



GEO-ENVIRONMENTAL CONSULTING

BEK Geo-Environmental Consulting

No.2 Landwick Court, Metcalf Drive, Altham Business Park,
Lancashire BB5 5TU

mbuckley@bekenviro.co.uk

bekenviro.co.uk

01254 377622

LAND OFF GWELLYN AVENUE, KINMEL BAY

Ecological Assessment & Potential Bat Roost Survey Report



Prepared for:

Rikki Proffitt

Report Ref: BEK-23060-2 (Rev A)

December 2023

Project Quality Assurance Information Sheet

Site	Land off Gwellyn Avenue, Kinmel Bay
Report Title	Ecological Assessment & Potential Bat Roost Survey Report
Report Status	Final
Report No	BEK-23060-2
Date	December 2023
Prepared For	Rikki Proffitt Kingsway St Asaph Avenue Kinmel Bay Rhyl LL18 5HB
Prepared By	BEK ENVIRO LIMITED Suite One No 3 Mitton Road Business Park Mitton Road Whalley Lancashire BB7 9YE
Author	Carol Edmondson MSc MRSB Natural England bat licence number: 2015-12195 CLS-CLS
Checked	Alice Molyneux BSc (Hons)
Authorised	Michael Buckley BSc (Hons) MSc MIEnvSci CEnv
Contact	mbuckley@bekenviro.co.uk www.bekenviro.co.uk Office: 01254 377622 Mobile: 07906753583

LAND OFF GWELLYN AVENUE, KINMEL BAY

Ecological Assessment & Potential Bat Roost Survey Report

PROJECT NO: 23060
REPORT REF: BEK-23060-2
DATE: December 2023

REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked
A	11 Dec 2023	Minor Mods	CE	MB

GENERAL REPORT LIMITATIONS

BEK Enviro Limited (BEK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and BEK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by BEK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of BEK and the party for whom it was prepared. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

Unless explicitly agreed otherwise, in writing, this report has been prepared under BEK's limited standard Terms and Conditions as included within our proposal to the Client.

The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

Guidelines

This assessment has been designed to meet:

- CIEEM (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 'Guidelines for Preliminary Ecological Appraisal' (2013);
- British Standard 42020 (2013) 'Biodiversity – Code of Practice for Planning and Development'.
- The Bat Conservation Trust publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2023).
- National Planning Policy Wales 2021 (Edition 11)
- National Development Framework (Future Wales –the National Plan 2040)

Summary

Carol Edmondson MSc MRSB undertook an Ecological Assessment and Potential Bat Roost Survey at Gwellyn Avenue, Kinmel Bay, Rhyl on 12/05/23 and 28/09/2023. The aim of the assessment was to complete an extended Phase 1 Habitat Survey of the 'survey area' (all land that will be impacted by the proposals) and to consider the value and suitability of the land and any structures to be affected by the development for protected wildlife species, including identifying any potential for roosting bats (PRA) to inform the impact on ecological features within the site and zone of influence, and inform an Ecological Impact Assessment.

The site itself is of low conservation and wildlife value due to the current habitats present on site and the location in the landscape. The Site is within 10km of Liverpool Bay Special Protection Areas (Wales), The Dee Estuary Ramsar Site & Special Area of Conservation (Wales) and Coedwigoedd Dyffryn Elwy / Elwy Valley Woods Special Areas of Conservation (Wales) (Ancient Semi-natural woodland & important area for bats), therefore consultation with NRW will be required through the planning process.

Historic Biological Record Data show the presence of multiple IUCN Red List & Local BAP bird species within the study area; Schedule 5 Wildlife and Countryside Act 1981 (as amended) and Schedule 2 Habitats Regulations 2011 protected birds, reptiles and mammals are also present in the desk study area, and within 120m of the site boundaries. Therefore a Reasonable Avoidance Method Statement must be followed to minimise impact and disturbance to wildlife; see recommendations below.

Biodiversity enhancement as recommended at 4.3 and mitigation recommendations will be incorporated into any landscaping and building design & a full Biodiversity Enhancement & Management Plan produced to implement the requirements.

Recommendations – This is work you will need to commission to obtain planning permission or comply with legislation.

Ecological Factor	Recommendations
Designated Sites	Following the SSSI IRZ Guidance, & RAMSAR Protection Guidance pre-application consultation with Natural Resources Wales will be required.
Priority habitat	<p><u>Retained Trees & hedgerows:</u> Mitigation measures to include Tree Root Protection Zones. implemented and maintained throughout construction.</p> <p><u>River Gele:</u> works carried out to ‘Guidance for Pollution Prevention Works and maintenance in or near water’: GPP 5 : Version 1.2 February 2018.e.g establishing a buffer zone to protect sensitive habitat.</p> <p>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to current COSHH regulations.</p>
Bats	<p>No further survey of buildings.</p> <p>T2: Survey of potential roosting features by a suitably qualified ecologist prior to any tree surgery or felling.</p>
Birds	<p>Any building works should be commenced outside the period 1st March to 31st August. All active nests will need to be retained until the young have fledged. Carrying out Site clearance outside of this period avoids possible delays often encountered when relying on a nesting bird check prior to commencement. RAMS Method statement for site clearance will be followed (Appendix 4).</p> <p>See also Enhancement measures at 4.3</p>
Badger, Hedgehog and other terrestrial mammals.	<p>A species specific Reasonable Avoidance Measures approach will be adopted as described at Appendix 4 during construction to ensure no animals are harmed.</p> <p>See also enhancement measures at 4.3.</p>
Amphibians and reptiles	<p>A Reasonable Avoidance Measures approach should be adopted as described at Appendix 4 including site clearance under ecological supervision.</p>
	<p>Once planning is granted:</p> <ul style="list-style-type: none"> • Full Biodiversity Enhancement and Management Plan (BEMP) to be produced for the site. • Engagement of Ecological Clerk of Works to ensure BEMP & RAMS are followed correctly. • Walkover & site check max. 48hrs prior to commencement of works.

CONTENTS

1.0 INTRODUCTION AND CONTEXT	4
1.1 Background	4
1.2 Site Context	4
1.2.1 Previous Reports	4
1.3 Scope of the report	4
2.0 METHODOLOGY	5
2.1 Desk Study Methodology	5
2.2 Site Survey Methodology	5
2.3 Breeding Birds and Other Incidental Observations	7
2.4 Suitability Assessment	7
2.5 Limitations	8
3.0 RESULTS AND EVALUATION	9
3.1 Desk Study Results	9
3.2 Designated sites & priority habitats	9
3.3 Landscape	9
3.4 Protected Species:	10
3.4.1 Historical Records from the Local Environmental Records Centre	11
3.5 Field Survey Results	11
3.5.1 Site Feature descriptions and photos	12
3.5.2 Night Walk-Over Survey and Static Detector Results	28
4.0 CONCLUSIONS, IMPACTS AND RECOMMENDATIONS	29
4.1 Informative Guidelines	29
4.2 Evaluation	29
4.3 Biodiversity Enhancement	32
5.0 BIBLIOGRAPHY	34
Appendix 1: Survey Plan	35
Appendix 2: Proposed Site Plan	37
Appendix 3: Desk Study Information	38
Appendix 4: Reasonable Avoidance Measures (RAMS)	39
Method Statement for Reasonable Avoidance Measures	39
Appendix 5: Legislation and Planning Policy	42

1.0 INTRODUCTION AND CONTEXT

1.1 Background

BEK Enviro Limited were commissioned to undertake an Ecological Assessment (EA) and Potential Bat Roost Survey (PRA) at Land at Gwellyn Ave, Kinmel Bay, Rhyl LL18 5HB to support a proposed outline residential planning application.

1.2 Site Context

The site is located at central National Grid Reference SH 99285 78793 in a mixed landscape of residential, commercial and open countryside, on the outskirts of Kinmel Bay. Previously in use as a commercial chicken farm, currently used as a small industrial estate and caravan sales set in approx. 3.54ha.

1.2.1 Previous Reports

No previous reports have been provided for this site by BEK.

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 significant ecological impacts as a result of the development proposals; summarises the requirements for further surveys and mitigation measures, to inform subsequent mitigation proposals, informs the baseline survey data for Biodiversity Net Gain calculations, achieve planning or other statutory consent, and to comply with wildlife legislation.

In addition, the PRA and transect survey aimed to evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how they could use the site. This report is a summary of the use the site by bats at the time of the survey, and potential for future use.

