Sites (LWS)

2.5 Regionally Important Geological Sites (RIGS) are also identified in the search results provided by COFNOD, but assessment of RIGS and other geological features do not fall within the scope of this EcIA and are not discussed further.

3 CIEEM (2016) Guidelines for Accessing and Using Biodiversity Data. Chartered Institute of Ecology & Environmental Management

4 CIEEM (2017b) Guidelines for Preliminary Ecological Appraisal, 2nd Edition. Chartered Institute of Ecology & Environmental Management

2.6 Notable habitats were searched for within 250m of the Scheme. Notable habitats may include those listed under any of the following:

- Ancient woodland;
- Main rivers;
- Habitats of principal importance (HPI) as listed by the requirements of Section 7 (S7) of the Environment (Wales) Act 2016[5]; and supersedes the duty in Section 42 of the NERC Act 2006[6].
- Local Biodiversity Action Plan Habitats (LBAP).

2.7 Pre-existing records for notable species were reviewed from the combined data sources, where found from within approximately 1km of the Scheme. Notable species include those listed under any of the following:

- Protected animal species under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (EPS);
- Species of principal importance (SPI) as listed in Section 7 of the Environment (Wales) 2016 Act;
- Protected bird species under Schedule 1 of the Wildlife and Countryside Act 1981, as amended (WCA1);
- Protected animal species under Schedule 5 of the Wildlife and Countryside Act 1981, as amended (WCA5);
- Protected plant species under Schedule 8 of the Wildlife and Countryside Act 1981, as amended (WCA8);
- Invasive non-native plant species under Schedule 9 of the Wildlife and Countryside Act 1981, as amended (WCA9);
- Invasive non-native species under the Invasive Alien Species (Enforcement and Permitting) Order 2019 (IAS);
- Protection of Badgers Act 1992 (PBA);

5 *Environment (Wales) Act Section 7 Terrestrial Habitats of Principle Importance | DataMapWales (gov.wales)* [accessed 10th April 2024].

6 Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

- Red and Amber listed Birds of Conservation Concern – Wales (WBRd/WBAm) [7];
- Welsh Government Nature Recovery Action Plan (NRAP) (Updated 2021)[8]
- Wild Mammals (Protection) Act (WMPA) 1996[9];
- Planning Policy Wales 2024[10]; and
- Government Circular 06/2005[11].
- Regional Nature Recovery Action Plan (NRAP).
- Planning Policy Wales 2024[10]; and
- Government Circular 06/2005[11].
- Regional Nature Recovery Action Plan (NRAP).

Limitations

2.8 Species records can provide a useful indication of the species present within the search area, although the absence of a given species from the dataset cannot be taken to represent actual absence.

Habitats and Flora

Habitat Survey

2.9 An extended Phase 1 habitat survey was completed by Alun Evans, certified to Level 4 under the Field Identification Skills Certification on 13th & 22nd March 2024. The survey was carried out in accordance with the Phase 1 habitat assessment methods (JNCC, 2010) / UK Habitat Classification (UKHab) assessment method and Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017b). The method records the habitat types present, within the survey route, based on the JNCC/UKHab descriptions. Plant species were identified in accordance with the New Flora of the British Isles (Stace, 2019[12]) and recorded as target notes using the DAFOR[13] scale, where relevant.

7 *Birds of Conservation Concern Wales 4: the population status of birds in Wales | BTO - British Trust for Ornithology* [Access April 2024)

8 NRAP *https://www.gov.wales/sites/default/files/publications/2020-10/nature-recovery-action-plan-wales-2020-2021.pdf*
(Access January 2024)

9 Wild Mammals (Protection) Act 1996 c.3 *https://www.legislation.gov.uk/ukpga/1996/3*

10 Planning Policy Wales 2024 *https://www.gov.wales/sites/default/files/publications/2024-02/planning-policy-wales-edition-12_1.pdf*

11 Office of the Deputy Prime Minister (2005) 'Government Circular: Geological and Biological Conservation – Statutory obligations and their implications within the planning system' ODPM

circular 06/2005, DEFRA circular 01/2005
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf

2.10 The survey was expanded to include off-site habitats adjacent to the Scheme in order to provide context. Adjacent habitats were viewed from accessible locations within the Scheme boundary. Habitats are displayed with the Scheme boundary on drawing G10313.013.

Limitations

2.11 Any ecological survey represents a snapshot of ecological conditions at the time of survey; ecological conditions may change over time. Efforts to identify dominant plant species for the purposes of characterising broad habitat types do not constitute a detailed botanical survey.

2.12 The survey was undertaken outside of the optimal survey period of April to mid-October; therefore, there is the potential that certain botanical species were not identified which may be present at other times of the year.

2.13 The southern end of the Scheme crosses over the railway line servicing the Conwy Valley. This section across the railway was not accessed and was viewed at a distance from both within the RSPB Reserve and from the layby off the A470. Due to this access restriction ecological features within the railway corridor could have been missed.

Fauna

2.14 Ordnance Survey maps and aerials were reviewed to identify potentially suitable habitats offsite within influence (e.g. dispersal distances for mobile species) of the Scheme. The Ecological Desk Study (TEP ref: 10313.004) identified any pre-existing records for protected and notable species within at least 1km of the Scheme. Consultation was also undertaken with the CCBC Ecologist and the RSPB Reserve Warden.

2.15 The habitat survey included an extended assessment of the habitats present for their potential to support notable or protected wildlife species. Any signs indicating the presence of these species were recorded.

2.16 In combination, this data informed the ecological evaluation of the Scheme and impact assessment for the proposed development.

Limitations

2.17 The species investigated are mobile and will move into and out of areas over time. For

these reasons a precautionary approach has been taken in the prediction of impacts. Where there is any doubt, except where specifically noted, species are assumed to be present, and the impact assessment assumes a higher level of significance (within the spectrum of possible significance).

Badger Survey

2.18 A badger survey was undertaken following the standard approach detailed in Surveying Badgers (Harris et al., 1989) and used during the National Badger Survey (Cresswell et al., 1990). Particular emphasis will be placed on locating badger setts and signs of territorial activity. This survey was undertaken by a suitable experienced TEP ecologist on 13th & 22nd March 2024.

2.19 The survey entailed walking the site and surrounding 30m (where possible), observing and recording field signs that indicate the presence of badger. Signs of badger include setts and holes; dung pits and latrines; scratching posts; feeding signs, such as snuffle holes; hairs; trails of a size and form that is consistent with badger; and footprints.

2.20 Where activity is recorded at setts, levels are recorded using the following criteria: number of well used holes; number of partially used holes; and number of disused holes.

2.21 Setts are then classified using the nationally recognised sett classification criteria (Cresswell et al., 1990) of Main, Annexe, Subsidiary and Outlier. An assessment of their status is also undertaken and then attributed as active/well used, partially used or disused.

Limitations

2.22 Access was not possible within the A55 road corridor to the north of the site and the rail line corridor to the east. Dense scrub also prevented surveying in localised areas within the RSPB Reserve.

Ground Level Tree Assessment for Bat Roost Suitability

Ground Level Tree Assessment for Bats (GLTA)

2.23 A ground-based assessment of the trees within the scheme boundary was carried out to determine their suitability to provide bat roost habitat. These assessments were undertaken in conjunction with the phase 1 survey in March 2024. The habitats on site and surrounding the site were also assessed for potential to support roosting, foraging and commuting bats.

2.24 The GLTA involved the surveyor using close focussing binoculars to search from the

ground for any Potential Roost Features (PRFs), which may be used by bats. Most tree roosts are created by one or a combination of the following:

- Old woodpecker holes;
- Splits in trunk, bough or large branches;
- Rot holes in trunk, bough or large branches;
- Holes formed by two boughs or branches growing in contact;
- Loose or lifting bark; and
- Underneath a covering of dense latticed creeper, usually ivy (*Hedera helix*).

2.25 Following the GLTA, the trees within the site were categorised in accordance with the criteria for roost habitat assessments identified in the Bat Conservation Trust (BCT) 2024 Good Practice Guidelines (Collins, 2024[14]). Bat roost habitat suitability categorisation details are described in **Error! Reference source not found.**. Roost habitat suitability categorisation takes into consideration parameters such as location, habitat connectivity, materials, condition and aspect of structures and trees.

Table 1: Categorisation of suitability of tree PRF's for roosting bats (taken from the BCT Good Practice Guidelines, Collins J, 2024)

Tree PRF Suitability	Further Requirements
Negligible	No survey requirements.
PRF-I (PRF is only suitable for individual bats, or very small numbers of bats, either due to size or lack of suitable surrounding habitat)	No further surveys required. Appropriate compensation required for each PRF-I, prior to impacts. Supervision of works and a precautionary inspection of the PRFs to be completed by a bat licenced consultant.

PRF-M (PRF is suitable for multiple bats and may therefore be used by a maternity colony.)	Three aerial PRF inspections of the PRF-M features to be undertaken within May – September, spaced three weeks apart. Where access is not possible for aerial inspection either by ladder or MEWP, or features are too extensive to survey thoroughly, three dusk emergence surveys will be carried out, supported with night vision camera aids.

[14] Collins, J. ed. 2024. Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th Edition. Bat Conservation Trust.

Hazel Dormouse Habitat Suitability Assessment

2.26 An assessment of the suitability of the habitats located within and adjacent to the site to support hazel dormice was undertaken by a TEP Natural Resources Wales dormouse licenced Ecologist on 28th February 2024. The assessment was completed in accordancewith the English Nature (now Natural England) Dormouse Conservation Handbook (Bright et al, 2006)[15].

2.27 The Dormouse Conservation Handbook suggests likely population densities based on habitat suitability, in suitable geographical locations, as detailed in Table 2 below.

Table 2: Predicted Dormouse Population Densities

Habitat	Mean Spring Density (individuals per ha)
Optimal habitat (diverse deciduous woodland with abundant scrub and vigorous understorey)	4 to 10 adults
Oak dominated woodland, with hazel	2 adults, increased by 48% by appropriate management
Scrub	Unknown
Conifer woodland	1 to 3 adults

Hedgerow	1.3 adults

Ecological Assessment Process

2.28 This EcIA follows the published guidelines (CIEEM, 2018) and accepted best practice approach (BS42020:2013[16]) of the mitigation hierarchy whereby impacts are first avoided or, where this is not possible, reduced or mitigated or, as a last resort, compensated.

