

# Land at Tremont Parc, Llandrindod Wells Preliminary Ecological Appraisal

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**Prepared for Hughes Architects**

**January 2024**

**Revision 00**

**TURNSTONE ECOLOGY LIMITED**

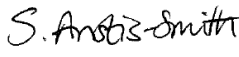
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## ***SURVEY AND REPORT VALIDITY***

It is important that planning decisions are based on up-to-date ecological reports and survey data. However, it is difficult to set a specific timeframe over which reports or survey data should be considered valid, as this will vary in different circumstances. In some cases there will be specific guidance on this (such as for the age of data which may be used to support an EPS licence application) but in circumstances where such advice does not already exist, the Chartered Institute of Ecology and Environmental Management (CIEEM) has provided the general advice set out below.

<b><i>Age of Data / Survey / Report</i></b>	<b><i>Validity</i></b>
<b>Less than 12 months</b>	Likely to be valid in most cases.
<b>12-18 months</b>	Likely to be valid in most cases with the following exceptions: <ul style="list-style-type: none"> <li>• Where a site may offer existing or new features which could be utilised by a mobile species within a short timeframe;</li> <li>• Where a mobile species is present on site or in the wider area, and can create new features of relevance to the assessment;</li> <li>• Where country-specific or species-specific guidance dictates otherwise.</li> </ul>
<b>18 months to 3 years</b>	A professional ecologist will need to undertake a site visit and then review the validity of the report. Some or all of the other ecological surveys updated.
<b>Protected Species Licensing</b>	Licence applications usually only possible using data less than 2 years old

The likelihood of surveys needing to be updated increases with time and is greater for mobile species or in circumstances where the habitat or its management has changed significantly since the surveys were undertaken. Factors to be considered include (but are not limited to):

- Whether the site supports, or may support, a mobile species which could have moved on to site, or changed its distribution within a site;
- Whether there have been significant changes to the habitats present (and/or the ecological conditions/functions/ecosystem functioning upon which they are dependent) since the surveys were undertaken, including through changes to site management;
- Whether the local distribution of a species in the wider area around a site has changed (or knowledge of it increased), increasing the likelihood of its presence.

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## 1 INTRODUCTION

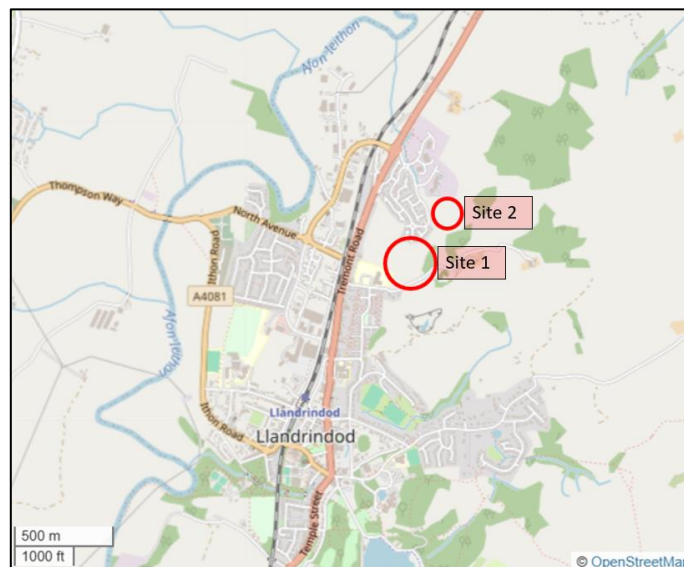
### 1.1 Purpose of Report

This Preliminary Ecological Appraisal (PEA) has been completed in connection with a proposed housing development on land at Tremont Parc, Llandrindod Wells, Powys (OS Grid Location SO 064 620 and SO 066 622). The location of the proposed development site is shown in *Figure 1* and the proposed development plans are fully detailed in *Section 4*.

A site survey was carried out on 9<sup>th</sup> November 2023 by Turnstone Ecology Ltd and consisted of a Phase 1 Habitat Survey and a Protected Fauna Survey and Habitat Suitability Assessment.

This report details survey and assessment methodology along with the results of a desk-based study and on-site surveys. It also provides an assessment of potential impacts and appropriate mitigation to offset any impacts associated with the proposal and to satisfy national and local planning policies.

*Figure 1. Location of proposed development*



### 1.2 Ecological Context

The proposed development site is located at the north-eastern edge of the town of Llandrindod and comprises of two parcels of improved grassland adjacent to existing residential housing areas (*Figure 2*). The parcels of land are within close proximity of each other; separated by an area of wet, sheep-grazed grassland. The proposals involve the construction of 115 dwellings across the two areas of land. Associated gardens, parking, access roads and public open spaces will also be created as part of the proposed development plans.

The proposed development sites are located on the edge of the town and consist of two sloping sheep grazed fields, which are accessed from existing roads within recently built housing areas to the north of Site 1 and west of Site 2.

The northern, western and southern boundaries of the Site 1 field are post and wire fences, with a hedgerow along the western boundary and no formal eastern boundary. The boundaries of the Site 2 field are post and wire fences, with trees along the northern boundary and no formal boundary to the east. Beyond Site 1 the immediate boundaries are houses to the north and south-west, agricultural fields with houses and industrial buildings of Llandrindod to the west and agricultural fields, hedgerows and scattered farms to the east and south. Beyond the immediate boundaries of Site 2 there are houses and a playing field to the west, a municipal building to the north and agricultural fields, hedgerow and woodland to the east and south.

The wider landscape is dominated by the town of Llandrindod to the west with agricultural fields, woodlands and scattered residential dwellings located to the east. Numerous brooks and watercourse intersperse the landscape with the River Ithon located approximately 500m west of the proposed development sites.

Figure 2. Proposed development sites (red line boundaries)



## 2 METHODS

### 2.1 Desk-based Study

Information relating to designated sites and historic records of protected species within 2 km of the proposed development site were obtained from Magic ([www.magic.gov.uk](http://www.magic.gov.uk)) and other freely available information on the internet, such as planning portals.