To achieve this, the following steps were taken:

- A desk study area (2km radius of site) and field survey area of 50m from the site boundary/proposed footprint and 'zone of influence' of the scheme have been identified.
- A desk study has been carried out, including a search on MaGIC, and Google Earth websites.
- Local Biological records data from North Wales Biodiversity Records centre (COFNOD) from a 2km radius of the central grid reference has been obtained.
- Baseline information on the site and surrounding area has been recorded through an 'Extended Phase 1 Habitat Survey', including a Phase 1 Habitat Survey (JNCC 2010) and recording further details in relation to notable or protected habitats and species, and habitat classification according to UKHabs.

- The ecological features present within the survey area have been evaluated where possible (CIEEM, 2006).
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act [WCA]) have been identified.
- A bat scoping survey (PRA) and has been carried out on all buildings and trees on site that will be affected by the proposals, and a whole site nighttime 'walkover'.
- Likely impacts on features of value, as a result of the development proposals, have been identified.

A survey plan is presented in Appendix 1, the proposed Project Plan is included in Appendix 2 (where available), desk study results are provided in the Appendix 3, RAMS method statement at Appendix 4 and a summary of relevant legislation can be found in Appendix 5.

Under current guidelines (CIEEM, April 2019) this report will be valid until July 31st 2025. Beyond this date further site visits may be deemed necessary to update the condition of ecological features on site.

2.0 METHODOLOGY

2.1 Desk Study Methodology

Existing biological records data relating to the site and surrounding 2km radius (the study area) are required to conform to national guidelines and were obtained from COFNOD for a 2km radius of the central grid reference. The data search is confidential information not suitable for public release, however a summary is provided at 3.4.4 table 3.

A review of the following information sources has also been undertaken to inform the assessment:

- Landscape structure using aerial images from Google Earth and OS maps
- Designated sites, habitat and granted EPSL records held on Magic.gov.uk.

2.2 Site Survey Methodology

The survey was undertaken by Carol Edmondson MSc MRSB (Natural England bat licence number: **2015-12195** CLS-CLS) on 12th May and 28th September 2023.

The methodology for the Phase 1 habitat survey is based on the best practice publication Phase 1 Habitat Survey Methodology (JNCC, 2010). All land parcels are described and mapped according to JNCC Phase 1 habitat classification (see site map in Appendix 1). Where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure and management.

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.

The likelihood of the presence of protected species is ranked; the habitats on site are evaluated against their likelihood to provide suitable habitat for protected species.

The ecological value of the survey area has been assessed based on the Guidelines for Ecological Impact Assessment (CIEEM, 2018), using geographic frames of reference. The biodiversity value of any identified designated sites, habitat types and associated species assemblages has been considered. Botanical assemblages were assessed; the site was inspected for the presence of red listed (Stroh *et al*, 2014), NERC s.41 listed and LBAP listed species, alongside specially protected species listed under Schedule 8 of the Wildlife and Countryside Act (WCA) (1981) and/or Schedule 5 of the Conservation of Habitats and Species Regulations (2017). The site was also assessed in relation to the presence of invasive species listed under Schedule 9 (Part II) of the Wildlife and Countryside Act (1981) (as amended).

Potential Bat roost assessment

All features that will be impacted by the project proposals were assessed for their bat roosting and/or commuting habitat. The surveyor systematically surveyed all features suitable for signs of bat activity.

For any surveyed buildings and trees:

A non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the building for potential access/egress points, and for signs of bat use. All potential roosting features were inspected by endoscope for signs of or presence of bats where accessible. An internal inspection of the buildings was also made, including areas of derelict or abandoned buildings and the accessible roof spaces of all buildings, using an endoscope & torch. The surveyors paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within any roof space where accessible taking into consideration:

- The availability of access to roosts for bats.
- The presence and suitability of cracks, crevices, tiles, soffits, hollows, ivy growth and other places as roosts.
- Signs of bat activity or presence, such as: bats themselves, droppings, bat grease marks, bat scratch marks, bat urine spatter and bat prey remains.

Transects & nighttime survey:

A nighttime walkover (NTW) dusk survey was carried out as set out in *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2023), with digital, video and static detector recordings also made during the survey. All recordings were analysed in full using VLC video playback software at 65% speed.

Surveyors also used handheld bat detectors; Peersonic RPA3 (with full spectrum recording) bat detectors, and Echo Meter Touch 2 pro detector connected to an iPad. Bat echolocation calls recorded during the surveys were analysed using Wildlife Acoustics sound analysis software Kaleidoscope V3.1.7. to determine the activity recorded; the species and numbers present.

2.3 Breeding Birds and Other Incidental Observations

The surveyor also made note of any other ecological constraints observed during the survey, including the presence or signs of breeding birds.

2.4 Suitability Assessment

The likelihood of occurrence of protected species is ranked according to the criteria listed in Table 1. The habitats on site were evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Table 1: showing criteria considered when assessing the likelihood of occurrence of protected species.

Present	Species are confirmed as present from the current survey or historical confirmed records.
High	Habitat and features of high quality for species/species assemblage. Species known to be present in wider landscape (desk study records). Good quality surrounding habitat and good connectivity.
Moderate	Habitat and features of moderate quality. The site in combination with surrounding land provides all habitat/ecological conditions required by the species/assemblage. Within known national distribution of species and local records in desk study area. Limiting factors to suitability, including small area of suitable habitat, some severance/poor connectivity with wider landscape, poor to moderate habitat suitability in local area.
Low	Habitats within the survey area poor quality. Few or no records from data search. Despite above, presence cannot be discounted as within national range, all required features/conditions present on site and in surrounding landscape. Limiting factors could include isolation, poor quality landscape, or disturbance.
Negligible	Very limited poor-quality habitats and features. No local records from desk study; site on edge of, or outside, national range. Surrounding habitats considered unlikely to support species/species assemblage.

All affected survey features on site were also categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (ed) 2016). The features that dictate the likelihood of roosting bats are summarised in Tables 2 and 3 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 2: Features of a Building that are Correlated With Use by Bats

Likelihood of bats being present	Feature of building and its context
Higher	Buildings/structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).
Lower	A small number of possible roost sites/features, used sporadically by more widespread species. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.

Table 3: Features of a Tree that are Correlated With Use by Bats

Likelihood of bats being present	Feature of tree and its context
Higher	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Lower	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential.

2.5 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.

The survey was carried out to the extent based on those areas visible and accessible, and the conclusions based on the range of evidence available at the time of the survey.

3.0 RESULTS AND EVALUATION

3.1 Desk Study Results

A summary of desk study results is provided below; full details are included in Appendix 3.

3.2 Designated sites & priority habitats

3.2.1 National and internationally designated areas:

The site does not encompass or lie within any nationally designated areas, and none are present within the 2km study radius. The following nationally important designated sites lie within 10km area:

- Liverpool Bay Special Protection Areas (Wales)
- The Dee Estuary Ramsar Site: Special Areas of Conservation (Wales), Special Protection Areas (Wales)
- Coedwigoedd Dyffryn Elwy / Elwy Valley Woods Special Areas of Conservation (Wales) (Ancient Semi-natural woodland & important area for bats)

Pre-application advice will be required from Natural Resources Wales regarding the impact of the development on the these nationally important sites.

3.2.2 Biological Heritage Sites, Local Nature Reserves and Wildlife Sites within 2km survey area (*Priority habitat in brackets*):

- Kinmel Dunes lies at 1800m north.
- Clwyd Estuary and Adjacent fields Wildlife Site lies 350m east (an important area for birds).
- A further 11 candidate sites lie within the 2km study area.
- The site lies within B-lines Cymru – an area designated for enhancement for invertebrates.

3.3 Landscape

A review of the designated sites, aerial photographs (Figure 1), the Magic database and OS maps has been undertaken. Collated together, the site's surrounding habitat is described below:

Located 2km south of the coast at Kinmel Bay and 1000m west of the Clwyd Estuary, the immediate landscape surrounding the site is residential estates to the north, Industrial estates immediately west and open arable countryside to the east and south, with associated hedges and drainage ditches providing commuting and foraging corridors for wildlife. The river Gele runs adjacent to the south, providing habitat and commuting for water vole and otter. In the wider landscape, open grassland habitats in the area all provide good nesting and feeding habitat for farmland birds, and good quality terrestrial habitat for amphibians, reptiles and terrestrial mammals.