15 Bright, Morris and Mitchell-Jones (2006) The Dormouse Conservation Handbook (2nd edn). English Nature.

16 British Standards Institution (2013) BS 42020:2013: Biodiversity — Code of practice for planning and development. BSI Standards Limited, London

2.29 In summary, the following procedure was undertaken during this EcIA:

- Describe the baseline and identify important ecological features;
- Describe important ecological features and identify those which may potentially be affected by the Scheme;
- Identify potential impacts upon important ecological features and characterise the effect of such impacts (in respect of biophysical changes and taking account of relevant aspects of ecosystem structure or function);
- Incorporate measures to avoid or reduce these effects;
- Determine whether residual ecological effects are considered significant after avoidance or mitigation;
- Identify appropriate compensation measures to offset significant residual effects; and
- Identify opportunities for ecological enhancement.

2.30 Important ecological features are identified and valued, ecological impacts are characterised and assessed, and recommendations for appropriate mitigation, compensation and enhancement are made, in accordance with CIEEM guidance.

2.31 BS42020:2013 defines a significant effect as one "which is important, notable, or of consequence, having regard to its context". CIEEM describes significance as "a concept related to the weight that should be attached to effects when decisions are made". CIEEM defines an ecological effect as significant if it is "sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a project".

2.32 BS42020:2013 sets out a practical approach to determining the significance of an

ecological effect, applicable at all levels of decision making in legal and policy terms, as follows:

- will the effect on biodiversity influence the balance of planning considerations and therefore the decision as to whether planning permission is likely to be refused or granted; and
- if planning permission is granted, is the effect important enough to warrant the use of planning conditions and/or obligations to guarantee proposed measures or to impose restrictions, or to seek further requirements (e.g. for mitigation, compensation, enhancement, monitoring or management).

2.33 Significance is therefore assessed on a case-specific basis according to the importance of the ecological feature (wildlife site, habitat or species) within the conservation hierarchy, and the effect upon it.

Assumptions

2.34 Information provided by third parties, including publicly available information, is assumed to be correct at the time of publication.

3.0 Results

Planning Context

3.1 Planning Policy Wales 12 (PPW12) delivers land use planning policy for Wales and provides a framework for the effective preparation of local planning authorities' development plans. Chapter 6 contains the key policies relating to nature conservation and biodiversity.

3.2 PPW 12 (para 6.4.11) advises that planning authorities must follow a step - wise approach to maintain and enhance biodiversity, build resilient ecological networks and deliver net benefits for biodiversity by ensuring that any adverse environmental effects are firstly avoided, then minimized, mitigated, and as a last resort compensated for. Enhancement must be secured by delivering a biodiversity benefit primarily on site or immediately adjacent to the site, over and above that required to mitigate or compensate for any negative impact.

3.3 The Conwy Local Development Plan (LDP) (Adopted 2013) is the current local plan. Relevant extracts of local planning policy are provided in the Ecological Desk Study (TEP ref: 10313.004). The following policies relate to biodiversity and nature conservation:

- Strategic Policy NTE/1 – The Natural Environment;
- Policy NTE/5 – The Coastal Zone; and
- Policy NTE/4 – The Landscape and Protecting Special Landscape Areas.

Wildlife Sites

National Sites Network

3.4 Full details regarding designated sites are provided within the Ecological Desk Study (TEP ref: 10313.004).

3.5 There are five sites within the National Sites Network located within 10km of the Scheme. These are:

- Coedwigoedd Penrhyn Creuddyn/ Creuddyn Peninsula Woods SAC - 1.4km North - designated for its woodland and calcareous grassland habitats;
- Y Fenai a Bae Conwy / Menai Strait and Conwy Bay SAC - 3.3km Northwest - designated for its marine habitats;
- Liverpool Bay / Bae Lerpwl (Wales) SPA - 4.9km Northwest – Hosts a number of protected bird species and has an internationally important waterbird assemblage;

- Great Orme's Head / Pen y Gogarth SAC - 6.1km Northwest - designated for its extensive range of habitats; and
- Eryri / Snowdonia SAC – 10km Southwest – designated for its extensive range of habitats.

Other Statutory Wildlife Sites

3.6 There are eight SSSIs located within 5km and one site of regional or local importance within 2km. These are:

- Aber Afon Conwy SSSI - 0.1km South - Of special interest for its marine and terrestrial invertebrate biology. Bonus features of the site are the frequently high numbers of waders, especially curlew, redshank, oystercatcher, and migratory salmon;
- Benarth Wood SSSI- 1.3km West - A mixed deciduous woodland on Silurian rocks;
- Creuddyn SSSI - 1.4km North – 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;
- Cadnant SSSI - 2.4km Northwest - A representative example of the Brachypodium sylvaticum Quercus/Fraxinus (slender false brome oak/ash) group of broadleaved woodlands;
- Chwareli a Glaswelltir Degannwy SSSI - 2.5km Northwest - Biological features, small-leaved sweet briar Rosa agrestis and a rare vascular plant assemblage;
- Coed Ffordd-Las SSSI - 2.7km South - A biological site selected to represent a type of broadleaved woodland which is uncommon in North Wales;
- Bryn Euryn SSSI - 3.8km Northeast - An area of species rich grassland;
- Sychnant Pass SSSI - 4.8km West - A large area of heath with the dominant vegetation being Bell Heather, *Erica cinerea* and *Ling Calluna vulgaris;* and
- Bodlondeb Woods LNR - 1.8km West – A mixed woodland and home to a variety of mammals, birds and butterflies.

Local Wildlife Sites

3.7 There are four non-statutory local wildlife sites identified within 2km of the Scheme. Of most relevance are the following:

- Benarth Meadows LWS - 1.2km West;
- Coed Cilglasin - 1.4km East;

- Fron Pabo (Bryn-teg Pasture) - 1.7km Northeast; and
- Hendre Wen Reedbeds - 1.7km East.

Other Wildlife Designations / Consultation Zones

3.8 The Scheme lies within the RSPB Conwy Reserve and lies within a B-line[17] which is an initiative that has mapped insect pathways and the Cymru area is a stronghold for rare species such as the Shrill carder bee.

Habitats and Flora

Pre-existing Data

3.9 The Desk Study identified the following notable habitats on, adjacent to or connected with the Scheme:

- Afon Conwy and Afon Ganol (Statutory Main Rivers);
- Intertidal Mudflats
- Lowland fens and reedbeds; and
- Saltmarsh.

3.10 Several records of notable or invasive flora were returned within the Scheme. Flora records returned within 2km of the Scheme as follows:

- Protected and notable species:
  - Bluebell *Hyacinthoides non-scripta* – WCA8;
  - Spiked Speedwell *Veronica spicata* – WCA8;
  - Purple Ramping-fumitory Fumaria purpurea - S7
- Non-native and invasive species:
  - New Zealand Pigmyweed Crassula helmsii - WCA9
  - Entire-leaved Cotoneaster Cotoneaster integrifolius - WCA9
  - Himalayan Balsam *Impatiens glandulifera* - WCA9, IAS
  - Himalayan Cotoneaster *Cotoneaster simonsii* - WCA9

[17] Buglife *https://www.buglife.org.uk/our-work/b-lines/b-lines-wales/* (Accessed March 2024)

- Japanese Rose *Rosa rugosa* - WCA9
- Montbretia *Crocosmia pottsii x aurea = C. x crocosmiiflora* – WCA9
- Three-cornered Garlic *Allium triquetrum* – WCA9
- Variegated Yellow Archangel *Lamiastrum galeobdolon subsp. Argentatum* - WCA9
- Wall Cotoneaster *Cotoneaster horizontalis* – WCA9
- Rhododendron *Rhododendron ponticum* – WCA9

3.11 Habitats of ecological value present in and around the Scheme are described below and illustrated in Drawing G10313.013, detailed in the Target notes (TN) provided in Annex B.

Phase 1 Habitat Survey

3.12 A Phase 1 Habitat map is provided at the back of this report (Drawing 1 ref: G10313.013) which provides an illustration of the habitats present on the site. These habitats are listed below, and brief descriptions of these habitats are also given:

- Modified Neutral Grassland[18]
- Semi-natural Broad-leaved Woodland
- Plantation Broad-leaved Woodland
- Dense/continuous & Scattered Scrub
- Marginal Vegetation
- Running Water
- Bare Ground
- Bare Ground with Perennial Vegetation

[18] The neutral grassland categories detailed within the Phase 1 Habitat Survey Handbook are concentrated on grassland associated with rural situations (pastures and meadows), as such it was agreed with JNCC in 2005 (P. Gateley, pers.comm.) that neutral grassland habitats that don't easily fit within these categories, usually within urban or industrial areas, can be referred to as modified neutral grassland.

Modified neutral grassland is not derived from agricultural grassland and the terms semi-improved and improved do not apply. Some modified neutral grassland may be species-rich, but many swards are dense, coarse and species-poor. Modified neutral grassland naturally regenerates on disturbed ground and is unmanaged. It most commonly occurs in urban areas and on post-industrial land

Modified Neutral Grassland

There is an area of modified neutral grassland at the northern end of the Scheme at the entrance to the Reserve (TN15) (Figure 2). Within the sward there is frequent ribwort plantain *Plantago lanceolata*, with occasional yarrow *Achillea millefolium*, knapweed *Centaurea nigra*, cock's-foot *Dactylis glomerata*, oxeye daisy *Leucanthemum vulgare*, bird's-foot Trefoil *Lotus corniculatus* and alexanders *Smyrnium olusatrum.* Spotted medick *Medicago arabica* is rare and invasive Japanese rose *Rosa rugosa*is is present on the adjoining scrub edge.

Figure 2: Modified neutral grassland at the northern end of the scheme (TN15)

Semi-natural Broad-leaved Woodland

3.13 A small area of broadleaved woodland is present in the southeast of the Scheme consists of a collection of multi-stemmed young sycamore *Acer pseudoplatanus* and willow

species *Salix* sp. (TN14). This area has been partially cleared with a pathway cut through it and piles of resulting wood chippings are present (TN14) (Figure 3).

Figure 3: Partially cleared, small area of broadleaved woodland (TN14).

Plantation Broad-leaved Woodland

3.14 Young plantation broad-leaved woodland is present either side of the northern section of the scheme (Figure 4). A pathway through it had recently been cut through the area. Trees consist of frequent Ash *Fraxinus excelsior,* with occasional hazel *Corylus avellana*, hawthorn *Crataegus monogyna*, white poplar *Populus alba*, aspen *Populus tremula*, cherry species *Prunus sp.,* oak species *Quercus sp.* and willow species. Yew *Taxus baccata* and silver birch *Betula pendula* are rare. The ground flora limited to frequent ivy *Hedera helix*, yarrow and Italian ryegrass *Lolium multiflorum*, with fresh pile of wood chippings at TN01 but a wider diversity of ground flora species are present in areas on the south side of the scheme (TN03). The ground flora is this location includes abundant ivy, frequent bramble, whilst creeping bent *Agrostis stolonifera*, Hart's-tongue *Asplenium scolopendrium* and sedge species *Carex sp* being rare.