Any species-specific historic records are detailed within the relevant species accounts in the *Results* section.

### 2.2 Phase 1 Habitat Survey

The survey methods were based on the Phase 1 Habitat Survey approach (Joint Nature Conservation Committee 2010), which is a standardised method to survey main habitat types. Plant nomenclature in this report follows Rose (*Revised Edition 2006*) for native, naturalised and garden varieties of vascular plant. Introduced species and garden varieties are not always identified.

### 2.3 Protected Fauna Survey and Assessment

The habitats on site were assessed for suitability for protected fauna that occur in the region and obvious signs and incidental sightings of protected species were noted where present. Taking into consideration the geographical region and habitat types on and adjacent to site, the protected species and species groups that could be encountered are listed below.

- Badger
- Bats
- Dormouse
- Nesting birds
- Great Crested Newt
- Reptiles

Details of initial survey methods for each relevant species are given below.

#### 2.3.1 Badger

Where access allowed, a comprehensive assessment was carried out to identify areas that are used by Badgers (*Meles meles*) for foraging and sett digging. Signs of Badgers including setts, foraging signs, paths and latrines were recorded where present.



### 2.3.2 Bats

Any trees on or adjacent to the site were visually surveyed to assess them for their potential to support roosting bats, although a thorough inspection of all potential roosting features would not be undertaken as part of the Phase 1 survey.

Habitats were assessed for their suitability for use by foraging or commuting bats. Areas of particular interest vary between species, but generally include sheltered areas and those habitats with good numbers of insects, such as woodland, scrub, hedges, watercourses, ponds, lakes and more species-rich or rough grassland.

### 2.3.3 Dormouse

Habitats were assessed for their general suitability for use by Dormouse (*Muscardinus avellanarius*), which generally use areas of dense woody vegetation cover. Dormice are most likely to be found where there is a wide diversity of woody species contributing to three-dimensional habitat complexity, a number of food sources, plants suitable for nest-building material and good connectivity to other areas of suitable habitat. A search for hazelnuts opened by Dormouse was also completed on and adjacent to site.

### 2.3.4 Nesting birds

Habitat that might be used by nesting birds was identified and actively nesting birds or evidence of nesting birds noted where present. Special consideration was given to the potential presence of Red Kite (*Milvus milvus*) and Barn Owl (*Tyto alba*), which are Schedule 1 protected bird species.

### 2.3.5 Great Crested Newt

The suitability of any aquatic and terrestrial habitat on the site, and in the immediate vicinity, was assessed for suitability for use by Great Crested Newts (*Triturus cristatus*). Great Crested Newts are known to travel up to 500 m between breeding ponds and suitable terrestrial habitat, so a desk-based search was undertaken for any ponds up to 500 m from the site using OS maps and aerial imagery. The terrestrial habitat between the site and these ponds, and therefore connectivity to the site, was also considered.

### 2.3.6 Reptiles

The site was assessed for suitability for use by widespread species of reptiles, with particular attention paid to those features that could be used as basking areas (*e.g.* south-facing slopes), hibernation sites (*e.g.* banks, walls, piles of hardcore) and opportunities for foraging (*e.g.* rough grassland and scrub). The site was assessed for its suitability for the commoner reptile species which have broadly similar habitat requirements but more specific requirements include those shown below (Beebee & Griffiths 2000).

- Common Lizards (*Zootoca vivipara*) use a variety of habitats from woodland glades to walls and pastures, although one habitat they use is brownfield sites

- Slow-worms (*Anguis fragilis*) use similar habitats to Common Lizards, and are often found in rank grassland, gardens and derelict land
- Grass Snakes (*Natrix natrix*) have broadly similar requirements to Common Lizards but with a greater reliance on ponds and wetlands, where they prey on amphibians
- Adder (*Vipera berus*) use a range of fairly open habitats with some cover, but are most often found in dry heath

## 2.4 Constraints

November is not an ideal time to undertake Phase 1 surveys as certain plants may not be present or identifiable and certain animal signs may be harder to detect. However, for a site of this size, location and habitat composition it is not considered that this would have had a significant effect on the survey results or assessment of the site.

## 2.5 Criteria for Assessment

The scientific value of habitats for nature conservation is assessed according to widely accepted criteria of which the most important are naturalness, extent, rarity, and diversity.

The assessment of impacts is based on the principles within Chartered Institute of Ecology and Environmental Management (CIEEM) Environmental Impact Assessment (EIA) Guidance (2019) which assesses the impacts of the proposal on ecological receptors taking in to consideration extent, duration, reversibility, timing, frequency and certainty.

Mitigation and enhancement are designed to reduce the level of impact upon receptors and provide ecological enhancement in order to meet current legislation and planning policy. The information below has therefore been considered during assessment.

- Criteria that have been developed to assist in the identification of statutory Sites of Special Scientific Interest (JNCC 2013)
- Habitats and species of Principal Importance included under Section 41 (England) and Section 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006
- The legal status of habitats and species according to The Conservation of Habitats and Species Regulations 2017 (as amended)
- CIEEM Guidelines (2019) for assessing the value of ecological receptors within a defined geographical context using the following categories: international (*i.e.* Europe); UK and national (England); regional; county; Unitary Authority; local or parish; and zone of influence. Receptors are identified as ‘important’ at these levels, or as ‘not important’
- Species protected by European directives
- Species protected by the *Wildlife and Countryside Act 1981* (as amended)
- Other species listed as scarce or notable in literature issued by conservation organisations or learned societies *e.g.* vascular plant species listed in Stewart *et al.* (1994) and Red and Amber List Birds of Conservation Concern (Stanbury *et al.* 2021)