The large open areas of Floodplain and Grazing Marsh along the estuary will likely provide ample quality habitat for overwintering waterfowl and wetland birds. The number of records and wildlife sites in the study area show that the surrounding habitat supports a diverse range of species.



Figure 1: Aerial Photo of Site, Showing Landscape Structure.

3.4 Protected Species:

Recorded Species Protected under Schedule 5 Section 9.1a of the Wildlife and Countryside Act 1981 (as amended) and Section 41 (S41) of the 2006 Natural Environment and Rural Communities (NERC) Act, and Habitats Directive, 2017, Section 7 of the Environment (Wales) Act 2016 and local area Biodiversity Action Plan species.

3.4.1 Historical Records from the Local Environmental Records Centre

Table 3. Summary of CBDC Records of Protected Species Within 2 km Data Study Area:

Taxon Group	Common name	Scientific binomial	
Bats	Common pipistrelle	<i>Pipistrellus pipistrellus</i>	2 records closest at 450m, most recent 2017
	Soprano pipistrelle	<i>Pipistrellus pygmeus</i>	1 record at 1.9km most recent 2015
	Myotis	<i>Myotis</i>	4 records at 1.9km most recent 2016
Birds			194 species records from 2013 – 2022 including 9 locally important species. Full records available on request.
Reptiles	Grass snake	<i>Natrix helvetica</i>	2 records @ 1650m
	Common lizard	<i>Zootoca vivipara</i>	6 records closest 1369m in 2020
Amphibians	GCN	<i>Triturus cristatus</i>	6 records, closest 650m in 2010
Terrestrial Mammals	Badger	<i>Meles meles</i>	Sett recorded 120m from site 2017
	European otter	<i>Lutra lutra</i>	12 records along Afon Gele closest 120m from site, most recent 2022.
	Eurasian Red Squirrel	<i>Sciurus vulgaris</i>	Last recorded in 1973
	Water vole	<i>Arvicola terrestris</i>	Multiple records along Afon Gele banks 100m from site, most recent in 2020.
	Brown Hare	<i>Lepus europaeus</i>	4 records within 2km
Other S41 Key Species	Hedgehog	<i>Erinaceus europaeus</i>	27 records including a 2020 record on Gwellyn Ave near site entrance.
Butterflies: LBAP-F, LBAP-G	Greyling	<i>Hipparchia semele</i>	2 records from 2021
	Wall	<i>Lasiommata megera</i>	8 records 2017 - 2021
Moths			8 species within 2km, last record 2002
Plants			6 species within 2km

These records show that the surrounding landscape is an important area for wildlife, in particular birds, with the presence of 3 protected mammal species within 120m of the proposed site boundary.

3.5 Field Survey Results

The environmental variables recorded at the time of the survey:

Date:	12/05/2023	28/09/2023
Temperature	24°C	16°C
Cloud Cover	5%	20%
Wind	BS0	BS 1-2
Rain	none	none

3.5.1 Site Feature descriptions and photos

Site description

The site of the proposed development is an area of approx. 3.54ha comprising a small industrial estate with multiple temporary buildings and static caravans, 3 permanent buildings, and further agricultural and storage buildings including 2 buildings used as stables, making up the former chicken farm. A total of 17 industrial and agricultural buildings were surveyed (numbered on the PRA survey map at App.1).

The site consists mainly of hardstanding and buildings, with some injurious weeds at the boundaries and between buildings. Two paddocks were still in use for horse grazing. The site also includes an overgrown hedge - now a line of mature trees, also a mixed line of mature pollard willow and mature leylandii forms a screen between the industrial estate and the disused agricultural buildings. The southern boundary is a bramble hedge completely obscuring the fence or hedge species beneath.

Surrounding habitat is classed as improved grassland, garden and arable, with the river Gele flowing adjacent to the southern site boundary. Groups of mature coniferous trees are present on the site boundaries.



Figure 2: Aerial view of the site (*Google Earth Pro 2023*).

GEO-ENVIRONMENTAL CONSULTING

Phase 1 Habitats/ UK HABS

Within the site boundary the site comprises majority J36 buildings, UKHABS code u1b5 & u1b6; B4/g4 Improved grassland, C3.1/g3.17 tall ruderal (injurious weeds), line of trees; individual trees, all noted on the survey plan (App.1).

Surrounding the site is B4/ g4 Improved grassland and c1 arable land, bramble scrub and riverbanks to the south. The eastern boundary is made up of overgrown hedge with mature trees, outside the site boundary.

Habitats are described below using Phase 1 & UK HABS codes: Species are listed using the DAFOR scale for purposes of habitat condition assessment.

'L' prefix = in patches



Figure 3: Looking north along the line of mature willow, former agricultural buildings to the right of view.

GEO-ENVIRONMENTAL CONSULTING

B4/g4 Improved grassland

Two areas of grazed paddock (see map at App.1)

Dominated by perennial rye grass *Lolium perenne*, with frequent creeping buttercup *Ranunculus repens*, occasional white clover *Trifolium repens* and broad- leaved dock *Rumex obtusifolius*.



Figure 4a & b: Areas of improved/managed grass, currently grazed by horses.

GEO-ENVIRONMENTAL CONSULTING

C3.1/g3.17 tall ruderal (injurious weeds)

To the south of B11 to the south boundary, between B10 & B11, covering an earth bund behind B12, and a small area opposite the track between the old chicken farm and the industrial area. Each dominated by nettles *Urtica dioica* With other frequent ruderal weeds, arable crop & grasses.

Common nettle	<i>Urtica dioica</i>	D
Creeping thistle	<i>Cirsium arvense</i>	F
Broad-leaved dock	<i>Rumex obtusifolius</i>	F
Rapeseed	<i>Brassica napus</i>	F
Creeping buttercup	<i>Ranunculus repens</i>	F
Ivy	<i>Hedera helix</i>	F
Germander speedwell	<i>Veronica chamaedrys</i>	O
Cleavers	<i>Gallium aperine</i>	O
Cocksfoot	<i>Dactylis glomerata</i>	O
Yorkshire fog	<i>Holcus lanatus</i>	O
Dandelion	<i>Taraxacum spp.</i>	O
Bramble	<i>Rubus fruticosus spp.</i>	O



Figure 5: Area of ruderal weeds to the south of B11, up to the site boundary.



Figure 6: Nettles growing between B10 & B11.

GEO-ENVIRONMENTAL CONSULTING

Trees

T1: Single mature ash to the rear of B5 & B6, in good condition with no sign of disease.

T2: Very mature ash with advanced dieback disease.

TG1, 2, 3 Groups of mature Leylandii & other non-native coniferous species

Lines of trees

Line 1: along the north elevation of B1. Dominated by ash pollards with ivy ground cover.

Line 2: along the south elevation of B1, and continuing to the west of the site. Dominated by 17 mature leylandii, with one willow pollard, and multiple dead stems. Ivy ground cover (sparse)

Line 3: From opposite B3 south to opposite B9. Dominated by Leylandii with occasional ash saplings, mature willow pollard and poplar. Willow pollards more frequent in the group opposite B6-B9. Ground cover is ivy with some injurious weeds.

Full information on tree species in the Arboricultural report.



Figure 7: Tree group 2 - Non-native conifers

GEO-ENVIRONMENTAL CONSULTING



Figure 8: Mature willow trees opposite B9 – B6.

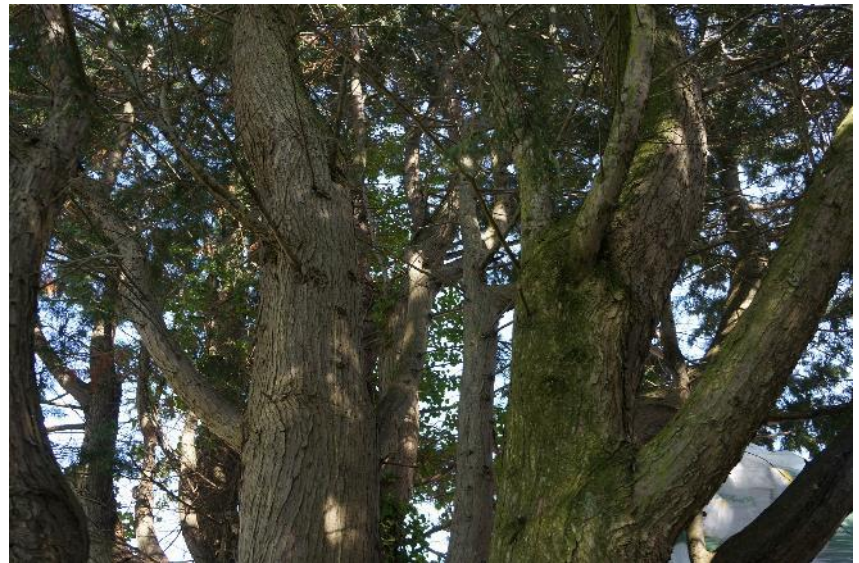


Figure 9: Mature Leylandii opposite B2.