Figure 4: Young plantation broad-leaved woodland, with pathway (TN01).

Figure 5: Ground flora at the north of the scheme (TN03).

Dense/continuous & Scattered Scrub

3.15 Northeast of the scheme is a strip of dense/continuous scrub which consists mainly of bramble *Rubus fruticosus agg* with the occasional ivy and oxeye daisy *Leucanthemum*

vulgare (TN05). Scattered bramble *fruticosus agg* scrub is present throughout the route, with some areas being not fully accessible due to it being overgrown (TN06) (Figure 6). Other areas of dense scrub are present in the eastern section of the scheme where a path had recently been created through the bramble (TN10) (Figure 7). Smaller areas of scrub are also present along the stone embankment towards the southern end of the scheme (TN19).

Figure 6: Area of inaccessible overgrown scrub (TN06) and the narrow strip of modified neutral grassland running along the middle (TN04)

Figure 7: Area of dense scrub present in the eastern section of the scheme where a path had recently been created through the bramble (TN10).

Marginal Vegetation

3.16 A strip of marginal vegetation is present along the eastern side of the Afon Ganol which consists of frequent creeping bent *Agrostis stolonifera*. Nettle *Urtica dioica*, moss species

moss sp. and celery- leaved buttercup *Ranunculus sceleratus* are rare (TN17). There is also occasional reed *Phragmites australis* at the northern end (Figure 8) and bramble on the embankment.

Figure 8: Afon Ganol (TN13) with marginal vegetation (TN17).

Running Water

3.17 At the southern end of the scheme the Afon Ganol (Figures 8 and 9) runs along the western side of an embankment. It flows north to south constrained by rock embankments and was approx. 1-2m deep at the time of the survey (TN13). The water is tidal with levels controlled by tidal gates/flaps before discharging into the Conwy estuary.

Figure 9: Afon Ganol (TN13).

Bare Ground/Bare Ground with Perennial Vegetation

3.18 Some areas of bare ground are present within the scheme. There is an access track along the central section of the scheme with a narrow strip of modified neutral grassland running along the middle (TN04).

3.19 At the southeast of the scheme there is an area of bare ground with some perennial vegetation (TN12) (Figure 10), comprising frequent moss species, occasional creeping bent, common ragwort *Jacobaea vulgaris* and bramble.

Figure 9:Bare ground with some perennial vegetation (TN12).

Stone wall

3.20 There are sections of stone wall marking the boundary with the railway as well as the boundary with the layby off the A470.

Notable or Invasive Flora

3.21 The Ecological Desk Study returned records of bluebell *Hyacinthoides non-scripta* (WCA8), purple ramping-fumitory *Fumaria purpurea* (S7) and spiked speedwell *Veronica spicata* (WCA8) within 2km of the Scheme. Of these only a single record of bluebell was returned from within the Reserve. No protected or notable plant species were observed during the survey, though the survey was undertaken at a suboptimal time of the season.

3.22 Invasive plant species records returned within 2 km of the scheme include New Zealand pigmyweed *Crassula helmsii*, entire-leaved cotoneaster *Cotoneaster integrifolius*, Himalayan balsam *Impatiens glandulifera*, Himalayan cotoneaster *Cotoneaster simonsii*, Japanese rose *Rosa rugosa*, montbretia *Crocosmia pottsii x aurea = C. x crocosmiiflora*, three-cornered garlic *Allium triquetrum*, variegated yellow archangel *Lamiastrum galeobdolon subsp. Argentatum*, wall cotoneaster *Cotoneaster horizontalis* and rhododendron *Rhododendron ponticum*.

3.23 Giant hogweed *Heracleum mantegazzianum,* Japanese rose, and Himalayan cotoneaster are present along the Scheme corridor. All three are WCA 9 species with giant hogweed also listed on Schedule II of The Invasive Alien Species (Enforcement and Permitting) Order (2019).

Habitat Connectivity

3.24 The scheme lies within the northern and eastern boundaries of the RSPB Reserve which is bordered to the west by the Afon Conwy river/estuary, and to the north by the A55 North Wales Express Way with commercial developments beyond the road. The Conwy valley railway line adjoins the eastern boundary beyond which are meandering sections of the Afon Ganol. There are broad-leaved woodlands and agricultural pastures further to the east of the Scheme and further south along the railway line. The estuarine Afon Conwy with sand embankments extends to the south of the scheme.

Fauna

3.25 The potential for the Scheme to support legally protected and notable species has been assessed using the results of the desk study, consultation with the RSPB Warden and CCBC's Ecologist, and observations made during the survey of habitats within and immediately surrounding the Scheme. Habitats present within the Scheme are suitable for the following species, further consideration is given below to the likelihood for these species to be present within the site;

- Amphibians
- Badger
- Bats
- Birds
- Otter
- Polecat
- Reptiles
- Fish
- Invertebrates

Amphibians

3.26 The desk study identified the following amphibian records within 2km of the Scheme:

- Common frog *Rana temporaria*;

- Common toad *Bufo bufo*; and
- Smooth newt *Lissotriton vulgaris*

3.27 The majority records of amphibians were recorded to the west of the Scheme from within the Reserve. No records of Great Crested Newt *Triturus cristatus* were returned within 2km of the Scheme's boundary.

3.28 There are multiple waterbodies and wet ditches present within the Reserve that may offer suitable breeding habitat for common amphibians.

3.29 The marginal vegetation, semi-natural broad-leaved woodland, plantation woodland, modified neutral grassland, scrub habitats, stone walls and stone embankment within and adjacent to the scheme offer suitable terrestrial habitats for amphibians for commuting, foraging and hibernation.

Badgers

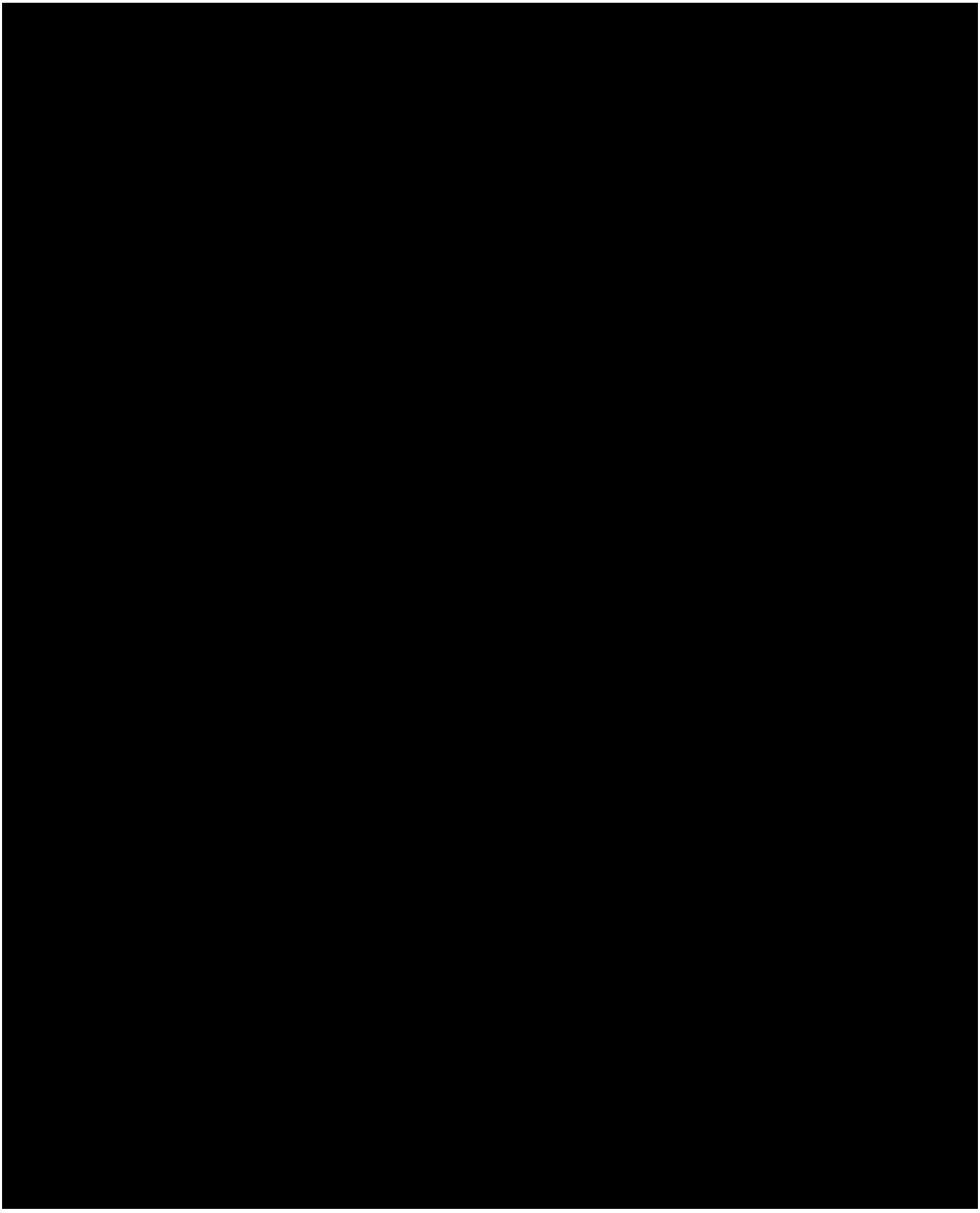
3.30 [redacted].