- Local Wildlife Site selection criteria
- National Policy Planning Framework (NPPF), 2019
- BS42020:2013 – Biodiversity Code of practice for planning and development
- Protected species handbooks and best practice guidelines
- The Powys Local Biodiversity Action Plan (BAP), which identifies and prioritises local habitats and species of conservation importance. These habitats and species are stated as
  - Habitats: Upland oak woodland, Lowland woodpasture and parkland, Wet woodlands, Coniferous woodland, Scrub and ffridd, Linear habitats (hedges and verges), Rivers and stream, Mesotrophic waters, Lowland raised bog, Rhos pastures, Lowland meadows, Lowland dry acid grassland, Upland calcareous grassland, Upland and lowland heath, Traditional orchards and Farmland and Gardens.
  - Species: Alien Plant species, Allis Shad (*Alosa alosa*) & Twaite Shad (*Alosa fallax*), Brown Hare (*Lepus europaeus*), Brown Trout (*Salmo trutta*), Climbing Corydalis Weevil (*Procas granulicollis*), Curlew (*Numenius arquata*), European Otter, Fairy Shrimp (*Chirocephalus diaphanous*), Floating Water Plantain (*Luronium natans*), Globeflower (*Trollius europaeus*), Great Crested Newt, Hazel Dormouse, High Brown Fritillary (*Fabriciana adippe*), Nightjar (*Caprimulgus europaeus*), Pearl-bordered Fritillary (*Boloria euphrosyne*), Pillwort (*Pilularia globulifera*), Pipistrelle Bat (*Pipistrellus pipistrellus* & *P. pygmaeus*), Red Kite, Red Northern Wood Ant (*Formica lugubris*), Red Squirrel (*Sciurus vulgaris*), River Jelly Lichen (*Collema dichotomum*), River Lamprey (*Lampetra fluviatilis*), Slender Green Feather Moss (*Hamatocaulis vernicosus*), Tree Sparrow (*Passer montanus*), Water Vole, Waxcap Grasslands, White-clawed Crayfish (*Austropotamobius pallipes*) and Wood Bitter Vetch (*Vicia orobus*).

### 3 RESULTS

#### 3.1 Desk Study

##### 3.1.1 Designated Sites

There are eight statutory designated sites within 2 km of the proposed development site.

Llanfawr Quarries SSSI is located approximately 100m south-east of the site and is designated for its geological interest.

River Ithon SSSI and River Wye / Afon Gwy Special Area of Conservation (SAC) is located approximately 500m west of the site are part of a large, linear ecosystem acting as an important wildlife corridor, migration route and key breeding area for many nationally and internationally important species including Otter (*Lutra lutra*), Atlantic Salmon (*Salmo salar*), Bullhead (*Cottus gobio*), Brook Lamprey (*Lampetra planeri*) and River Lamprey (*Lampetra fluviatilis*).

Crabtree Green Meadow SSSI is located approximately 800m west of the proposed development site and is of special interest for its neutral grassland vegetation, in particular, a scarce form of grassland associated with river flood-plains.

Bach-y-Graig Stream Section SSSI is located approximately 1 km south-east of the proposed development site and is designated for its geological interest.

Lake Wood SSSI is located approximately 1.1 km south of the proposed development site and is designated for its species-rich mature sessile oakwood that illustrates the variation in vegetation developed on free-draining and waterlogged soils.

Gweunydd Coch-y-dwst SSSI is located approximately 1.2 km north-west of the site and comprises a series of agriculturally unimproved fields with a range of vegetation types and great plant diversity due to variations in drainage.

Coed Aberdulas SSSI is located approximately 1.4 km north of the proposed development site and is designated as an unusually diverse area of broadleaved woodland supporting a variety of plant communities, including two rare in Wales and also provides transitions between woodland and other important wildlife habitats such as wetland.

Moorlands Pastures SSSI is approximately 2 km north-west of the site and is designated as a good example of herb-rich acid grassland and mesotrophic grassland with uncommon species.

### 3.2 Ecological Surveys

Phase 1 habitat types recorded within and immediately adjacent to the proposed development sites are listed below and shown in *Figure 3*.

- Improved grassland
- Hedgerows and trees
- Watercourse

*Figure 3. Aerial image of Site 1 and Site 2 (red line boundaries showing development areas)*



© Google Maps; accessed 12/01/2024

The site or immediately adjacent areas contain habitats suitable for the protected species listed below:

- Badger
- Bats
- Dormouse
- Nesting birds
- Great Crested Newt
- Reptiles

### 3.3 Phase 1 Habitat Survey

#### 3.3.1 Improved grassland

The fields of both proposed development sites are predominantly comprised of sheep grazed short-sward improved grassland, which is tussocky in places due to livestock poaching (*Plates 1-3*). Species across



both fields comprise a mix of common grasses dominated by Creeping Bent Grass (*Agrostis stolonifera*), Annual Meadowgrass (*Poa annua*), Crested Dog's-tail (*Cynosurus cristatus*), Perennial Ryegrass (*Lolium perenne*), Red Fescue (*Festuca rubra*), Cock's-foot (*Dactylis glomerata*) and Yorkshire Fog (*Holcus lanatus*). Herb species assemblage across both fields include Common Dandelion (*Taraxacum officinale* agg.), Creeping Buttercup (*Ranunculus repens*), Common Sorrel (*Rumex acetosa*), White Clover (*Trifolium repens*), Creeping Thistle (*Cirsium arvense*), Common Mouse-ear (*Cerastium fontanum*), Yarrow (*Achillea millefolium*), Common Nettle (*Urtica dioica*), Spear Thistle (*Cirsium vulgare*), Meadow Thistle (*Cirsium dissectum*), Heath Bedstraw (*Galium saxatile*) and Meadow Buttercup (*Ranunculus acris*).