GEO-ENVIRONMENTAL CONSULTING



Figure 10: T1 single mature ash tree, and the hedgerow on the east boundary of the site to the rear of B5 & B6.



Figure 11: T2 on the far left – very mature ash tree with advanced dieback.

GEO-ENVIRONMENTAL CONSULTING



Figure 12: Ash pollards of Tree Line 1, with ivy clad wall behind.

Potential bat roosts in trees & breeding birds

The majority of the trees on site appear to be retained within the current proposals. Most mature trees were Leylandii and willow or ash pollards. All were inspected for bat potential roosting features within the guidelines of the publication *Bat Roosts in Trees* (2018), and with the exception of T2, were of **negligible** roosting value for bats. T2 has 2 potential roosting features and therefore is considered to be of **low** value. This tree will be susceptible to storm damage and is likely to be felled or wind-blown, regardless of the proposals. A survey of the tree is recommended prior to any tree works by a suitably qualified ecologist.

All the trees and scrub on the boundaries provide nesting and sheltering habitat for farmland and garden birds.

Therefore, any tree or shrub clearance will need to be carried out outside the breeding bird season which is March to August inc.

If this is unavoidable, then a breeding bird check will be required by a suitably qualified ecologist prior to the commencement of any clearance. See also RAMS at App.4.

GEO-ENVIRONMENTAL CONSULTING

Other habitats & refugia

Around the buildings are piles of rotting timber and building materials etc. These piles form potential refugia for reptiles, amphibians, invertebrates such as solitary bees & bumblebees and small mammals including hedgehogs.



Figure 13: Examples of timber and building materials around the buildings and along the north boundary.

GEO-ENVIRONMENTAL CONSULTING

Field signs

Evidence of a rabbit warren amongst the trees in Tree line 3, opposite B5 & B6. Multiple holes leading to tunnels, with multiple rabbit and rat droppings present.

No badger signs or setts were recorded on the site.



Figure 14: Example of rabbit hole, with droppings.

Evidence of nesting birds:



Figure 15: Gull nesting on the roof of B9.



Figure 16: One of many swallow nests in B4 stable block.

GEO-ENVIRONMENTAL CONSULTING

Building descriptions and potential bat roosting features.

A total of 17 buildings on site were surveyed for potential bat roosting features (PRF's). A brief description of each building and any PRF's are given below.

B1: Former poultry shed:

A single storey timber building with dual pitched felt roof, currently used for storage.

All gaps were either too wide for crevice dwelling bats, or open to the elements above.

Internally the space was light & airy, with no bat droppings on any surfaces.

B2: garage & outbuildings:

A close group of three small outbuildings. Fruit trees from adjacent property overhanging to the rear.

All with corrugated cement roof sheets, and being open to at least one side.

Closely inspected by endoscope, no signs or evidence of use by bats.



Figure 17: Western elevation of B1 timber poultry shed.



Figure 18: B2 group of outbuildings, showing overhanging trees.

GEO-ENVIRONMENTAL CONSULTING

B3: Agricultural steel framed building

Corrugated metal sheets clad the roof and walls. No PRF's and no signs or evidence of use by bats.



Figure 19: West elevation of B3.

B4

A single storey stable block.
 Timber door frames and windows, roof sheeting was rotten and missing in places with plastic sheeting held down by blocks.
 Evidence of nesting birds (swallows and sparrows)
 Two suitable gaps inspected by endoscope with no evidence of use by bats.
 Overall considered of **negligible** potential for bats roosts, the gaps above the beams considered too large to be suitable for bats.



Figure 20: B4. Breeze block stables.

GEO-ENVIRONMENTAL CONSULTING

B4 internally: The gaps above the beams were too great for use by crevice dwelling bats. A timber bar above a vent was ruled out as potential as too shallow. Marks on the beams suggest historical use by swallows and other birds.



Figure 21: B3 Corrugated cement roof and evidence of nesting birds

B5 - 11 Former poultry sheds

Timber framed and clad with corrugated sheet roofing, and insulated timber boarding to the walls. These buildings are in a very poor state of repair, in some cases on the verge of collapse. All have multiple openings to the interior, with missing sheets and vents making them draughty and very wet in places. There was evidence of birds nesting, rats and mice, but were considered of **negligible** roosting value for crevice dwelling bats. All gaps were wide, open to the elements or covered in cobwebs. All gaps were closely inspected by torch or endoscope. No field signs of bats were recorded in any of these buildings. There is potential as use for sheltered foraging in poor weather conditions.



Figure 22: B10 examples of timber poultry sheds on site, in a poor state of repair.

GEO-ENVIRONMENTAL CONSULTING

B5 - 11 Former poultry sheds - internal

Could be used for feeding by bats & nesting by birds, but the gaps above the timber beams were too wide for crevice dwelling bats to be likely to use. Also suitable for barn owl, but no field signs present.

Negligible bat roost potential.



Figure 23: Typical shed interiors with missing sections in both roof and sides.

B12: small stable

Block built solid walls (no cavity) with corrugated tin sheet roof over timber frame. Stable door left open, no lining to the ceiling. The overhanging roof felt on the north elevation had a lifted section forming a suitable crevice, but was covered in dense cobwebs, and had no evidence of having been used by bats. All timber roofline materials were close fitted with no gaps to the rear suitable for bats to use, no field signs (droppings, insect wings etc) of having been used by bats (or birds).



Figure 24: B12: single stable with block and timber walls.

GEO-ENVIRONMENTAL CONSULTING

B13: Motor repair workshop

Steel framed and corrugated sheet clad with a uPVC office with deck & veranda. No suitable bat roosting features or nesting bird opportunities in this building.



Figure 25: B13: Motor repair garage building.

B14: Caravan sales office and motor repair workshop

Red brick built, with dual pitched corrugated sheet roof. All roofline materials were in a good state of repair with no gaps or crevices. Windows and doors were uPVC and close fitting with no gaps to the interior.

No potential bat roost features.
 No field signs of use by bats.



Figure 26: B14: West elevation of B14

GEO-ENVIRONMENTAL CONSULTING

B15: Open timber storage shed

A corrugated sheet-roofed open sided timber storage shed, with a metal frame.

No potential bat roost features.
 Also within this yard are several static caravans and ISO containers, none of which have any potential bat roosting features.

No field signs of use by bats.



Figure 27: West elevation of B15, with static caravan in the background.

B16: PVC storage shed (in the same yard as B15)

A cement board garden type shed in a vary poor state of repair, with wide gaps all round the roofline and where the wall panels are separating from the roof. Becoming overgrown by brambles Not suitable for use by crevice dwelling bats.

No potential bat roost features.

No field signs of use by bats.



Figure 28: roof materials of B16.

GEO-ENVIRONMENTAL CONSULTING

B17: Storage containers

Storage containers in the southeast corner of a gated yard.

No potential bat roost features.

No field signs of use by bats.



Figure 29: South elevation of B17, with static caravans to the right of view.

3.5.2 Night Walk-Over Survey and Static Detector Results

Summary: The weather was unseasonably warm in September, with plenty of bat activity recorded on other surveys carried out by the same team.

The survey was commenced at dusk and continued until 21:45pm. A single common pipistrelle bat was seen by surveyors and recorded on static detector 1, foraging under the trees to the west of B5 & B6 from 19:15 some 45 minutes after sunset until 21:15pm. This suggests that this bat emerged from a roost some distance away from the buildings on site.

A single noctule was recorded passing in the distance.

No further bats seen by surveyors or cameras or recorded on the static detectors.

4.0 CONCLUSIONS, IMPACTS AND RECOMMENDATIONS

4.1 Informative Guidelines

The habitats on site were evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat. The likelihood of occupancy of protected species is ranked according to the criteria listed in Table 1.