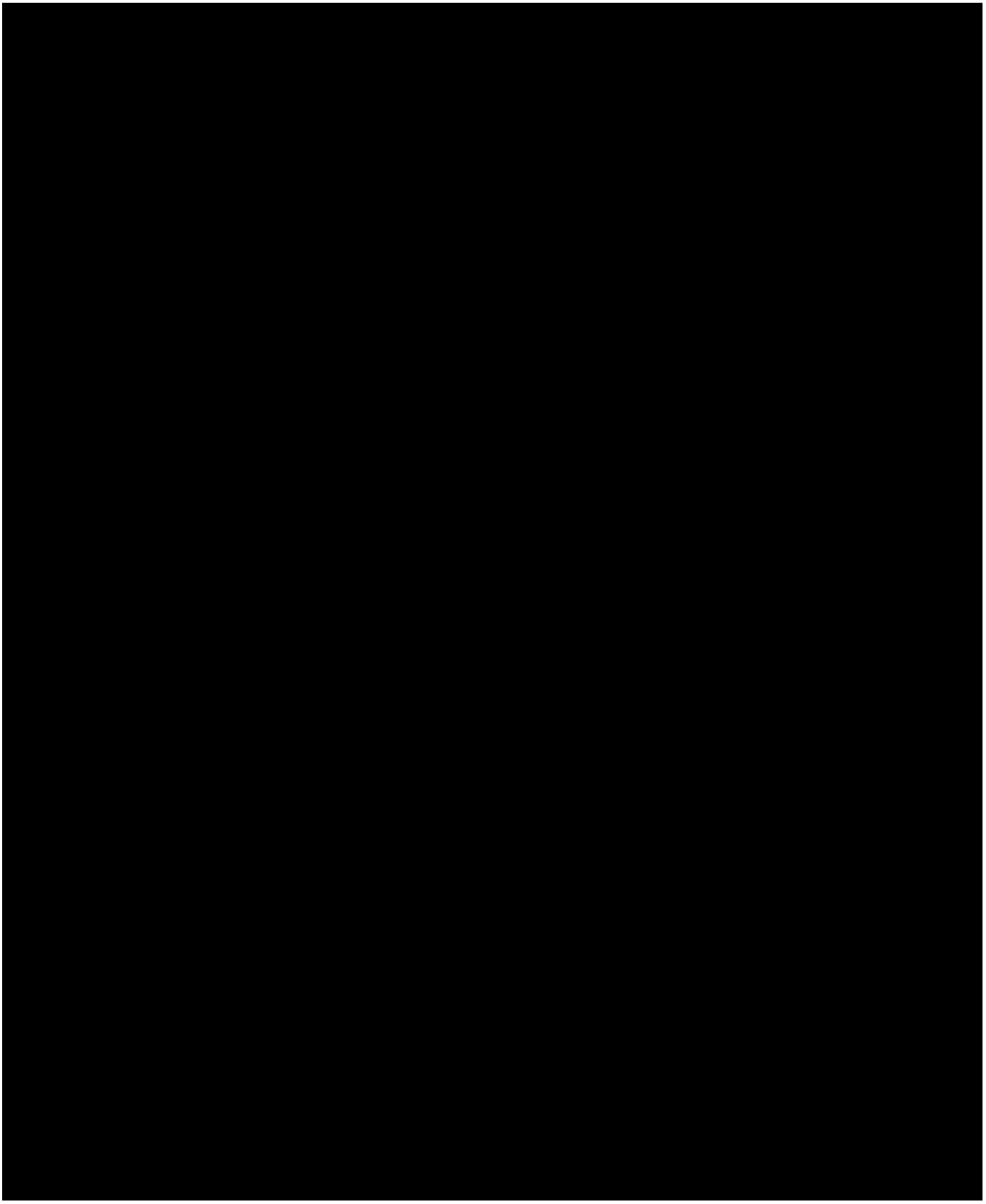
3.31 [redacted]

3.32 [redacted]

3.33 [redacted]

[redacted].





Bats

3.35 The desk study identified the following bat species within 2km of the site:

- Common pipistrelle *Pipistrellus pipistrellus* (EPS, WCA5, LBAP);
- Daubenton's bat *Myotis daubentoniid* (EPS, WCA5);
- Lesser horseshoe bat *Rhinolophus hipposideros* (EPS WCA5, S7);
- Nathusius's pipistrelle *Pipistrellus nathusii* (EPS, WCA5);
- Natterer's bat *Myotis nattereri* (EPS, WCA5);
- Noctule *Nyctalus noctule* (EPS, WCA5, S7, LBAP)
- Pipistrelle species *Pipistrellus sp.* (EPS, WCA5, LBAP);
- Soprano pipistrelle *Pipistrellus pygmaeus* (EPS, WCA5, S7, LBAP);
- Whiskered bat *Myotis mystacinus* (EPS, WCA5); and
- Brandt's bat *brandtii* (EPS, WCA5)

3.36 All trees within and directly adjacent to the site boundary were subject to a ground level tree assessment (GLTA).

3.37 Trees within and adjacent to the scheme considered to have potential to support a bat roost are described in Table 3 and are shown in the Phase 1 habitat map (G10313.013) All other trees were assessed as having negligible bat roost suitability, primarily to their young age and size and no suitable features.

Table 4: Ground Level Tree Assessment Results

Tree Label	Location	Description	Suitability
T1	SH 80276 76814	Multi stemmed willow sp. Split branch on north side. Snapped central branch at 10m height. Cracked branch at 18m height. Some features open to daylight/elements. 	PRF I

T2	SH 80250 76731	Multi stemmed willow. Snapped/hinged branch on the northern side at c. 12m. Also snapped trunk at 1.8m.  	PRF I

T3	SH 80248 76720	Multi stemmed willow. Vertical split at c. 10m height and horizontal split branch. 	PRF I

T4	SH 80244 76721	Multi stemmed willow. Vertical crack in branch, at c.15 m height. 	PRF I

T5	SH 80245 76719	Multi stemmed willow. Vertical branch split at c. 15m height. 	PRF I

T6	SH 80262 76673	Multi stemmed sycamore located on top of roadside wall. Branch socket on horizontal branch. Feature facing southeast. No access to inspect the tree from north and west. 	PRF I

3.38 The adjacent woodlands, as well as the dense continuous scrub, and wet ditch habitats within the site and adjacent to the site offer suitable foraging and commuting habitat for bats.

3.39 There were three built structures (labelled as B1, B2 and B3) were noted in north and east of the Scheme. B1 was a larger metal structure (Figure 11), housing electrical equipment, fully sealed and waterproof. B2 was a small electrical kiosk (Figure 12), again fully sealed and waterproof. B3 was a smaller concrete flat roofed structure (Figure 13), approximately 1.5m high, with no obvious entry points apart from a very small gap at the foot of the door. These were all assessed as having negligible bat roosting suitability.

Figure 10: Built structure with negligible bat roosting suitability. B1

Figure 11: Built structure with negligible bat roosting suitability. B2

Figure 12: Building B3, small structure north of Afon Ganol.

3.40 The eastern side of the railway consists of a vegetated cliff/slope (Figure 14). As it was not accessible and could only be viewed at a distance the presence of any suitable crevices/voids for bats cannot be fully discounted.

Figure 14: Vegetated cliff/slope east of railway

Birds

3.41 There are records of one hundred and twelve protected and notable bird species (SPI, WBRd, WBAm, WCA1) within 2km of the site. Within the records returned thirty-eight WCA1 species including:

- Barn owl *Tyto alba*
- Crossbill *Loxia curvirostra*
- Temminck's stint *Calidris temminckii*
- Firecrest *Regulus ignicapilla*
- Green sandpiper *Tringa ochropus*
- Merlin *Falco columbarius*
- Peregrine *Falco peregrinus*
- Hobby *Falco Subbuteo*
- Hoopoe *Upupa epops*
- Kingfisher *Alcedo atthis*

3.42 Of the species listed in the desk study, the marginal vegetation, dense continuous scrub and scattered scrub are suitable for breeding and foraging yellow hammer *E. citrinella,* reed bunting *E. schoeniculus*, linnet *Linaria cannabina*, house sparrow *Passer domestica*, dunnock *Prunella modularus*, turtle dove *Streptopelia turtur*, starling *Sturnus vulgaris,* song thrush *Turdus philomelos*, mistle thrush *T. viscivorus*, stock dove *Columba oenas*. and willow warbler *Phylloscopus trochilus*.

3.43 The running water and reeds are suitable foraging habitat for cuckoo *Cuculus cuculus*, Cetti's warbler *Cettia cetti*, mallard *Anas platyrhynchos*, reed bunting, and snipe *Gallinago gallinago*. Additionally ground nesting birds including little ringed plover *Charadrius dubius* and Lapwing, *Vanellus vanellus* have been recorded within the Reserve.

3.44 No birds were observed along the stone line Afon Ganol on either site visit and its stone rubble banks are not suitable for nesting kingfisher. The habitats within the Scheme provide negligible suitable feeding or roosting habitats for qualifying species of the Aber Afon Conwy SSSI.

3.45 An old barn nest box is present within a sycamore trees along the Scheme route at TN9 and a possible nest box was also viewed at a distance in the garden of a private property (Ynys Fawr) to the east of the railway. Consultation with the RSPB Warden confirmed no breeding records of barn owl in the Reserve.

Other Terrestrial Mammals

Otter

3.46 The Desk Study returned two records of otter *Lutra lutra* (EPS, WCA5, S7) within 2km of the site. The closest record of this species is approximately 205m south-west of the Scheme.

3.47 Otters require riparian habitats for foraging and commuting, with wetlands or woodlands in close proximity for shelter. The Afon Ganol adjacent to the site offers potential commuting and foraging habitat for otter, however there is limited sheltering habitat for otter within close proximity to the Scheme due to the recent tree/scrub clearance, and a degree of disturbance from passing visitors to the Reserve. No otter holts were identified along the watercourse however one fresh otter spraint was located at the southern end of the watercourse (TN16).

3.48 The Afon Conwy, the water bodies within the reserve and sections of the Afon Ganol to the east of the railway provide further commuting and foraging habitat and the section of the Afon Ganol east of the railway may provide potential opportunities for otter holt creation.

Polecat

3.49 The Ecological Desk Study returned two records of Polecat, *Mustela putorius* (S7, LBAP) within 2km of the site. The closest record of this species is approximately 408m north-west of the Scheme.

3.50 The on-site semi-natural broad-leaved woodland, plantation woodland and the dense/continuous scrub habitats are suitable for foraging and commuting polecats, and rabbit holes could be used as denning sites.

3.51 No evidence of Polecat was identified at the Scheme during the surveys.

Hazel dormouse

3.52 The Ecological Desk Study and the consultation with the RSPB did not identify any records of hazel dormouse *Muscardinus avellanarius* (EPS, S7, WCA5).

3.53 A search of NBN Atlas[20] shows three records of hazel dormice within 1km grid squares within 2km and 7km. The habitat suitability assessment undertaken by a licenced TEP

[20] *NBN Atlas - UK's largest collection of biodiversity information* (Accessed April 2024)

ecologist found that although the site and wider RSPB Reserve supports suitable scrub habitat to support dormice, given the isolated nature of the site, along with the lack of historical records in the region it is considered that dormice are highly likely to be absent from the site. The majority of the suitable habitat along the Scheme route has also been cut back by the site managers.

3.54 Consultation with CCBC's Ecologist confirmed that specific hazel dormouse surveys would not be required to support a planning application. Therefore, given that the species is unlikely to be present and impacted by the Scheme hazel dormice are not considered further in this assessment.