Due to the sloping nature and underlying soil profile an area of wet flush is present centrally in Site 1, with this section dominated by Soft Rush (*Juncus effusus*), Creeping Buttercup (*Ranunculus repens*), Meadow Buttercup (*Ranunculus acris*) and Common Sorrel (*Rumex acetosa*) (Plate 4). The southern end of Site 2 is also predominantly wet grassland which dries seasonally and is dominated by Red Fescue (*Festuca rubra*), Crested Dog's-tail (*Cynosurus cristatus*), Tall Fescue (*Festuca gigantea*), Rough Meadowgrass (*Poa trivialis*), Blue Moor Grass (*Molinia caerulea*), Soft Rush (*Juncus effusus*), Creeping Thistle (*Cirsium arvense*), Creeping Buttercup (*Ranunculus repens*), Marsh Thistle (*Cirsium palustre*), Germander Speedwell (*Veronica chamaedrys*) and Silverweed (*Potentilla anserina*) (Plate 5). A further wet grassland area is present along the north-western boundary of Site 2 where the field slopes towards the adjacent treeline. This area of grassland is dominated by Tufted Hairgrass (*Deschampsia cespitosa*), Meadowsweet (*Filipendula ulmaria*) and Black Medick (*Medicago lupulina*) (Plate 6).

Plate 1. Improved grassland habitat of Site 1 (looking east)



*Plate 2. Improved grassland in Site 1 (looking north from centre of field)*



*Plate 3. Improved grass field within Site 2 (looking north from western boundary)*



*Plate 4. Wet flush, located centrally in Site 1*



*Plate 5. Wet grassland at the southern end of Site 2 (Looking north)*



*Plate 6. North-western boundary of Site 2 (looking south-west)*



### 3.3.2 Hedgerows and trees

Mature hedgerows with trees form the southern and western boundaries of Site 1 and the northern and western boundaries of Site 2 (*Plate 7*). Species present within these hedgerows include Holly (*Ilex aquifolium*), Bullace (*Prunus domestica*), Hawthorn (*Crataegus monogyna*), Wych Elm (*Ulmus glabra*), Hazel (*Corylus avellana*), Rose (*Rose* sp.), Ivy (*Hedera helix*), Common nettle (*Urtica dioica*), Creeping Buttercup (*Ranunculus repens*), Vetch (*Vicia* sp) and Common Bent Grass (*Agrostis capillaris*). Occasional Yew (*Taxus baccata*), Sycamore (*Acer pseudoplatanus*) and Oak (*Quercus petraea*) are also present within the northern section of the western hedgerow boundary of Site 1.

A line of mature Sycamore and Oak trees are present across the central section of Site 1, forming a horizontal line across the site (*Plate 8*). These are likely to have been planted as part of a historic field boundary line. All of the trees in this section show signs of decay and damage either due to wind, livestock or seasonal branch loss in the case of the Oak trees.



*Plate 7. Western boundary hedgerow site 1 (looking north)*



*Plate 8. Central mature tree line in Site 1 (looking west)*



*Plate 9. Northern boundary hedgerow Site 2 (looking west)*



### 3.3.3 Watercourse

A manmade ditch is located along the base of the bund at the northern end of Site 1 (*Plate 9*). This ditch runs along the northern boundary fence line of the adjacent houses. Species present within the ditch include Soft Rush (*Juncus effusus*), Jointed Rush (*Juncus articulatus*), Annual Meadow Grass (*Poa annua*), Crested Dog's-tail (*Cynosurus cristatus*), Field Wood-rush (*Luzula campestris*), Black Medick (*Medicago lupulina*), Silver Weed (*Potentilla anserina*), Creeping Buttercup, Dandelion, Water-cress (*Rorippa nasturtium-aquaticum*), Cat's-ear (*Hypochaeris radicata*), Bird's-foot-trefoil (*Lotus corniculatus*), Rose-Bay Willowherb (*Chamerion angustifolium*), White Clover, Creeping Thistle, Common Vetch (*Vicia sativa*) and Sorrel.

*Plate 9. Ditch along the northern boundary of Site 1*





### 3.4 Protected Fauna

#### 3.4.1 Badger

No conclusive evidence of Badger activity such as footprints, latrines or hair was recorded on or adjacent to the proposed development site although a possible mammal run that could have been made by Badger was noted on the western boundary of Site 1 (*Figure 4 and Plate 10*). Due to the close proximity of the site to residential areas any potential mammal tracks could be from dogs as evidence of regular dog walking paths were noted across the site; particularly within Site 1.

The grassland, hedgerows and trees within the site boundaries provide suitable habitat for foraging and commuting Badger as well as sett creation.

*Plate 10. Mammal run in western hedgerow boundary of Site 1*



#### 3.4.2 Bats

The data search revealed historic records of Daubenton's Bat (*Myotis daubentonii*) (*S. Pickering, 2004; NBN*), Lesser Horseshoe Bat (*S. Pickering, 2004; NBN*), Common Pipistrelle (*Pipistrellus pipistrellus*) (*S. Pickering, 2004; NBN*), Brown Long-eared Bat (*Plecotus auritus*) (*J. Messenger, 1994; NBN*) and Natterer's Bat (*Myotis nattereri*) (*J. Messenger, 1992; NBN*) within 2 km of the site boundary.

The boundary hedgerows and trees around Sites 1 and 2 offer well connected, suitable foraging and commuting habitat for bats. The improved grassland within the development footprint offers some, although limited, foraging and commuting habitat for bat species locally.

### *Preliminary Roost Assessment*

A Preliminary Roost Assessment (PRA) was carried out on all trees present within the red line boundaries of Sites 1 & 2. The line of mature Oak and Sycamore trees within Site 1 have several potential roost features for bats which were identified from a ground level inspection.

Key features and potential roosting areas recorded during the survey can be found in *Table 1, Figure 4 and Plates 11 -16* below. No trees within this area are set for removal; however, changes to the direct landscape will occur as a result of the development proposals, which could impact upon bat roosts/behaviour.