Where this report supports a planning application, the ecological interest of the study area (including the survey area) and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity. It will be clearly stated where a preliminary value can be given and where further information is required.

Appropriate justification for this assessment is provided in Section 2.3 and Table 1 of this report.

4.2 Evaluation

Taking the desk-based assessment and site survey results into account, the following value for wildlife has been placed on each site survey feature.

A pre-works site walk-over survey is recommended to ensure that no protected species e.g badger, otter or water vole have extended their habitat onto the site, by looking for field signs, setts or holts.

Table 4: Evaluation of Site

Ecological Factor	Survey assessment conclusions (Justification at 3.5.1)	Foreseen impacts	Mitigation & Recommendations The following recommendations are valid for two years from the date of this report; if the development is delayed beyond this point, an update survey will be required.
Designated sites	Within 10km Liverpool Bay Special Protection Areas (Wales) The Dee Estuary Ramsar Site: Special Areas of Conservation (Wales), Special Protection Areas (Wales) Coedwigoedd Dyffryn Elwy / Elwy Valley Woods Special Areas of Conservation (Wales) (Ancient Semi-natural woodland & important area for bats).	Potential impact from increased visitor numbers.	Following RAMSAR protection guidance pre-application consultation with Natural Resources Wales will be required.



GEO-ENVIRONMENTAL CONSULTING			
Notable habitats and plants	No notable habitats or plants recorded at the time of the survey. River Gere within 15m of southern boundary.	Potential for pollution during and post construction.	<p><u>Retained Trees & hedgerows:</u> Mitigation measures to include Tree Root Protection Zones. implemented and maintained throughout construction.</p> <p><u>River Gele:</u> works carried out to ‘Guidance for Pollution Prevention Works and maintenance in or near water’: GPP 5: Version 1.2 February 2018.</p> <p>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to current COSHH regulations.</p>
Invasive Non-native species	No INNS were recorded on the site.	No impact	No further action
Bats	<p>Buildings: Taking into account the low number of potential roosting features, low numbers of records within the area and low number recorded foraging during the transect, these buildings have a negligible likelihood of supporting roosting bats.</p> <p>Trees T2 has low bat roosting potential.</p>	<p>Some loss of foraging habitat.</p> <p>Potential impact on low number of bat roosts in trees, should T2 require felling.</p>	<p>No further surveys.</p> <p>Lighting scheme in the final design to be in line with Bat Conservation Trust and Institute of Lighting Professionals Guidance Note 08/23 <i>Bats and artificial lighting at night in the UK</i>.</p> <p>See also Enhancement measures at 4.3</p> <p>Survey of PRF’s prior to felling. If bats are found then a licence to destroy a bat roost from Natural Resources Wales will be required to proceed with felling of this tree.</p>
Birds	There is ample habitat for nesting birds on The Site, both within the buildings and the scrub, hedges and trees around the site.	Active nests could be destroyed during vegetation removal. Breeding and foraging resources for local birds will be destroyed with the removal of	Any building, tree and scrub removal should be undertaken outside the period 1st March to 31st August for nesting birds. All active nests will need to be retained until the young have fledged. Carrying out Site clearance outside of this period avoids possible delays often



<p style="color: green; font-weight: bold;">GEO-ENVIRONMENTAL CONSULTING</p>		<p>vegetation and buildings.</p>	<p>encountered when relying on a nesting bird check prior to commencement. Method statement for site clearance will be followed (RAMS Appendix 4). Due to the historic presence of WCA S41 species in the area this must be strictly adhered to.</p>
<p>Reptiles and amphibians</p>	<p>Areas of terrestrial habitat on site e.g. fallen timber, refuse piles and tussocky grass. No ponds within 250m of the site. Low numbers of records within 2km desk study area. Common lizard & grass snake records within 1km.</p>	<p>The proposed development will result in the loss of areas of terrestrial habitat for amphibians and reptiles. Any present during the works could be injured or killed.</p>	<p>A Reasonable Avoidance Measures (RAMS) approach should be adopted as described at Appendix 4 including site clearance under ecological supervision immediately prior to the start of any construction work.</p>
<p>Water voles/otters</p>	<p>No habitat on site for otter or water voles, however habitat present within 100m. Biological records data confirms records within 100m.</p>	<p>Potential impacts associated with the proposed works with respect to otters and water vole are low/negligible and restricted to the disturbance of otters and water vole as part of the works (noise, lighting, use of heavy machinery) which could potentially utilise the site in very small numbers.</p>	<p>No further surveys but a Precautionary Method of Works is outlined in the Reasonable Avoidance Measures Strategy at App.4 and works to be carried out to Guidance for Pollution Prevention: Works and maintenance in or near water: GPP 5 (NRW, 2018) to address any residual risk of accidental harm to individual otters or water vole.</p>
<p>Badgers, hare, hedgehog,</p>	<p>No field signs of these species were recorded, however Biological Records Data confirms records within 100m. Multiple hedgehog and hare records.</p>	<p>Potential for impact on foraging habitat for low numbers of these species.</p>	<p>A Reasonable Avoidance Measures (RAMS) approach should be adopted as described at Appendix 4 during construction to ensure no animals are harmed. See also enhancement measures at 4.3 to ensure habitats are enhanced on site.</p>

4.3 Biodiversity Enhancement

<p>Enhancements <i>The Local Planning Authority has a duty to ask for enhancements Biodiversity and Geological Conservation.</i></p>	<p>A “Wildlife corridor” and further native hedge and tree planting has been incorporated into the landscape strategy (See Above Zero Plan at App.2) & biodiversity enhancement plan for the site. This will be a mix of native scrub and grasses, with a hedgerow wildflower mix understorey. Grasses to support LBAP butterfly & moth species to be included. Such areas offer habitat for invertebrates which in turn feed the local bird and bat population. Advice on sourcing seed and maintenance is available at</p> <ul style="list-style-type: none"> • http://www.magnificentmeadows.org.uk • Woodland Trust • Seed suppliers e.g Emmorsgate seed <p>The Landscape Strategy (See Above Zero Plan at App.2), will include native pollinator friendly species, including night scented shrubs and fruit producing native species. Tree species for proposed landscaping will be a mix of native species which offer habitat for insects and autumn foraging for birds and reflect the surrounding landscape. Suggested examples include:</p> <table style="width: 100%; border: none;"> <tr><td style="padding-right: 20px;">Oak</td><td>Quercus robur</td></tr> <tr><td>Rowan</td><td>Sorbus aucuparia</td></tr> <tr><td>Bird Cherry</td><td>Prunus padus</td></tr> <tr><td>Silver Birch</td><td>Betula pendula</td></tr> <tr><td>Willow spp.</td><td>Salix spp.</td></tr> <tr><td>Alder</td><td>Alnus glutinosa</td></tr> </table> <p>Any introduced boundary hedgerows will include a mix of native species eg:</p> <table style="width: 100%; border: none;"> <tr><td style="padding-right: 20px;">Hawthorn</td><td>Craetagus montana</td></tr> <tr><td>Hazel</td><td>Corylus avellana</td></tr> <tr><td>Blackthorn</td><td>Prunus spinosa</td></tr> <tr><td>Dog rose</td><td>Rosa canina agg.</td></tr> <tr><td>Rowan</td><td>Sorbus aucuparia</td></tr> <tr><td>Holly</td><td>Ilex aquifolium</td></tr> <tr><td>Native honeysuckle</td><td>Lonicera spp.</td></tr> </table> <p>Yew <i>Taxus baccata</i> offers an excellent evergreen alternative to non-native hedging species.</p>	Oak	Quercus robur	Rowan	Sorbus aucuparia	Bird Cherry	Prunus padus	Silver Birch	Betula pendula	Willow spp.	Salix spp.	Alder	Alnus glutinosa	Hawthorn	Craetagus montana	Hazel	Corylus avellana	Blackthorn	Prunus spinosa	Dog rose	Rosa canina agg.	Rowan	Sorbus aucuparia	Holly	Ilex aquifolium	Native honeysuckle	Lonicera spp.
Oak	Quercus robur																										
Rowan	Sorbus aucuparia																										
Bird Cherry	Prunus padus																										
Silver Birch	Betula pendula																										
Willow spp.	Salix spp.																										
Alder	Alnus glutinosa																										
Hawthorn	Craetagus montana																										
Hazel	Corylus avellana																										
Blackthorn	Prunus spinosa																										
Dog rose	Rosa canina agg.																										
Rowan	Sorbus aucuparia																										
Holly	Ilex aquifolium																										
Native honeysuckle	Lonicera spp.																										
<p>• Bats</p>	<p>There is some foraging habitat in the area in the form of residential gardens, grasslands, hedges, drainage ditches & trees in the immediate area. Mitigation & Enhancement will include: The installation of a minimum of 2 bat boxes – 1 external & 1 integrated bat brick, tile or tube on each new building. This will provide additional roosting habitat for bats. For example:</p> <ul style="list-style-type: none"> • Build-In Woodstone Bat Access (wildcare.co.uk) • https://www.wildcare.co.uk/soffit-bat-box.html • 1FF Schwegler Bat Box • Greenwoodsecohabitats • https://www.greenwoodsecohabitats.co.uk/bats 																										