Hedgehog

3.55 Eight records of hedgehog *Erinaceus europaeus* (S7, WCA6) were returned in the desk study with the closest record being 595 metres north of the Scheme.

3.56 The semi-natural broad-leaved woodland, plantation woodland, dense and continuous scrub, and brash piles from the recent woodland clearance works, offer suitable ranging, foraging and sheltering habitat for hedgehog. There is connectivity to suitable habitats in the wider landscape via the railway corridor.

Water Vole

3.57 There were no records returned for water voles *Arvicola amphibius* (S7, WCA5) within 2km of the site. The stone lined banks of the Afon Ganol are not suitable for burrow creation and no evidence of water vole was observed during the survey. As such water vole will not be considered further in this report.

Reptiles

3.58 The Desk Study returned eight reptile records within 2km of the Scheme, including a record of common lizard *Zootoca vivipara* (S7, WCA5) just outside of the RSPB reserve.

3.59 The modified neutral grassland, dense/continuous scrub, brash piles, stone embankment, stone piles, walls, and adjoining railway habitats offer suitability for foraging and sheltering reptiles, in particular slow worm *Anguis fragilis* and common lizard. The running water also offers suitable habitat for grass snake *Natrix natrix.* There is good connectivity to other suitable habitats within the wider landscape to the east and further south via the railway.

Fish

3.60 No records of fish were returned within the 1km of the site within the past ten years. Salmon *Salmo salar* are one of the notified features of the Aber Afon Conwy SSSI. Water within the Afon Ganol is controlled by a series of tidal flaps and therefore unlikely to be used by a diverse range of fish species.

Invertebrates

3.61 Multiple records of invertebrates were returned for within 1km of the site, including of dingy skipper *Erynnis tages (S7)* and Silver-Studded Blue *Plebejus argus cretaceous* (S7, WCA5). However, these SPI are recorded from the grasslands at Creuddyn SSSI 1.3km to the north of the Scheme.

3.62 The running water and marginal vegetation in the Afon Ganol and the terrestrial habitat within the Schem provide suitable habitat for a range of invertebrate species, though the aforementioned species are unlikely to be present due the limited diversity of flora present.

4.0 Assessment of Potential Impacts

4.1 This section assesses the potential impacts on ecological features associated with the Scheme described in Section 1.0 and detailed in Annex A.

4.2 Consideration is given to the 'mitigation hierarchy', i.e. that impacts are first avoided or where this is not practicable, mitigated and as a final resort, compensated (off-set).

Wildlife Sites

4.3 There are five internationally designated wildlife sites within 10km of the Scheme, the nearest being Coedwigoedd Penrhyn Creuddyn/ Creuddyn Peninsula Woods located 1.4km North of the Scheme. Given the intervening distances and the small-scale nature of the proposed works, no direct or indirect impacts are anticipated on any internationally designated site.

4.4 There are eight nationally designated wildlife sites (SSSIs) within 5km of the site. With the exception of Aber Afon Conwy Site of Special Scientific Interest (SSSI) that lies within 100m of the northern section of the Scheme and 50m of the southern end of the Scheme no direct or indirect impacts on the other seven nationally designed sites are anticipated due to the intervening distances.

4.5 Depending on the timing, duration of the construction and method of construction there is a potential risk of disturbance to wading bird species associated with the Aber Afon Conwy SSSI notably curlew, redshank and oystercatcher. There is also potential for any new lighting to disturb the natural behaviour of these species.

4.6 Furthermore, there is potential for runoff and pollution from the construction works and operational use to enter the SSSI via the Afon Ganol and be detrimental to the SSSI and the communities and species it supports.

4.7 There is also one statutory locally designated wildlife sites within 5km, Bodlondeb Woods LNR of which is 1.8km West of the Scheme. However, given the intervening distance and the small-scale nature of the Scheme no direct or indirect impacts are anticipated on the LNR.

Local Wildlife Sites

4.8 All non-statutory local wildlife sites are located at least 1km distance from the Scheme and as such no direct or indirect impacts are anticipated upon these non-statutory wildlife sites. They are therefore scoped out from further assessment.

Other Wildlife Designations / Consultation Zones

4.9 The proposed Scheme lies within the RSPB Conwy Reserve. The majority of trees and scrub along the proposed Scheme route have already been removed. Depending on the timing, duration of the construction and method of construction there is a potential risk of disturbance to habitats and species within the Reserve. There is potential for runoff and pollution from the construction works and operational use to impact the Reserve and species it supports.

4.10 Given the small-scale nature of the proposed works, no direct or indirect impacts are anticipated on the Buglife B-line.

Habitats and Flora

Notable Habitats

4.11 The following priority habitats are identified within and immediately adjacent to site:

- Afon Ganol (Statutory Main River);
- Coastal and floodplain grazing marsh;
- Lowland fens and reedbeds; and
- Saltmarsh.

4.12 None of the habitats currently present on site qualify as habitats of principal importance under S7 of the Environment (Wales) Act 2016. The semi-natural woodland is small and effectively a group of trees dominated by relatively young willow species and has no woodland structure. The remaining habitats result from the creation of the reserve approximately 30 years ago.

Other Habitats

Woodland, trees and scrub

4.13 Clearance of the majority of the young semi-natural and plantation broad-leaved woodland, scrub and young trees has already been completed though some further removal will be required at the southern end of the Scheme. An arboriculture survey has been commissioned to quantify the impacts on trees and woodland. Whilst these habitats are relatively young, they do provide habitats for a range of species and it is recommended that replacement planting is accommodated as part of a landscaping Scheme.

Grasslands

4.14 The grasslands within the Scheme are limited in extent and have evolved since the creation of the reserve. Small losses and temporary impacts to these grasslands are not considered to be a limiting factor for the proposed Scheme,

Running water

4.15 The proposed Scheme involves a new crossing over the Afon Ganol and the construction of ramp alongside it to bridge over the railway. Based on the information currently available the foundations will be set back from the banks but there is the potential for indirect impacts on the watercourse through lighting, dust and pollution.

All other habitats

4.16 The proposed new cycle path will result in the loss of small areas of bare ground, bare ground with perennial vegetation and sections of stone wall. These have limited ecological value and these small losses not considered to be a limiting factor for the proposed Scheme.

Notable Flora

4.17 Although the Ecological Desk Study returned records of bluebell, purple ramping-fumitory and spiked speedwell within 2km of the Scheme, the survey did not record any notable or protected plant species within the Scheme. The survey was however undertaken outside of the optimal survey period and species such as bluebell and purple ramping-fumitory may have not been present at the time of the survey. There may be implications for such species, if they are present within the Scheme.

Invasive Flora

4.18 Invasive plant species giant hogweed, Japanese Rose and Himalayan cotoneaster were recorded along the Scheme route. The survey was however undertaken outside of the optimal survey period and the full extent of these, and other invasive species may have not have been recorded at the time of the survey. In the absence of mitigation, the proposed construction works could provide opportunities for spreading of these invasive species.

Fauna

Amphibians

4.19 No records of GCN were returned during the desk study or from consultation with the RSPB. It is considered unlikely that GCN are present within the Reserve or immediate landscape and therefore the species would not be impacted by the proposed Scheme. As such surveys for GCN are not recommended.

4.20 There are multiple waterbodies and wet ditches present within the reserve that may offer suitable breeding habitat for common amphibians including common toad (S7) that have been recorded within the reserve. These mobile common amphibian species are likely to be present within the terrestrial habitats along the Scheme using them for shelter, foraging and commuting. As such there are implications for the proposed Scheme with regard to common toad and other amphibian species.

[redacted]

4.21 [redacted]

4.22 [redacted]

4.23 [redacted].

Bats

Roosting

4.24 Buildings B1, B2 and B3 have negligible bat roosting suitability, however the six trees recognised as having PRF-I bat roosting suitability may be disturbed or impacted during construction works and as such mitigation measures are required.

4.25 There remains a chance of a bat roost being present in the railway cutting/slope over which the bridge is being constructed.

Commuting and Foraging

4.26 Further limited removal of the existing, semi-natural broad-leaved woodland and dense continuous scrub will be required. This is unlikely to cause a large or direct impact to the local populations of bats due to the small scale and nature of the proposed works. As such, no significant loss of foraging and commuting habitat or habitat fragmentation is anticipated from the proposals.

Birds

4.27 There is a risk of damage or destroying a nest if tree felling or lopping or vegetation clearance is carried out in the nesting period (generally considered to be between March to August inclusive, although geographical position of the Scheme will influence this period and some species nest also commonly nest outside this period). As further vegetation clearance will be required impact on the nesting and foraging bird communities within the site could result as a result the Scheme.

Hedgehog

4.28 The dense/continuous scrub, scattered scrub and woodland habitats provide opportunities for hedgehog sheltering, foraging and ranging. Given the limited extent of vegetation removal required, loss of these habitats within the Scheme is unlikely to impact local populations of hedgehog, however works could produce resting habitat (i.e. brash piles, log piles, pipes left over night) and result in possible death/injury of individuals during site clearance and groundworks. Therefore, there will be implications for the proposed development with regard to hedgehogs.

Polecat

4.29 Although no evidence of Polecat was observed during the survey the removal of suitable habitats could result in the possible death/injury of individuals during site clearance and groundworks. Therefore, there will be implications for the proposed development with regards to polecat.

Otter

4.30 Evidence of otter (spraint) was identified adjacent to the southern end of the Scheme indicating they are commuting and foraging in the vicinity. Although the vegetation has recently been removed in proximity to the Afon Ganol there is potential for it to regrow

and create suitable cover for resting/laying up. As result, there is a potential risk that otters could be disturbed and become trapped in excavations during construction. Therefore, there will be implications for the proposed development with regards to otter.

Reptiles

4.31 Habitats within the Scheme offer suitable foraging, resting and commuting habitat for reptiles and as such there is a risk of direct impacts to potential, common reptile species (injury and killing) during the construction works. Therefore, there will be implications for the proposed development with regards to reptiles.

Fish

4.32 Any direct impacts on the fish species are considered unlikely as no in channel works are proposed and only a limited section is crossed by a new bridge. However, there is the potential for indirect impacts on the adjoining watercourse through lighting, dust and pollution during the construction period.

Invertebrates

4.33 Some small-scale loss of invertebrate habitat may occur however no significant impacts to invertebrate populations are anticipated due to the limited extent of the works and lack of any significant abundance of suitable food sources or breeding sites that could support an important invertebrate assemblage. There will be no negative implications for the proposed Scheme in relation to invertebrates. Opportunities for providing suitable habitat for invertebrates could be however incorporated into the design and landscaping.