*Table 1. Suitable bat roosting features present at Site 1 tree line*

Tree number	Species	Notable Features	Bat Roosting Suitability
<b>1 and 2</b>	Sycamore, Oak	None observed, smooth-stemmed, no visible features or signs of damage/decay	Negligible
<b>3</b>	Sycamore	Cavity within main stem of the tree; approx. 3m from ground level.	Moderate
<b>4</b>	Oak	Three cavities noted within the main stem and branches of the tree. Cavities appeared to go into the stem, rather than being superficial surface damage.	Moderate
<b>5</b>	Oak	A cavity leading into a branch was noted on Tree 5, with some signs of branch decay noted.	Moderate
<b>6</b>	Oak	A horizontal axial crack through the branch was noted which could offer suitable roosting areas for bats.	Moderate
<b>7</b>	Oak	A horizontal axial crack through the branch was noted which could offer suitable roosting areas for bats.	Moderate
<b>8</b>	Oak	Small cracks in branches and damaged bark on the main stem of the tree were noted. Deep splits behind damaged branches were observed which would lead into the main stem of the tree.	Moderate

Figure 4. Aerial image of the tree line across Site 1 and location of each tree. Observed potential mammal run (yellow line) marked along the western boundary

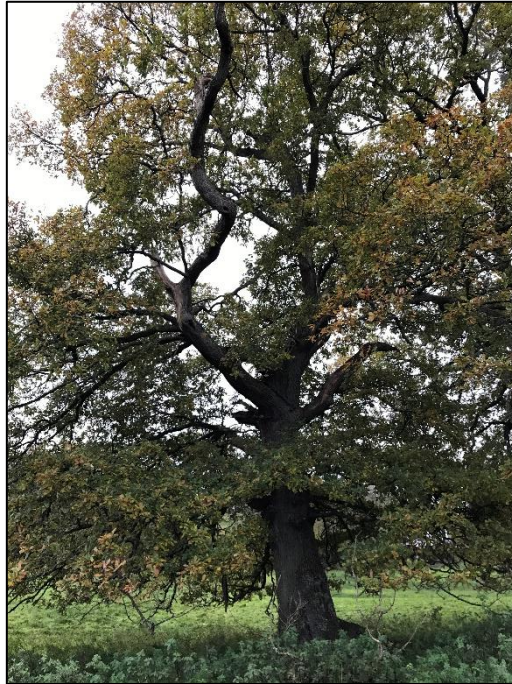


Plate 11. Potential Roost feature in tree 3; cavity within limb off main stem





*Plate 12. Tree 4 with multiple potential roost features including damaged bark, split branches and cavities*



*Plate 13, Tree 5 cavity within branch from seasonal branch loss*



*Plate 14. Tree 6 horizontal axial split along branch of tree*



*Plate 15. Tree 7 horizontal axial split along branch of tree*





*Plate 16. Tree 8 with flaking and split bark and cavities in the stem*



### **3.4.3 Dormouse**

There are no apparent records of Dormouse within 2 km of the proposed development site.

The boundary hedgerows provide some (limited) foodplants and cover for Dormouse although the hedgerows on site are cut annually, poorly connected, gappy and in places defunct. The hedgerows on site do not connect to any hedgerows beyond the development boundary lines that would be considered optimal for Dormice and no records of this species were found within 2km of the site boundary. The site is grazed by livestock which has led to a lack of base vegetation, limiting suitable food sources and foodplants for Dormice.

Due to the hedgerows on site being sub-optimal, a lack of Dormouse records within 2km of the site boundary and a lack of habitat connectivity within the wider landscape it is considered unlikely that Dormice are present on site and therefore this species will not be considered further within this report.

### **3.4.4 Nesting birds**

The hedgerows and trees around the boundaries of the sites and tree line in Site 1 provide suitable habitat for breeding birds. A bird box was observed on one of the mature Oaks within the northern site boundary hedge of Site 2. The boundary hedgerows and trees on site offer suitable cover for a variety of common nesting bird species.

Ground nesting species such as Skylark (*Alauda arvensis*), a UKBAP and Red List species, are very unlikely to occur in the improved grassland due to the close proximity to hedgerows and/or trees, current grazing levels maintaining a short sward and regular human/dog disturbance.



There is no suitable habitat for nesting Barn Owl (*Tyto alba*) on or adjacent to the proposed site but the open grassland within the development areas does provide some suitable habitat for hunting.

### 3.4.5 Great Crested Newt

There are historic records of Great Crested Newt within 2 km of the proposed development site at Llandrindod Lake (*J. Jones, 2002; NBN*) and at a site approximately 1.3 km south of Site 1 (*C. Bradley, 2008; NBN*). There are two ponds within 500m of the sites. Llandrindod lake park is a landscaped waterbody stocked with fish and located 220m south of Site 1, and 325m northwest of Site 2, south of a main road. The second pond within 500m of the site is located approximately 332m northwest of site 2 and 530m north of site 1. This pond is a surface water run-off area for the adjacent A483 main road and is bordered by a landscaped public park/open space. Warehouse buildings and roads fragment this pond from the proposed development sites.

Suitable Great Crested Newt terrestrial habitat on and adjacent to site is limited to the hedgerow bases, tussocky sections within the wet grassland at the southern end of Site 2 and the ditch along the northern field boundary of Site 1 (which dries seasonally). The grassland, hedgerows and trees on site could provide suitable habitat for foraging, commuting and hibernating Great Crested Newts.

The short sward improved grassland within the proposed development areas is not suitable for hibernating or foraging Great Crested Newt due to the lack of cover but could be crossed during dispersal. Although the hedgerows around the boundaries of the sites offer suitable habitat for foraging, commuting and hibernating Great Crested Newt they are fragmented from suitable aquatic breeding areas.

### 3.4.6 Reptiles

There is a record of Common Lizard from a site approximately 800m south-west of Site 1 (*X. Warren, 2023; NBN*).

Suitable habitat for reptiles is limited to the hedgerow bases, wet grassland at the southern end of Site 2 and the ditch along the northern field boundary of site 1 which could be used by foraging, dispersing and hibernating reptiles.

The improved grassland is only of limited suitability for dispersing reptiles and unsuitable for hibernating and foraging due to the lack of cover.