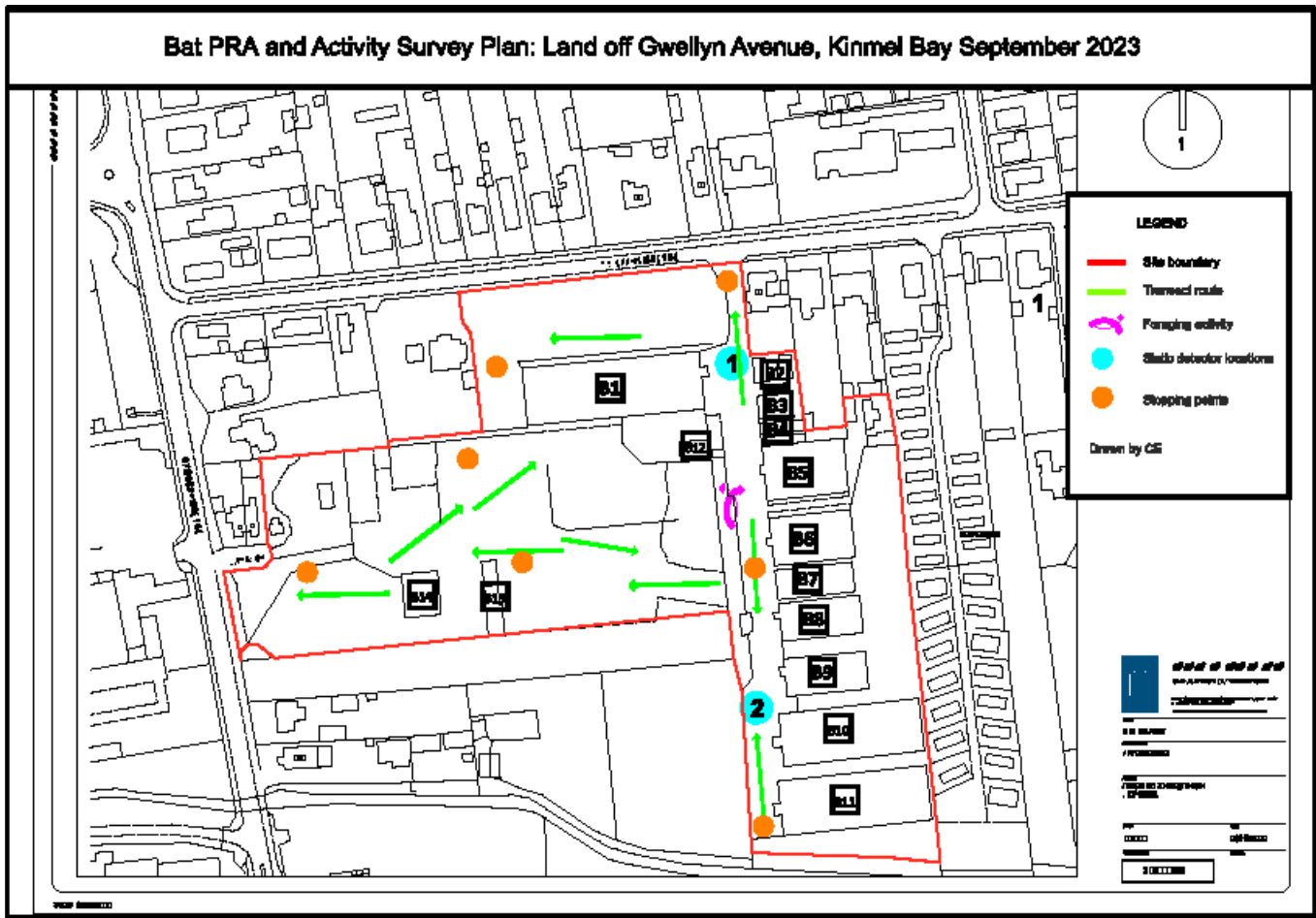
	<p>L CONSULTING</p> <p>Surface bat boxes should be positioned 3-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance.</p> <ul style="list-style-type: none"> • Birds <p>Bird nesting boxes will be included in the building plans to add to the available nesting opportunities in the local area. For example:</p> <ul style="list-style-type: none"> ○ Schwegler 1SP Sparrow Terrace ○ Schwegler 1B nest boxes ○ Schwegler 2H Robin Boxes <p>At least 2 bird boxes to be located on each new building or a sparrow terrace.</p> <p>Nest boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight, away from any artificial lighting source. The type & size of bird box should be varied across the site.</p> <ul style="list-style-type: none"> • Insects <p>Native planting across the site to support pollinating insects and moth/butterfly larvae.</p> <ul style="list-style-type: none"> • Hedgehogs <p>Hedgehog numbers are rapidly declining across the UK; providing a refuge on site will help to protect hedgehogs from predators and loss of habitat in which they can shelter. It is recommended that hedgehog homes are provided on the north elevations of the new buildings. They should be sited in a quiet a position out of prevailing wind in an area with some nearby cover, such as below hedgerow.</p> <p>(See https://www.hedgehoghighway.co.uk/news/ for further information).</p> <ul style="list-style-type: none"> • Lighting <p>Any external lighting should not be directed at any wildlife features of the building as this will cause disturbance.</p> <p><i>See Bat Conservation Trust Guidance note 8/18 Bats and artificial lighting in the UK</i></p>
<p>Further requirements</p>	<p>Once planning is granted:</p> <ul style="list-style-type: none"> • Full Biodiversity Enhancement and Management Plan (BEMP) to be produced for the site. • Engagement of Ecological Clerk of Works to ensure BEMP & RAMS are followed correctly. • Walkover & site check min. 48hrs prior to commencement of works