5.0 Mitigation and Enhancement

5.1 This section describes appropriate and proportionate measures for impact avoidance, mitigation and enhancement required or recommended to address the potential ecological effects described in Section 4.0.

Wildlife Sites

Statutory Wildlife Sites

5.2 SSSIs are a statutory notification made under the Wildlife & Countryside Act 1981 (as amended); this Act also includes provision for the protection and management of SSSIs.

5.3 There is potential for the proposed construction works to disturb bird species of the Aber Afon Conwy SSSI depending on the timing, duration and method of construction. The wading birds included with the SSSI citation are predominantly species which will use the estuary during the winter months. Therefore, it is recommended that construction of the Scheme, in particular the bridge over the Afon Ganol and ramp and bridge over the railway are undertaken outside of the core winter months (November – February) to avoid the risk of disturbance to wintering wading birds present on the estuary during adverse weather conditions.

5.4 If construction in the winter months cannot be avoided a mitigation strategy will be required to include measures to minimise disturbance impacts. The measures to be implemented during construction may include a watching brief by an experienced ornithologist to monitor the impacts of the work and inform remedial measures, cessation of works during adverse weather conditions or restrictions on timings of use of specific construction operations/machinery.

5.5 If lighting is required during the construction or operational periods a Sensitive Lighting Design should be implemented as part of the external lighting scheme to avoid indirect impacts of lighting on the notified species.

5.6 There is also potential for runoff and pollution from the construction works and operational use to be detrimental to the SSSI and its notified features. Standard pollution prevention and dust control measures should be set out in a Construction Environmental Management Plan (CEMP) and implemented during site clearance and construction works.

5.7 Drainage details for surface water should be confirmed and consultation undertaken with the Local Planning Authority/Lead Local Flood Authority and NRW to discuss the

proposed drainage strategy and need for necessary permits/consents to avoid adverse impacts on the SSSI.

Standard Recommendations to Preserve Wildlife

5.8 Standard pollution prevention and dust control measures should be set out in a Construction Environmental Management Plan (CEMP) and implemented during site clearance and construction works. The CEMP will identify measures to ensure the potential for indirect impacts on retained habitats within and adjacent to the site.

5.9 It is recommended that ecological Reasonable Avoidance Measures are incorporated, in the form of a Precautionary Working Method Statement (PWMS,) for the protection of habitats and species and that the PWMS is included within the contractors CEMP. The PWMS for habitats and species (where applicable) are provided further within this Chapter (5.0).

Habitats and Flora

Other habitats

Avoidance and Mitigation Required

5.10 Retained trees and woodland should be protected from accidental damage during site clearance and construction, and a Root Protection Zone (RPZ) should be implemented around retained trees in accordance with BS5837:2012 if development is likely to affect any further trees, their roots, and overhanging canopies.

5.11 In line with the Planning Policy Wales (para 6.4.42) replacement planting shall be required at a ratio equivalent to the quality, environmental and ecological importance of the tree(s) lost and this must be preferably onsite, or immediately adjacent to the site, and at a minimum ratio of at least 3 trees of a similar type and compensatory size planted for every 1 lost. This will need to be considered as part of the landscape plans of the proposed Scheme.

Notable and Invasive Flora

Further survey, Avoidance and Mitigation Required

5.12 Further survey within the optimum survey period will be required to confirm the presence of notable flora within the Scheme and inform any additional mitigation measures.

5.13 Invasive plant species (WCA9) were identified throughout the Scheme during the extended Phase 1 habitat survey. These included Giant Hogweed, Japanese Rose and Himalayan Cotoneaster. As the survey was undertaken outside of the optimal survey season it is recommended that a further invasive species survey is undertaken between mid-April and September. This will determine the extent of the invasive non-native species and inform recommendations for the proposed development, including the production of an Invasive Species Management Plan to include measures to remove these species and to prevent their spread during the construction period.

Fauna

Amphibians

5.14 Common toad are a Species of Principal Importance (S7).

Avoidance and Mitigation Required

5.15 Precautionary working measures should be adopted and included in the PWMS to minimise the risk of harm or injury to common amphibian species including common toad. This should include hand searches, staged strimming of vegetation and removal to a saft location of any amphibians found.

Additional Measures or Enhancement Recommended

5.16 Suitable sheltering and hibernation habitat for hedgehogs can be created from the timber created from tree removal.

Badger

5.17 Badgers are protected under the Protection of Badgers Act 1992 from killing, injury and certain acts of cruelty. Their setts are also protected from damage, obstruction or destruction.

Further Survey, Avoidance and Mitigation Required

5.18 [redacted]

5.19 [redacted]

[redacted]

5.20 [redacted]

5.21 [redacted]

Bats

5.22 All British bats are European protected species, afforded full protection under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). Bats are protected from killing or injury, and from disturbance at the place of rest. Bat roosts are also protected from obstruction, damage or destruction (whether or not a bat is in occupation at the time). Certain species are also Species of Principal Importance (S7).

Further survey, Avoidance and Mitigation Required

5.23 There are six trees within the development area with PRF-I grade bat roosting suitability. If impacts on these trees cannot be avoided appropriate compensation required for each PRF-I will be required prior to impacts occurring. No further surveys will be required but removal of the tree will require a precautionary inspection of the PRFs to be completed by a bat licenced consultant and the works undertaken under supervision of the licenced ecologist.

5.24 If no works have been undertaken within twelve months of the last Ground Level Tree Assessments (GLTA) survey (i.e. by March 2025) and works to any trees or woodland habitat are required, then an updated GLTA will be required.

5.25 The eastern side of the railway consists of a vegetated cliff and was not accessible during the survey. As it could only be viewed at a distance the presence of any suitable crevices/voids for bats cannot be fully discounted. It is recommended that consultation is undertaken with CCBC's Ecologist and NRW of how to survey and address any impacts on the cliff/slope on the east side of the railway. Survey may require the use of specialist

climbers and consultation with Network Rail to secure the necessary permissions to access their land.

5.26 If lighting is required during the construction or operational periods a Sensitive Lighting Design should be implemented as part of the external lighting scheme to avoid indirect impacts of lighting on nocturnal and crepuscular species. Proposed lighting should be designed in line with the Institution of Lighting Professionals Guidance Note 08/23 Bats and Artificial Lighting in the UK[21].

Additional Measures or Enhancement Recommended

5.27 To mitigate for the potential loss of the PRF-I trees, and to compensate for the loss of the previously felled woodland a Biodiversity Enhancement and Management Plan (BEMP) is recommended to include the installation of bat boxes.

Birds

5.28 Native nesting birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981 (as amended) from damage and destruction, from the time of nest construction to fledging of the young

Avoidance and Mitigation Required

5.29 It is recommended that any tree, scrub and ground foliage site clearance is undertaken outside of the bird breeding season (i.e. between October and February inclusive), to avoid direct and indirect impacts to nesting birds, although it should be noted that bird nesting can take place within this period as well.

5.30 If clearance outside of the nesting bird season cannot be avoided, or at any time when bird nesting is suspected, a nesting bird check will be required of the affected area by an ecologist/Ecologist Clerk of Works (ECoW) to confirm that no nesting birds are present which will be harmed by the works. The nesting bird check should take place no more than 24 hours prior to the planned vegetation clearance works.

5.31 Large and/or structurally complex areas of vegetation to be removed, such as dense scrub, will be subject to a careful inspection. If nesting bird activity cannot be established in these areas, the areas will require an ecological watching brief, where an ECoW will work alongside the contractors to check and then clear vegetation in small sections. Contractors will remove small areas of vegetation using bow saws and loppers, ensuring disturbance is localised.

[21] Bat Conservation Trust and Institute of Lighting Professionals (2023) Guidance Note 08/23: Bats and artificial lighting in the UK. ILP, Rugby

5.32 If nests are uncovered, works shall cease until the ECoW has determined the status of the nest. Please note that it may not be feasible to clear large and/or structurally diverse areas of dense vegetation during the bird nesting season. The exclusion zone will ensure that there is no disturbance to the nest because of the works. The works will not take place within the exclusion zone until the young have fledged, as confirmed by the ECoW. Monitoring visits will be undertaken by the ECoW of the active nest to confirm when the young have fledged.

5.33 If no active bird nests are found, vegetation clearance within the affected area must take place within 24 hours of completion of the nesting bird check. This will ensure that no bird nests are built within the intervening period between the nesting bird check and vegetation removal.

Additional Measures or Enhancement Recommended

5.34 To compensate for the loss of woodland, trees and scrub a Biodiversity Enhancement and Management Plan (BEMP) is recommended to include the installation of bird boxes. Native landscaping such as new hedgerows should be incorporated in the Scheme.

Hedgehog

5.35 Hedgehogs are protected by the Wildlife and Countryside Act 1981 (as amended). It is listed on Schedule 6 which prohibits certain methods of killing or taking animals. Hedgehogs are also a Species of Principal Importance (S7).

Avoidance and Mitigation Required

5.36 Prior to commencement of works, any potential sheltering and hibernation features for hedgehog within the works area will be removed by hand by the ECoW. This will include features such as log piles, piles of tree branches and brash piles.

5.37 All vegetation clearance works should, where possible, avoid the breeding bird season (March to August inclusive). Vegetation clearance during the breeding bird season will require a nesting bird check by a suitably qualified ecologist immediately prior to vegetation removal (see Birds Section above).

5.38 Clearance of woodland, scrub and grassland habitat will be undertaken using a staged approach, as outlined for common amphibians. This methodology will ensure no harm or injury to hedgehog during vegetation clearance, if present during the works.

5.39 Work likely to cause disturbance during hibernation – for example removal of hibernation habitats such as scrub – should avoid the period November to March. If this cannot be

avoided and a hibernating hedgehog is found, the hedgehog should be moved to a hibernation box placed in a safe place and lined with straw.

Additional Measures or Enhancement Recommended

5.40 Suitable sheltering and hibernation habitat for hedgehogs can be created from the timber created from tree removal.

Polecat

5.41 Polecat are protected by the Wildlife and Countryside Act 1981 (as amended). It is listed on Schedule 6 which prohibits certain methods of killing or taking animals. Polecats are also a Species of Principal Importance (S7).

Avoidance and Mitigation Required

5.42 A pre-clearance check for polecat should be undertaken immediately prior to works commencing on the Scheme by the ECoW or a suitably qualified ecologist. Should an active polecat den be identified at any time, an exclusion zone of a minimum of 30m from the works (where no works can take place) should be implemented to avoid disturbance to this species.

Otter

5.43 Otters are a European protected species and afforded full protection under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). They are also a SPI.