## 4 EVALUATION

### 4.1 Summary of Proposals

The proposed development will occur at two sites adjacent to Tremont Parc, Llandrindod Wells and will involve the construction of 115 residential dwellings across two fields located in close proximity of each other. Associated infrastructure will be incorporated into the proposals, and this will include extending existing access roads, opening field gateways to create permanent residential access routes, creation of parking and turning areas for vehicles and Public Open Space (POS) areas. Landscaping around the newly constructed residential dwellings will also be undertaken in keeping with the surrounding landscape (*Figures 5 & 6*).

The proposed development works will directly affect areas of improved grassland of low ecological value and small sections of boundary hedgerow. The mature tree line located within Site 1 will be retained and incorporated into POS areas and landscaping zones.

*Figure 5. Proposed development Plan; Site 1*



Figure 6. Proposed development plan; Site 2



The Powys BAP lists 17 Habitat Action Plans however none of these will be affected by the proposed development. The Powys BAP lists Linear habitats (hedges and verges), of which small sections of hedgerow will be directly affected by the proposed development plans in order to create and/or improve site access.

The Powys BAP also lists 28 Species Action Plans including Great Crested Newt and Pipistrelle Bat. These species could be directly or indirectly affected by the proposed development and appropriate project design and mitigation will need to be adhered to ensure there will be no negative impacts on them as a result of the proposals. Ecological enhancements are also recommended to ensure the proposals result in a positive ecological gain which is in accordance with the National Planning Policy Framework.

## 4.2 Designated Sites

### 4.2.1 General

There are eight designated sites located within 2 km of the proposed development site: Llanfawr Quarries SSSI, located approximately 100m south-east, the River Ithon SSSI and River Wye / Afon Gwy SAC, located approximately 500m west of the site, Crabtree Green Meadow SSSI located approximately 800m west of the proposed development site, Bach-y-Graig Stream Section SSSI located approximately 1 km south-east, Lake Wood SSSI located approximately 1.1 km south of the proposed development site, Gweunydd Coch-y-dwst SSSI located approximately 1.2 km north-west, Coed Aberdulas SSSI located approximately 1.4 km north of the proposed development site and Moorlands Pastures SSSI located approximately 2 km north-west of the site.

Due to the number of statutorily designated sites within 2km of Tremont Parc and close proximity of the River Ithon SSSI and River Wye/Afon Gwy SAC appropriate pollution control measures and mitigation will be put in place to ensure there are no significant negative impacts on these locally designated sites or on species these designated sites support that may utilise habitats on/adjacent to the development site and the wider landscape.

### 4.2.2 Mitigation

#### *Pollution Control Measures*

Measures are to be put in place to ensure there are no significant negative impacts on watercourses located near to the proposed development site or the River Ithon SSSI and River Wye/Afon Gwy SAC statutory designated sites. Surface water run off from the development site could impact adjacent land, watercourses or nearby designated sites and the species these sites support. As such the following drainage and dirty water treatment methods will need to be implemented to ensure that there are no negative impacts on the River Ithon SSSI and River Wye/Afon Gwy SAC designated sites or habitats that feed into these sites. The hydrology and ecology of watercourses within the wider landscape must remain unaffected by the proposals and that no dirty water enters adjacent watercourses, impacts locally designated sites or pollutes adjacent land areas nearby.

Water treatment and discharge methods will be fully detailed in the planning application but should include the following:

- Spill kits will be stored within the site compound during and post construction and all spills will be cleaned up accordingly;
- All chemical substances and hazardous materials will be stored in accordance EA guidelines with all diesel fuel and other lubricants will be stored in appropriate containers within double bunded storage areas;
- Any washing of concreting vehicles will be done well away from any watercourses and/or drainage systems, with consideration given to surface water run off; and
- Any re-fuelling and re-lubrication will only be completed in an approved area in which a spill kit is available;



- Any incidents / accidents would need to be immediately reported to the Environment Agency.

The proposed drainage methods and mitigation measures will ensure there will no significant negative impacts on the River Ithon SSSI and River Wye/Afon Gwy SAC sites, watercourses adjacent to the proposed development sites and that surface water run-off as a result of the development works has no negative impact on locally designated sites or the habitats and species these sites support.

## 4.3 Habitats

### 4.3.1 General

The proposed development proposals will predominantly impact areas of improved grassland, these areas have a low ecological value. Sections of hedgerow will be lost to improve site access and alterations to the existing bund and manmade ditch will also occur.

### 4.3.2 Mitigation

#### *Tree Planting*

The construction works will affect short-sward improved grassland and will result in the loss of small sections of the boundary hedgerows across Site 1 and Site 2. The grassland habitats are of low ecological value and the loss of the grassland and small sections of hedgerow is unlikely to have a significant negative impact. Specific mitigation measures for the loss of these habitats are not considered necessary, however, the proposals do include ecological enhancement measures that involve the planting of shrubs and trees across site, particularly within the POS areas to the north of the site where the current field gateway is located. This will improve ecological connectivity and biodiversity on site and connect to the boundary hedgerows which link to further fields and habitat in the wider landscape.

Additional tree and shrub planting should comprise native locally occurring species such as Hawthorn, Field Maple, Rowan, Beech, Blackthorn, Holly, Silver Birch, Crab Apple and Alder.

The proposed areas of groundworks will need to be confined to areas that will not impact on the root systems of the existing boundary trees/hedgerows of the site (across both sites) and the retained Oak and Sycamore tree line within Site 1. An appropriate buffer (as detailed in BS5837:2012) will need to be established.