5.0 BIBLIOGRAPHY

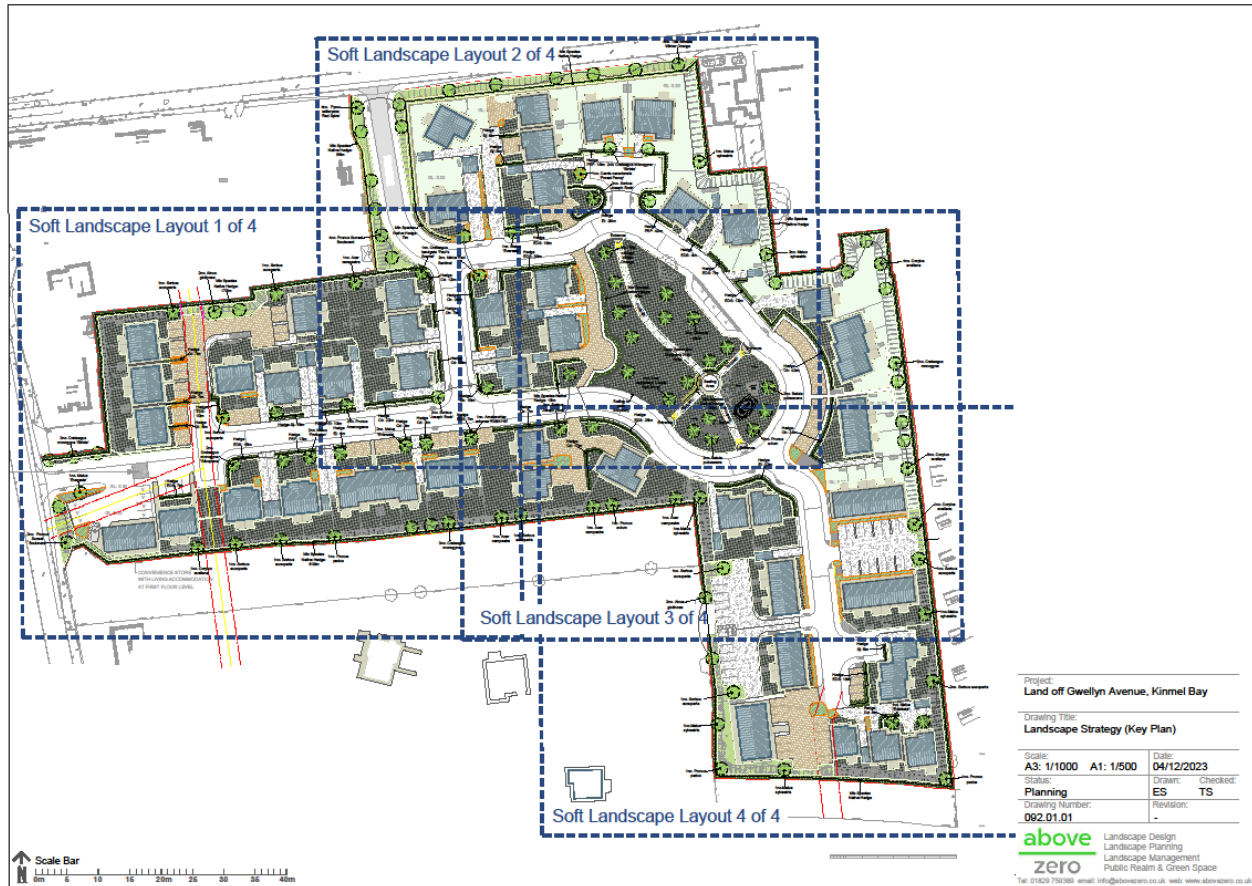
- Andrews *et al* (2016) *Bat Tree habitat Key* A Ecol. www.battreehabitatkey.com
- Bat Tree Habitat Key (2018) *Bat Roosts in Trees*, Pelagic Publishing
- Bat Conservation Trust (2023) *Bats and Artificial Lighting UK*, GN08/23 Institute of Lighting Professionals.
- British Trust for Ornithology (2016) www.bto.org/about-birds/nbw/putting-up-a-nest-box
- BS 42020, Biodiversity – Code of practice for planning and development (2013) <http://www.eoebiodiversity.org/pdfs/BS42020.pdf>
- BS 42020, Biodiversity – Code of practice for planning and development (2013) <http://www.bsigroup.com/LocalFiles/en-GB/biodiversity/BS-42020-Smart-Guide.pdf>
- Cheffings, C. and Farrell, L. (eds.) (2005) *The Vascular Plant Red Data List for Great Britain*. Joint Nature Conservation Committee, Peterborough.
- CIEEM (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 http://www.cieem.net/data/files/Publications/EclIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf
- CIEEM (2013) *Guidelines for Preliminary Ecological Appraisal* Institute of Ecology and Environmental Management http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/GPEA/GPEA_April_2013.pdf
- Collins, J. (ed.) (2012). *Bat Surveys for Professional Ecologists – Good Practice Guidelines*, 3rd edition, Bat Conservation Trust, London. <http://www.bats.org.uk/pages/batsurveyguide.html>
- Garland & Markham (2008) *Is important bat foraging and commuting habitat legally protected?*
- Google Earth (2022)
- Gunnel, K., Grant, G. and Williams, G. 2012, *Landscape and urban design for bats and biodiversity*. Bat Conservation Trust.
- Gregory R.D., et al (2009). *Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and Isle of Man*. <https://www.bto.org/sites/default/files/u12/bocc3.pdf>
- HMSO: *Wildlife and Countryside Act 1981 (as amended)* <http://jncc.defra.gov.uk/page-1377>
- HMSO: *The Protection of Badgers Act 1992 (as amended)* <http://www.legislation.gov.uk/ukpga/1992/51/contents>
- HMSO: *Natural Environmental and Rural Communities Act (2006)* <http://www.legislation.gov.uk/ukpga/2006/16/contents>
- HMSO: *The Conservation of Habitats and Species Regulations (2010)* <http://www.legislation.gov.uk/uksi/2010/490/contents/made>
- JNCC (2004) *Bat Workers Manual*, 3rd Edition. <http://jncc.defra.gov.uk/page-2861>
- Joint Nature Conservation Committee (2010). *Handbook for Phase 1 habitat survey a technique for environmental audit*. http://jncc.defra.gov.uk/PDF/pub10_handbookforphase1habitatsurvey.pdf
- Magic database (2022) <http://www.magic.gov.uk/MagicMap.aspx>
- Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough. http://roost.bats.org.uk/sites/default/files/publications/EnglishNature_BatMitigationGuidelines_2004.pdf
- National Planning Policy Wales 2021 (Edition 11) and the National Development Framework (Future Wales –the National Plan 2040)
- Natural England (2007). *Badgers and Development a Guide to Best Practice and Licensing*. Natural England. Bristol. <http://www.wildlifeco.co.uk/wp-content/uploads/2014/03/badgers-and-development.pdf>
- Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000) *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. *Herpetological Journal* 10(4), 143-155. https://www.waterways.org.uk/wrg/wrg_documents/gcn_hsi
- Paul Edgar, Jim Foster and John Baker (2010). *Reptile Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth <http://downloads.gigl.org.uk/website/Reptile%20Habitat%20Management%20Handbook.pdf>
- Strachen. R; Moorhouse. T, 2011. *The Water Vole Conservation Handbook*, 3rd ed. Wildlife Conservation Research Unit, University of Oxford.

Appendix 1: Survey Plan





Appendix 2: Proposed Site Plan

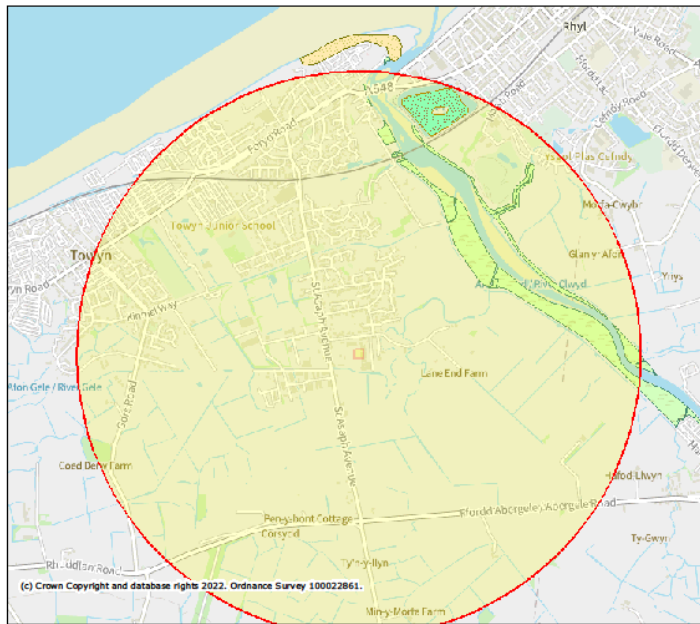


Appendix 3: Desk Study Information

Full historical records can be provided on request.