Avoidance and Mitigation Required

5.44 There is potential for the recently removed vegetation to regrow before construction commences and provide cover for otters. As they are a highly mobile species a pre-construction survey by a suitably qualified ecologist is recommended to ensure that otter activity has not changed in the vicinity of the works.

5.45 If an active holt or resting place is found to be present and impacts are anticipated, works should first look to avoid any impacts and where this is not possible, an EPS licence would need to be sought from NRW.

Reptiles

5.46 Common lizard, slow-worm, grass snake are protected under the Wildlife and Countryside Act 1981 (as amended) from killing and injury and are all Species of Principal Importance (S7).

Avoidance and Mitigation Required

5.47 Given the limited extent of the works full reptile surveys are not recommended. Precautionary working measures recommended for common amphibians should be adopted also for reptiles to minimise the risk of harm or injury to the species group.

Additional Measures or Enhancement Recommended

5.48 Suitable sheltering and hibernation habitat for reptiles can be created from the timber created from tree removal.

Fish

Avoidance and Mitigation Required

5.49 The appointed contractors CEMP should include industry standard, best-practice methods on how site run-off and dust will be controlled, how site waste will be managed, how fuel and other spillages will be prevented and will include emergency procedures in the event of a pollution incident. These measures will avoid impacts on fish species.

Invertebrates

Additional Measures or Enhancement Recommended

5.50 To enhance the Scheme for invertebrates a landscaping scheme should be produced using native species. Green walls should be incorporated into design of the bridge ramps.

6.0 Conclusions

6.1 The majority of the Scheme's footprint comprises of recently cleared vegetation in semi-natural broad-leaved woodland, plantation woodland and dense continuous scrub, and uses a sections of an existing access track. The Scheme will lead to the loss of small areas on non-priority habitat, principally modified neutral grassland, semi-natural broadleaved woodland, plantation woodland and dense scrub.

6.2 The design of any lighting scheme (if required) and the construction progamme needs to avoid impacts on Aber Afon Conwy SSSI and its notified features.

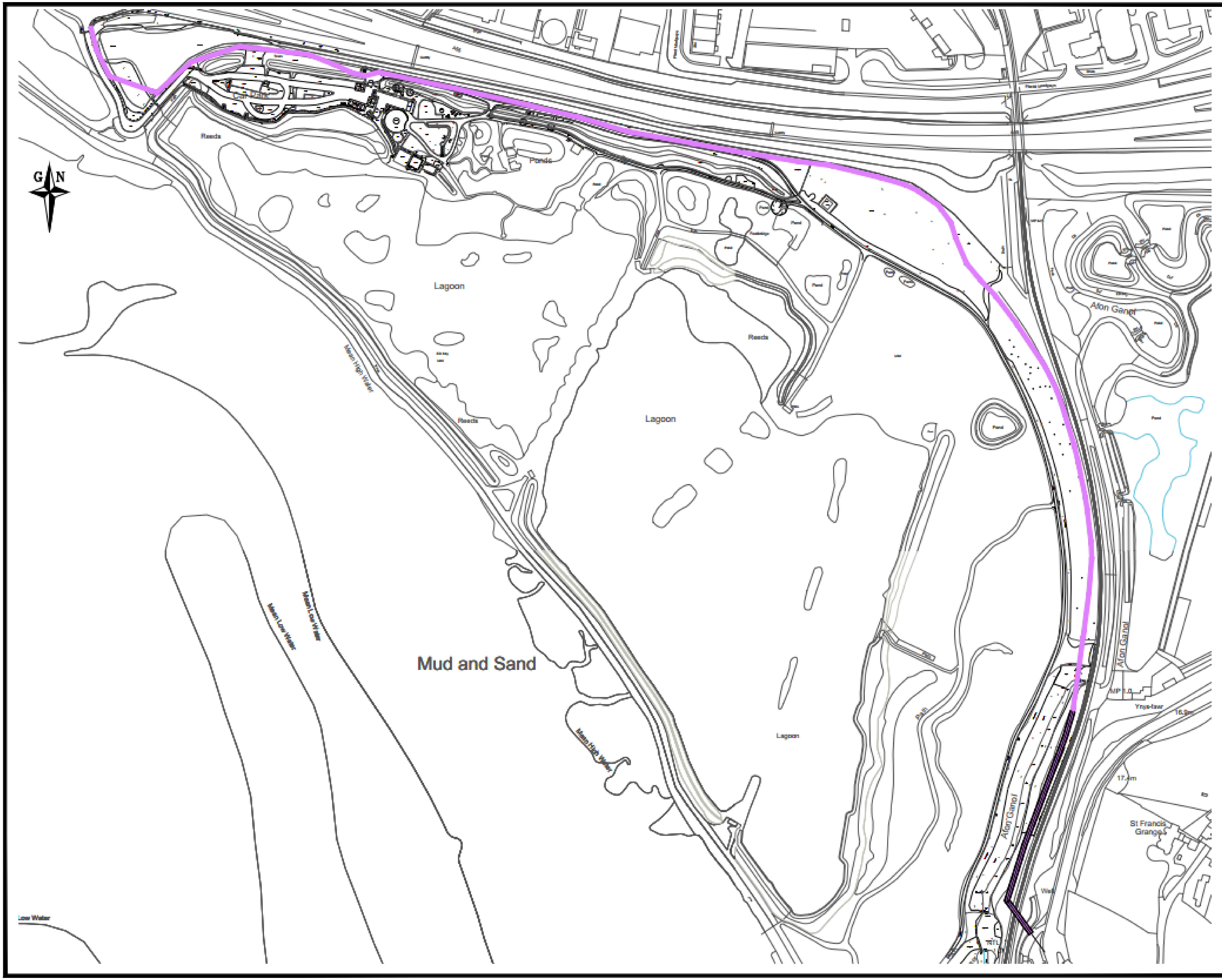
6.3 Retained trees and woodland should be protected from accidental damage during site clearance and construction. In line with the Planning Policy Wales replacement tree planting will be required. A landscaping scheme using native species should also be developed to provide a net benefit for biodiversity.

6.4 Impacts on most protected and SPI (S7) are limited given the restricted scale of the Scheme and impacts can be minimised through the adoption of an ecological precautionary working method statement (PWMS) included within the contractors CEMP.

6.5 [redacted].

6.6 Supervision from an Ecological Clerk of Works (ECoW) will be required during construction to avoid impacts on protected and SPI in the Scheme corridor.

Annex A: Development Proposals



NOTES

KEY

Route 1

REV	DETAIL	DRAWN	CHECKED	DATE
B	Changes to Route.	RGJ	BS	25.10.2023
A	Changes to Route.	RGJ	BS	28.09.2023

PROJECT

LUF - GLAN CONWY TO LLANDUDNO JUNCTION

TITLE

ROUTE OPTIONS THROUGH RSPB RESERVE

CLIENT

TRAFFIC & NETWORK

-

SCALE @ A1	DRAWN	CHECKED	APPROVED	DWG STATUS
1:1500	RGJ DATE: 25.10.2023	BS DATE: 25.10.2023	RGP DATE: 25.10.2023	DRAFT

CONWY
CYNGOR BWRDEISTREF SIROL
COUNTY BOROUGH COUNCIL

ENVIRONMENT, ROADS & FACILITIES

PROJECT Ref:		DRAWING No:	REV
ERNS2301N	/	024	B

Annex B: Target Notes

Target Notes

The habitat survey was undertaken on the 13th and the 22nd March 2024, within an optimal period for extended Phase 1 Habitat Surveys. Many species, including protected, notable or non-native invasive species may not have been in evidence at the time of the survey. Consequently, species lists recorded represent only those species recorded at the time of survey.

Many habitat features recorded as present within a target note area extend beyond the Scheme boundary. Consequently, species lists recorded are unlikely to be comprehensive for the entire habitat feature.

KEY to DAFOR Scale of Abundance

Value	Cover	Notes
D = Dominant	>75%	Rarely used in practice
A = Abundant	51-75%	Very common in many parts of the target note area
F = Frequent	26%-50%	Several plants in several locations across target note area
O = Occasional	11-25%	Several plants in a few locations, or vice versa
R = Rare	1-10%	Small number of individuals, scattered or clustered within target note area/ site

Target Notes Report

Survey 10313-1 A phase 1 survey RSPB Conwy nature reserve. Wetland

Target Note TN01

Young broadleaved plantation woodland with a pathway that has already been cleared prior to bird nesting season. Trees are approx 3-5 metres tall and pathway is approx 3 metres wide. Ground beneath is bare ground, with wood chippings, and some ground cover.

Achillea millefolium	Yarrow	F
Fraxinus excelsior	Ash	F
Hedera helix	Ivy	F
Lolium multiflorum	Italian Ryegrass	F
Corylus avellana	Hazel	O
Crataegus monogyna	Hawthorn	O
Galium aparine	Cleavers	O
Ilex aquifolium	Holly	O
Iris foetidissima	Stinking Iris	O
Leucanthemum vulgare	Oxeye daisy	O
Populus alba	White Poplar	O
Populus tremula	Aspen	O
Prunus sp.	Cherry species	O
Quercus sp.	Oak species	O

Salix species	Willow species	O
Silene dioica	Red Campion	O
Smyrnium olusatrum	Alexanders	O
Acer campestre	Field Maple	R
Ligustrum ovalifolium	Garden Privet	R
Quercus ilex	Evergreen Oak	R
Rosa rugosa	Japanese Rose	R
Taxus baccata	Yew	R
Viola reichenbachiana	Early Wood-dog-violet	R

Target Note TN02

This area although marked on the map as a pond is a small depression in the earth filled with boulders and moss.

Moss sp.	Moss species	F
Prunus sp.	Cherry species	R
Prunus spinosa	Blackthorn	R

Target Note TN03

Plantation broadleaved woodland. There is a raised bund containing boulders.

Hedera helix	Ivy	A
Rubus fruticosus agg.	Bramble	F
Moss sp.	Moss species	O
Populus alba	White Poplar	O
Populus tremula	Aspen	O
Prunus sp.	Cherry species	O
Rosa canina agg.	Dog Rose	O
Salix species	Willow species	O
Agrostis stolonifera	Creeping Bent	R
Alnus glutinosa	Alder	R
Asplenium scolopendrium	Hart's-tongue	R
Betula pendula	Silver Birch	R
Carex pendula	Pendulous Sedge	R
Carex sp.	Sedge species	R
Corylus avellana	Hazel	R
Crataegus monogyna	Hawthorn	R
Dipsacus fullonum	Teasel	R
Dryopteris filix-mas	Male-fern	R
Epilobium sp.	Willowherb species	R
Galium aparine	Cleavers	R
Geranium robertianum	Herb-Robert	R
Ilex aquifolium	Holly	R
Juncus inflexus	Hard Rush	R
Ligustrum ovalifolium	Garden Privet	R
Prunus spinosa	Blackthorn	R
Ranunculus repens	Creeping Buttercup	R
Rumex obtusifolius	Broad-leaved Dock	R

Target Note TN04

A longstanding track, used for vehicular access. Bare ground with a middle section of modified neutral grassland, which is approx 80cm wide.