New tree and shrub plants should be fully hardened off 40 – 60 cm bare root whips (1 + 1), planted between November and March and staked and protected with a bio-degradable tree/rabbit guard. Locally occurring native species from British grown stock of local provenance (Powys or surrounding counties) will be used and planting will include a mix of Blackthorn, Hawthorn, Hornbeam (*Carpinus betulus*), Field Maple, Hazel (*Corylus avellana*), Elder (*Sambucus nigra*), Rowan, Spindle, Holly (*Ilex aquifolium*), Dog Rose (*Rosa canina* agg.) and Honeysuckle (*Lonicera periclymenum*). A water supply will be provided at planting of a minimum 170 litres per standard/large, feathered tree, 10 litres per

transplant tree or 4 litres per shrub and mulchings or weed suppressing mats used to aid good establishment of woody species and limit the use of herbicides.

All plants and planting to comply with the requirements of all current / relevant British Standard Specifications including BS8545:2014 and BS3936: Parts 1, 4, 9 and 10 and BS5236:1975 where applicable; BS4428:1989; and Bali / Li / Nursery Trade Tender Document (5<sup>th</sup> edition:1986).

## **4.4 Protected Fauna**

### **4.4.1 Badger**

No setts and no definitive evidence of foraging or commuting Badger was recorded on or adjacent to the proposed development site. A mammal run was noted along the western boundary hedgerow of Site 1; however due to the presence of dog walkers on site this could be a track created by a dog rather than a Badger or other mammal.

The lack of evidence of Badger on site suggests the potential for setts to be dug prior to works is unlikely. Due to the limited areas on site that are suitable for Badger sett creation, high levels of human disturbance and limited suitable foraging habitat for Badger it is considered that the sites are unlikely to be a significant habitat loss for any local Badger populations.

Although significant negative impacts on Badgers are not predicted it is recommended mitigation measures are put in place to ensure foraging Badgers do not become trapped within any excavation works associated with construction works. Excavations should either not be left uncovered overnight or ways of escape for Badgers provided (*e.g.* wooden planks or graded earth banks).

### **4.4.2 Bats**

The boundary hedgerows and trees around Sites 1 and 2 offer well connected, suitable foraging and commuting habitat for bats with the mature Oak and Sycamores within the tree line of Site 1 offering suitable roosting areas for bat species. The improved grassland within the development footprint offers some, although limited, foraging and commuting habitat for bat species locally.

Due to the size of the site, habitats impacted, and the nature of the proposed development, transect surveys will be required to determine key foraging/commuting habitat and routes present on site and inform mitigation and enhancement post-development. For a medium sized site (1-15 ha) of moderate habitat suitability (which the site appears to be) a transect survey will be completed once a month between April and September (*i.e.* 6 visits) with one of the visits consisting of a back-to-back dusk/dawn survey.

Mitigation/enhancement will be required which is likely to include new roosting features such as bat bricks or tubes incorporated into the new residential dwellings. Depending on levels of bat activity on site dark zone and corridors may need to be created across site to ensure the development does not

negatively impact on key bat foraging and commuting routes. The mitigation and enhancement measures will be determined based on the results of the transect surveys as roosting provisions and flight zones are site and species-specific.

A lighting plan showing the location and specification for any proposed lights on the site will be produced and will reflect the Bat Conservation Trust Bats and Lighting in the UK guidance (2023). The lighting plan will include directing lighting away from the retained boundary hedgerows and away from any new roosting provision or dark zones/corridors established in order to ensure that suitable roosting features and foraging and commuting habitats remain unlit. The results of the transect surveys will influence the lighting plan with any key foraging and commuting routes highlighted and remaining unlit during and post-construction works.

Long term bat roosting provision should be incorporated into the proposals and should include a minimum of eight bat boxes or tubes placed incorporated into the newly constructed residential dwellings. Example locations for bat boxes can be seen in *Figure 7*.

#### **4.4.3 Nesting birds**

The boundary hedgerows and mature Oak and Sycamore trees around Sites 1 & 2 are suitable habitats for nesting birds and a bird box was noted affixed to a mature tree on Site 1.

The habitats to be affected by the proposed development works are considered of low suitability for nesting birds. Given the habitat types present on site it is considered extremely unlikely that any *Schedule 1* breeding birds would be present within the proposed development footprint, however the site is of limited suitability for foraging hunting Barn Owl.

The trees and boundary hedgerows on site provide suitable nesting habitat. Works affecting suitable nesting habitat such as the removal of sections of hedgerow, will be completed outside the bird nesting season (March to August inclusive) or, if this is not possible, after a survey by an experienced ecologist. Hedgerow netting is not to be used.

The planting of trees and shrubs across site and within newly created POS areas will only have a positive impact on nesting birds at the site. To increase nesting opportunities post-development a combination of six open-fronted nest boxes, six single hole-fronted nest boxes and four House Martin nesting cups will be installed within the newly constructed residential dwellings on site. These can either be affixed to walls once the development has been completed or incorporated into the design by using integrated tubes or brick-style designs.

Figure 7. Bat and bird box locations (blue stars = bat box, yellow star = bird box or nesting cup)



#### 4.4.4 Great Crested Newt

There are two ponds within 500m of the sites and historic records of Great Crested Newt within 2 km of the proposed development site at Tremont Park.

Suitable Great Crested Newt terrestrial habitat on and adjacent to site is limited to the hedgerow bases, tussocky sections within the wet grassland at the southern end of Site 2 and the ditch along the northern field boundary of site 1 (which dries seasonally). The grassland, hedgerows and trees on site could provide suitable habitat for foraging, commuting and hibernating Great Crested Newts.

The short sward improved grassland within the proposed development areas is not suitable for hibernating or foraging Great Crested Newt due to the lack of cover but could be crossed during dispersal. Although the hedgerows around the boundaries of the sites offer suitable habitat for foraging, commuting and hibernating Great Crested Newt they are fragmented from suitable aquatic breeding areas.

Taking into consideration the distance between the construction areas and nearest record of Great Crested Newt, the absence of suitable breeding ponds within 250m of site and the area of habitats affected by the proposals, it is considered very unlikely that the proposed development will affect this species; however the following precautionary mitigation measures will be put in place:

- Affected and adjacent grassland to be kept short pre- and during the proposed works to deter amphibians and reptiles from occurring in this area.
- Any excavations will be completed during daylight and backfilled (and suitably compacted) before nightfall or if this is not possible a ramp (or similar structure) will be provided to allow



animals an opportunity to escape. Checks of any excavations for animals will also be undertaken prior to backfilling.