MAGiC

Gwellyn Avenue habitats



Legend

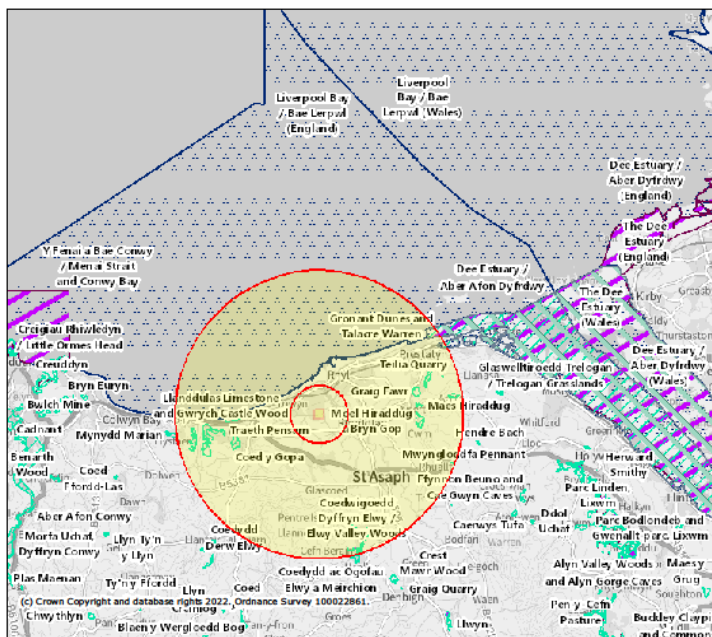
- Saline Lagoons (Wales)
- Saltmarsh (Wales)
- Sand Dunes (Wales)

Projection = OSGB36
xmin = 294400
ymin = 376700
xmax = 304300
ymax = 381400

Map produced by MAGiC on 8 November, 2023.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGiC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

MAGiC

10km radius



Legend

- Ramsar Sites (Wales)
- Sites of Special Scientific Interest (Wales)
- Special Areas of Conservation (Wales)
- Special Protection Areas (Wales)
- Biosphere Reserves (Wales)

Projection = OSGB36
xmin = 252900
ymin = 361600
xmax = 352200
ymax = 408300

Map produced by MAGiC on 9 November, 2023.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGiC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

Appendix 4: Reasonable Avoidance Measures (RAMS)

Method Statement for Reasonable Avoidance Measures

Reasonable Avoidance Measures (RAMS) - Method Statement in relation to:

- Reptiles e.g grass snake, common lizard and slow worm
- Great crested newt (*Triturus cristatus*) (GCN) and common amphibians
- Terrestrial mammals e.g hedgehog, badger, hare
- Birds
- Water vole & otters

Objectives of the Method Statement

Some development related activities on the site, such as excavation creation and removal of materials from site in areas local to otherwise suitable terrestrial habitat, has the potential to affect common amphibian and reptiles, and some terrestrial mammals, whilst protected mammals are known in the extending area. In addition Water vole and otters are recorded within the vicinity and as legally protected species, must also be considered. Therefore, safeguards must be implemented to protect these species and the Method Statement below outlines measures to be implemented in order to ensure this objective is achieved. Following these methods reduces the likelihood of negative impacts, and any offence under the Wildlife and Countryside Act 1981 (as amended) or other legislation being committed.

Timings – preferred timing of scrub clearance to minimise impact

- **GCN** : When the GCN are found in their aquatic habitat and not in terrestrial habitat (core breeding season: March-May inclusive).
- **Nesting Birds**: Outside the key breeding season which is 1st March – 31st August inclusive
- **Mammals** : All year

Due to the conflicting timeframes for amphibians and birds, a site walkover pre-works will be required with relevant habitats checked and hand searched by suitably qualified ecologist or Ecological Clerk of Works.

Before Any Works

- The proposed timings for the operations are to be made clear to the qualified ecologist or the ECoW is to be contacted giving 48hrs notice prior to the commencement of operations to ensure that all site operatives receive a “toolbox” talk and are supplied with a copy of the site’s specific method statement. The ecologist will also be able to make the appropriate arrangements for pre-works survey 24hrs of works commencing.
- Before any work commence at the site all contractors will be attend a ‘tool box’ talk by a suitably licenced ecologist of the potential for protected species (reptiles) to occur on site, what to look out for and what to do in the event that protected animals are found.
- Photograph(s) of relevant protected species will be displayed at the site office and/or kept by the contractor’s personal being for visual reference purposes.



GEO-ENVIRONMENTAL CONSULTING

- Contractors to ask any questions as required following toolbox talk, before signing the Toolbox Talk Audit Form.
- Clearance works within the site should be carried out following the habitat manipulation method.
- Clearance works within the site should only commence after a careful visual inspection (Hand Search) has been carried out by a suitably qualified and experienced ecologist or ECoW has determined that no animals are present on site/targeted areas and is satisfied no animals are at risk.
- Habitat manipulation - vegetation that can support reptiles/GCN/hedgehogs is to be reduced to a height of 150-200 mm, followed by a visual hand search. After the hand search the vegetation is then to be cut to ground level and raked bare.
- Piles of brash and rubble will also require hand removal to avoid harming reptiles or amphibians.

During Works

- Habitat manipulation will encourage animals to temporarily move away/abandon the area.
- For the full duration of the work, vegetation will be kept at ground level.
- No works are to extend off site in the areas adjacent to the red line boundary.
- The impact of works on adjacent habitats will be avoided by the clear demarcation of the works area.
- Works should be restricted to daylight hours only, if not best practices should be followed (BS 5228-1:2009).
- No works within 10m of the river will be undertaken after dusk.
- The use of high intensity lighting which would illuminate the brook will be avoided both during the works period and following on from the completion of the project, to ensure that suitable habitat for otter is maintained adjacent to the site. Lighting hoods, creation of dark corridors will be considered as mitigation measures. Minimise use of lighting to lowest practical levels to enable safe working.
- Ensure lighting is directional and low spill (use of shields) and directed inwards to work areas rather than outward facing towards the river Gele, connecting habitats or residents. The use of sensors and automatic control systems for lighting to minimise the periods when it is on.
- All work must strictly be in accordance with all the relevant Pollution Prevention Guidelines published by the Environment Agency which may include, but is not limited to, PPG1 (general), PPG5 (works in, near, or liable to affect watercourses) and PPG6 (work at construction & demolition sites). Contingency/emergency plan should be drawn up to address chemical spillage, drainage, collision, etc.
- Machinery and materials are to remain on bare ground and reasonable efforts must be made to avoid the compiling of accumulated piles. Materials that do require piling will be stored within areas of bare ground above ground level using pallets in order to prevent animals from seeking shelter beneath.
- Any excavated material stored overnight should be searched prior to being used as infill.
- Where open vertical-sided trenches are excavated it should be ensured that they are not left open overnight to avoid amphibians, reptiles or mammals falling into them and becoming trapped. If trenches cannot be back filled after the working day planks of 150-200 mm wide should be placed in them at a 45-degree diagonal angle to serve as an escape mechanism.
- Excavations should also be checked in the morning on a daily basis for the presence of any animals that may have fallen in during the night. In the event that a protected species is located in trenches then it/they should be left in situ and the ecologist promptly contacted to identify and provide further advice.



GEO-ENVIRONMENTAL CONSULTING

- Be aware that otter may lie-up in stacked pipes or beneath pallets. These features should be inspected daily before the start of works.

If in the event any protected species is found work must cease; the ecologist will be made aware of the finding and can then appraise the situation providing further advice. Failure to halt works may result in committing an offence.

At no point should any person handle a protected species. Unlicensed handling is illegal and untrained handling may cause the animal unnecessary stress and injury.

A Natural Resources Wales Species Mitigation Licence may be required following the discovery of any protected species on site.

Appendix 5: Legislation and Planning Policy

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 respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive the, Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe in order to conserve the 189 habitats and 788 species (non- bird) identified in Annexes I and II of the Directive (as amended).

SPAs are classified under Article 2 of the EC Birds Directive both for rare bird species (as listed on Annex I) and for important migratory species.

SACs and SPAs up to 12 nautical miles (nm) from the coast are afforded protection in the UK under the Conservation of Habitats and Species Regulations 2010 which consolidate all amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994. In Scotland, the requirements of Habitats Directive are implemented through a combination of the 1994 and the 2010 (reserved matters) Regulations. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a means for designating and protecting SACs in UK offshore waters (from 12-200 nm).

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) 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).

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. Further provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

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 Habitats Directive

The EC Habitats Directive aims to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those species of European importance. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (the Conservation Regulations) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). The following notes are relevant for all species protected under the EC Habitats Directive:

In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

The Habitats Regulations do not define the act of 'migration' and, therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.

In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests':

the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment;



GEO-ENVIRONMENTAL CONSULTING

- There is no satisfactory alternative; and
- The action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

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) 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) and Nature Conservation (Scotland) Act 2004.

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 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 for any development works liable to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agency's to define what would constitute a licensable activity. It is not 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 Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC) and are commonly referred to as "Schedule 1" birds.

This affords them protection against:



GEO-ENVIRONMENTAL CONSULTING

- 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.

Herpetofauna (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 herpetofauna 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 Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable 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 liable to affect habitats known to support water voles, the relevant countryside agency 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 (e.g. Natural England) 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:

An EPSM Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable 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:



GEO-ENVIRONMENTAL CONSULTING

- 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:

Works which are liable 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.

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:

An EPSM licence will be required from the relevant countryside agency for works which are liable 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 land owner 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*

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 (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.'

This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.