Moss sp.	Moss species	F
Holcus lanatus	Yorkshire-fog	O
Leucanthemum vulgare	Oxeye daisy	O

Plantago lanceolata	Ribwort Plantain	O
Taraxacum sp.	Dandelion species	O
Agrostis stolonifera	Creeping Bent	R

Geranium robertianum	Herb-Robert	R
Jacobaea vulgaris	Common Ragwort	R
Primula vulgaris	Primrose	R
Rubus fruticosus agg.	Bramble	R
Sonchus oleraceus	Smooth Sow-thistle	R
Trifolium repens	White Clover	R

Target Note TN05

One linear strip of scrub with occasional mounds of stone and earth and boulders.

Cotoneaster simonsii and japanese rose was noted

Populus alba	White Poplar	F
Hedera helix	Ivy	O
Leucanthemum vulgare	Oxeye daisy	O
Rubus fruticosus agg.	Bramble	O
Acer campestre	Field Maple	R
Acer pseudoplatanus	Sycamore	R
Agrostis stolonifera	Creeping Bent	R
Betula pendula	Silver Birch	R
Conium maculatum	Hemlock	R
Corylus avellana	Hazel	R
Cotoneaster simonsii	Himalayan Cotoneaster	R
Crataegus monogyna	Hawthorn	R
Dipsacus fullonum	Teasel	R
Fagus sylvatica	Beech	R
Fraxinus excelsior	Ash	R
Lolium multiflorum	Italian Ryegrass	R
Narcissus bicolor		R
Plantago lanceolata	Ribwort Plantain	R
Potentilla reptans	Creeping Cinquefoil	R
Quercus sp.	Oak species	R
Rosa rugosa	Japanese Rose	R
Rumex obtusifolius	Broad-leaved Dock	R
Ulex europaeus	Gorse	R

Target Note TN06

An area of overgrown scrub, partially inaccessible.

Moss sp.	Moss species	F
Populus alba	White Poplar	F
Hedera helix	Ivy	O
Holcus lanatus	Yorkshire-fog	O
Rosa sp.	Rose species	O
Rubus fruticosus agg.	Bramble	O
Urtica dioica	Nettle	O
Alnus glutinosa	Alder	R
Carex pendula	Pendulous Sedge	R
Conium maculatum	Hemlock	R
Corylus avellana	Hazel	R
Fraxinus excelsior	Ash	R
Galium aparine	Cleavers	R
Heracleum mantegazzianum	Giant Hogweed	R
Salix species	Willow species	R

Target Note TN07

An area of modified neutral grassland and dense/scattered scrub. [redacted]

Himalayan Cotoneaster sp

Jacobaea vulgaris	Common Ragwort	F
Populus alba	White Poplar	F
Agrostis stolonifera	Creeping Bent	O
Bellis perennis	Daisy	O
Moss sp.	Moss species	O
Ranunculus repens	Creeping Buttercup	O
Achillea millefolium	Yarrow	R
Cotoneaster sp.	Cotoneaster species	R
Potentilla reptans	Creeping Cinquefoil	R
Prunella vulgaris	Selfheal	R
Prunus sp.	Cherry species	R
Prunus spinosa	Blackthorn	R
Rosa sp.	Rose species	R
Trifolium repens	White Clover	R
Ulex europaeus	Gorse	R

Target Note TN08

[redacted].

Target Note TN09

Barn owl box (Damaged) in multi-stemmed sycamore tree

Acer pseudoplatanus	Sycamore	R

Target Note TN10

Path that has been cut through bramble scrub. Ground is mud and wood chippings. Young oak straddles the centre of the path and has not been removed.

Hedera helix	Ivy	F
Arum maculatum	Lords-and-Ladies	O
Rubus fruticosus agg.	Bramble	O
Quercus sp.	Oak species	R

Target Note TN11

Land between railway track embankment wall.

Arum maculatum	Lords-and-Ladies	O
Mercurialis perennis	Dog's Mercury	O
Acer pseudoplatanus	Sycamore	R
Asplenium scolopendrium	Hart's-tongue	R
Fraxinus excelsior	Ash	R
Prunus spinosa	Blackthorn	R
Rosa canina agg.	Dog Rose	R

Target Note TN12

Bare ground with perennial vegetation

Moss sp.	Moss species	F
Agrostis stolonifera	Creeping Bent	O
Jacobaea vulgaris	Common Ragwort	O
Rubus fruticosus agg.	Bramble	O

Taraxacum sp.	Dandelion species	O
Quercus sp.	Oak species	R

Target Note TN13

Afon Ganol - Running water (tidal), flowing north to south. 4-5 meters wide and approx. 1-2 metres deep. Manmade, stoned banks. Bramble scrub on embankment and occasional young trees

Phragmites australis	Reed	O
Acer pseudoplatanus	Sycamore	R
Buddleja davidii	Buddleia	R
Rubus fruticosus agg.	Bramble	R

Target Note TN14

Area on southeast side of the reserve with a collection of muti-stemmed young trees over stoned ground. Area had already been partially cleared with some felled trees and piles of wood chippings.

Hedera helix	Ivy	F
Acer pseudoplatanus	Sycamore	O
Arum maculatum	Lords-and-Ladies	O
Populus alba	White Poplar	O
Salix species	Willow species	O
Ulex europaeus	Gorse	O
Lonicera periclymenum	Honeysuckle	R
Polypodium vulgare	Polypody	R
Teucrium scorodonium	Woodsage	R

Target Note TN15

Modified neutral grassland by front entrance.

Japanese rose in scrub edge

Plantago lanceolata	Ribwort Plantain	F
Achillea millefolium	Yarrow	O
Centaurea nigra	Knapweed	O
Dactylis glomerata	Cock's-foot	O
Leucanthemum vulgare	Oxeye daisy	O
Lotus corniculatus	Bird's-foot Trefoil	O
Moss sp.	Moss species	O
Smyrnium olusatrum	Alexanders	O
Trifolium repens	White Clover	O
Agrostis stolonifera	Creeping Bent	R
Jacobaea vulgaris	Common Ragwort	R
Medicago arabica	Spotted Medick	R
Medicago lupulina	Black Medick	R
Ranunculus sp.	Water-crowfoot species	R
Rosa rugosa	Japanese Rose	R

Target Note TN16

Otter spraint found.

Target Note TN17

Marginal vegetation along Afon Ganol

Agrostis stolonifera	Creeping Bent	F
Galium aparine	Cleavers	R
Moss sp.	Moss species	R
Ranunculus sceleratus	Celery-leaved Buttercup	R
Rumex obtusifolius	Broad-leaved Dock	R
Urtica dioica	Nettle	R

Target Note TN18

Cleared pathway along stone embankment

Acer pseudoplatanus	Sycamore	R
Chamaenerion angustifolium	Rosebay Willowherb	R
Galium aparine	Cleavers	R
Geranium robertianum	Herb-Robert	R
Hedera helix	Ivy	R
Holcus lanatus	Yorkshire-fog	R
Quercus ilex	Evergreen Oak	R
Rubus fruticosus agg.	Bramble	R
Salix species	Willow species	R
Sambucus nigra	Elder	R
Teucrium scorodonium	Woodsage	R
Urtica dioica	Nettle	R

Target Note TN19

Scrub belt between path and stone wall (Railway boundary)

Rubus fruticosus agg.	Bramble	F
Clematis vitalba	Traveller's-joy	O
Acer pseudoplatanus	Sycamore	R
Arum maculatum	Lords-and-Ladies	R
Asplenium scolopendrium	Hart's-tongue	R
Buddleja davidii	Buddleia	R
Chamaecyparis lawsoniana	Lawson Cypress	R
Dryopteris filix-mas	Male-fern	R
Fraxinus excelsior	Ash	R
Hypericum androsaemum	Tutsan	R
Lonicera sp.	Honeysuckle species	R
Polypodium vulgare	Polypody	R
Primula vulgaris	Primrose	R
Quercus sp.	Oak species	R
Rosa canina agg.	Dog Rose	R
Rubus idaeus	Raspberry	R
Ulex europaeus	Gorse	R

Target Note TN20

Scrub on cliff above railway line - no access.

Hedera helix	Ivy	A
Prunus spinosa	Blackthorn	F
Crataegus monogyna	Hawthorn	O
Acer pseudoplatanus	Sycamore	R
Quercus sp.	Oak species	R
Rosa canina agg.	Dog Rose	R
Salix species	Willow species	R
Ulex europaeus	Gorse	R

Target Note TN21
Active railway - ballasts

Target Note TN22
Pile of stones, possibly suitable for reptiles

Target Note TN23
Mammal hole - foxhole with piles of bones nearby

Target Note TN24
[redacted]

Drawings

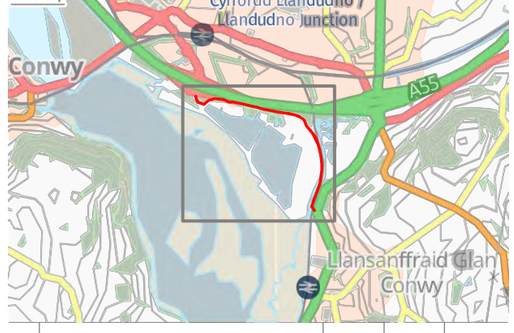
Drawing 1: Phase 1 Habitat Survey (Ref: G10313.013)

[redacted]

KEY

- Site boundary
- H — Target note
- CT — Cotoneaster
- GH — Giant hogweed
- JR — Japanese rose
- E — Scattered scrub
- Broad-leaved tree with at least one potential roost feature suitable for individual/very small numbers of bats
- k — Pile of stones
- Marginal vegetation
- Wall
- Semi-natural broad-leaved woodland
- Dense/continuous scrub
- Running water
- Building
- Bare ground
- Stone embankment

Note:
The locations of habitats and habitat features are indicative.



Rev	Description	Drawn	Approved	Date

THE ENVIRONMENT PARTNERSHIP
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Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project: RSPB Conwy

Title: Phase 1 Habitat Survey

Drawing Number: G10313.013

Drawn	Checked	Approved	Scale	Date
IJ	SP	KR	1:3,500 @ A3	16/04/2024

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