- During construction, any storage of piles of materials and excavated earth on the site should be kept to a minimum and stored away from the boundary treelines and raised (e.g. on pallets) to deter Great Crested Newt from using them for temporary cover. Excavated earth should be compacted on the day it is excavated and stored on site for a maximum of three nights.
- **If a Great Crested Newt is found during any stage of the above works all works must cease and an Ecologist called to provide advice and/or attend site. In the event of a Great Crested Newt being found Natural Resources Wales (NRW) will need to be contacted to discuss an acceptable course of action.**

#### 4.4.5 Reptiles

There is a record of Common Lizard from a site approximately 800m south-west of Site 1 (*X. Warren, 2023; NBN*).

Suitable habitat for reptiles is limited to the hedgerow bases, wet grassland at the southern end of Site 2 and the ditch along the northern field boundary of site 1 which could be used by foraging, dispersing and hibernating reptiles. The improved grassland is only of limited suitability for dispersing reptiles and unsuitable for hibernating and foraging due to the lack of cover. Although it is unlikely that reptiles are present on site, the following precautionary measures should be followed:

- Affected grassland to be kept short pre- and during the proposed works to deter reptiles from occurring in this area.
- Any excavations backfilled (and suitably compacted) before nightfall or if this is not possible a ramp (or similar structure) will be provided to allow animals an opportunity to escape. Checks of any excavations for animals will also be undertaken prior to backfilling.
- During construction, any storage of piles of materials and excavated earth on the site should be kept to a minimum and stored at least 5m from the hedgerow and boundary woodland and/or raised (e.g. on pallets) to deter reptiles from using them for temporary cover.
- In the unlikely event of a reptile's being found during works, a suitably experienced ecologist should be contacted, and an appropriate course of action confirmed.

## 5 LEGAL PROTECTION

This section briefly describes the legal protection afforded to the protected species referred to in this report. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation, but summarises the salient points.

### 5.1 Badger

Badger is protected in Britain under the *Protection of Badgers Act 1992* and *Schedule 6 of the Wildlife and Countryside Act 1981* (as amended).

The legislation affords protection to Badgers and Badger setts, and makes it a criminal offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or to attempt to do so;
- interfere with a sett by damaging or destroying it;
- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

### 5.2 Bats

All species of British bat are protected by *The Wildlife and Countryside Act 1981* (as amended) extended by the *Countryside and Rights of Way Act 2000*. This legislation makes it an offence to:

- intentionally kill, injure or take a bat;
- possess or control a bat;
- intentionally or recklessly damage, destroy or obstruct access to a bat roost; and
- intentionally or recklessly disturb a bat whilst it occupies a bat roost.

Bats are also European Protected Species listed on *Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (SI 2010/490)* under *Regulation 41*. This legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats in such a way as to be likely to (a) impair their ability to: (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or b), to affect significantly the local distribution or abundance of the species to which they belong; and
- damage or destroy a breeding site or resting place of a bat; and
- possess, control, transport, sell, exchange a bat, or offer a bat for sale or exchange.

All bat roosting sites receive legal protection even when bats are not present.

Where it is necessary to carry out an action that could result in an offence under the *Conservation of Habitats and Species Regulations 2010 (SI 2010/490)* it is possible to apply for a European Protected Species (EPS) licence from Natural England (NE). Three tests must be satisfied before this licence (to permit otherwise prohibited acts) can be issued:

- Regulation 53(2)(e) states that licences may be granted to “preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.”
- Regulation 53(9)(a) states that a licence may not be granted unless “there is no satisfactory alternative”.
- Regulation 53(9) (b) states that a licence cannot be issued unless the action proposed “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”.

### 5.3 Dormouse

The Dormouse is on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receives full protection under *Section 9*. This species is also listed as European Protected Species on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2010 (SI 2010/490)* which gives them full protection under *Regulation 41*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CRow Act).

Under the above legislation it is an offence to:

- kill, injure or take an individual of such a species;
- possess any part of such species either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb such a species whilst using any place of shelter or protection; or
- sell or attempt to sell any such species.

Dormouse is included as a Priority Species in the UK Biodiversity Action Plan (UKBAP) and also as a species of principal importance for the conservation of biological diversity in England under *Section 74* of the CRow Act.

### 5.4 Nesting Birds

All species of bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981* (as amended). The protection was extended by the CRow Act.

The legislation makes it an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

Certain species of bird are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4)* and *1(5)* of the Act. The protection was extended by the

CRoW Act. The legislation confers special penalties where the above-mentioned offences are committed for any such bird and also make it an offence to intentionally or recklessly:

- disturb any such bird, whilst building its nest or it is in or near a nest containing dependant young; or
- disturb the dependant young of such a bird.

## 5.5 Great Crested Newt

Great Crested Newt is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. These species are also listed as European Protected Species on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2010 (SI 2010/490)* which gives them full protection under *Regulation 41*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CRoW Act).

Under the above legislation it is an offence to:

- kill, injure or take an individual of such a species;
- possess any part of such species either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb such a species whilst using any place of shelter or protection; or
- sell or attempt to sell any such species.

The Great Crested Newt is included as a Priority Species in the UK Biodiversity Action Plan (UKBAP) and also as a species of principal importance for the conservation of biological diversity in England under *Section 74* of the CRoW Act.

## 5.6 Common Reptile Species

Common Lizard, Grass Snake, Slow-worm and Adder are listed under *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), in respect of *Section 9(5)* and part of *Section 9(1)*. This protection was extended by the CRoW Act.

Under the above legislation it is an offence to:

- intentionally or deliberately kill or injure any individual of such a species; or
- sell or attempt to sell any part of the species alive or dead.