

Land Adjacent to Newtown Bypass Preliminary Ecological Appraisal

Prepared for Berrys

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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.

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

Table of Contents

1	Introduction	6
1.1	Purpose of Report	6
1.2	Ecological Context	6
2	Methods	8
2.1	Desk-based Study	8
2.2	Phase 1 Habitat Survey.....	8
2.3	Protected Fauna Survey and Assessment	8
2.3.1	Badger	8
2.3.2	Bats.....	9
2.3.3	Dormouse	9
2.3.4	Nesting birds.....	9
2.3.5	Great Crested Newt	9
2.3.6	Reptiles.....	9
2.4	Constraints.....	10
2.5	Criteria for Assessment	10
3	Results	12
3.1	Desk Study	12
3.1.1	Designated Sites	12
3.2	Ecological Surveys	13
3.3	Phase 1 Habitat Survey.....	14
3.3.1	Grassland.....	14
3.3.2	Tall Ruderals	14
3.3.3	Embankment.....	15
3.3.4	Planted Trees	16
3.3.5	Pond.....	17
3.4	Protected Fauna	18
3.4.1	Badger	18
3.4.2	Bats.....	18
3.4.3	Dormouse	19
3.4.4	Birds	19
3.4.5	Great Crested Newt	19
3.4.6	Reptiles.....	20

4	Evaluation.....	21
4.1	Summary of Proposals.....	21
4.2	Designated Sites	22
4.2.1	General	22
4.3	Habitats.....	22
4.3.1	General	22
4.3.2	Mitigation	22
4.4	Protected Fauna	24
4.4.1	Badger	24
4.4.2	Bats.....	24
4.4.3	Nesting Birds.....	24
4.4.4	Great Crested Newt	25
4.4.5	Reptiles	25
5	Legal Protection	27
5.1	Badger	27
5.2	Bats.....	27
5.3	Dormouse	28
5.4	Nesting Birds.....	28
5.5	Great Crested Newt	29
5.6	Common Reptile Species	29

1 INTRODUCTION

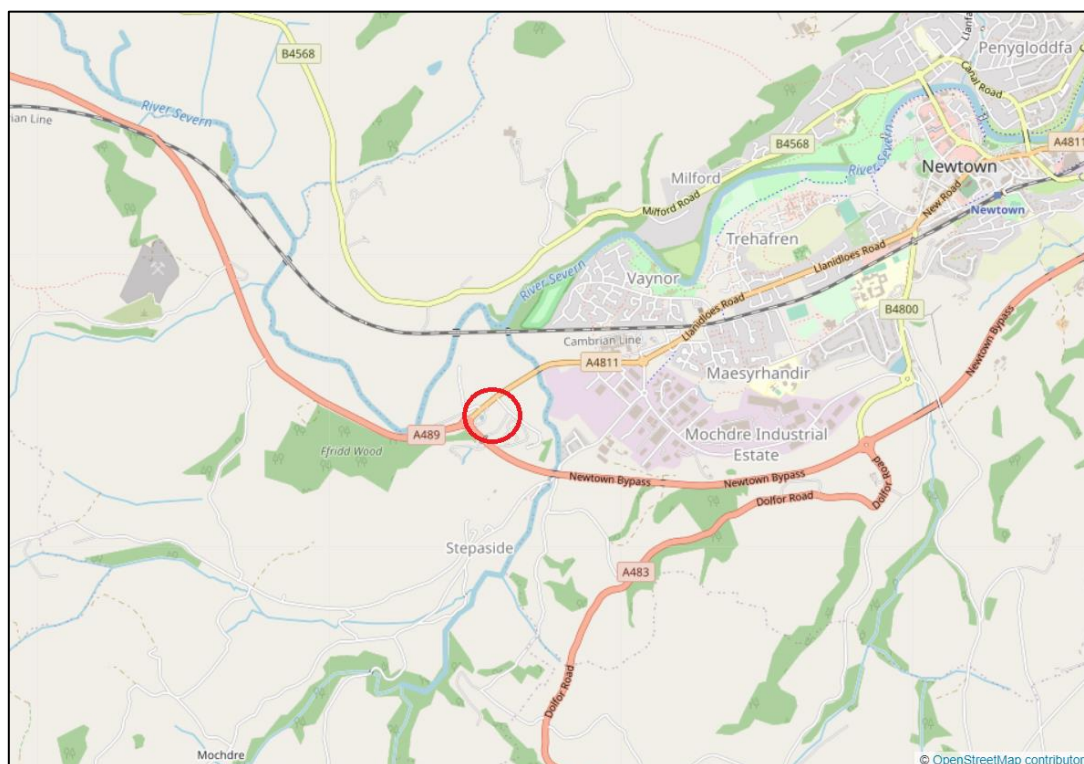
1.1 Purpose of Report

This Preliminary Ecological Appraisal (PEA) has been completed in connection with the proposed commercial development at Land Adjacent to Newtown Bypass, Llanidloes Road, Newtown, Powys (OS Grid Location SO 08481 90205). The location of the proposed development site is shown in *Figure 1* and the proposed development plans are fully detailed in *Section 4*.

The site survey was carried out on 5th May 2021 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 on the edge of Newtown adjacent to the Newtown Bypass Road, approximately 2 km south-west of the town centre and 780m north of Stepaside village. The proposals involve the construction of a fuel station, pub, hotel, car parking, forecourt and drive through coffee shop in a grassland field that is topped regularly. A row of newly planted trees is present along

the northern, western and eastern boundaries of the field and a newly created pond is present to the west. The pond is outside of the development area but within the ownership boundary. An embankment is present to the south-west of the site which has been fenced off and will not be affected by the proposed development works. The site is bordered by roads with the Newtown Bypass located along the western edge of the site, Llanidloes Road located along the northern site boundary and a smaller access track along the eastern and southern boundaries which serves a neighbouring caravan park. The wider landscape consists of grazed pastureland interspersed with hedgerows and scattered woodlands. The River Severn is located 275m north of the site boundary with the Mochdre Brook 325m to the east and a woodland belt 85m west of the site boundary (*Figure 2*).

Figure 2. Proposed development site (red line boundary)



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) 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 buildings and 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 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 Barn Owl (*Tyto alba*), which is a 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

There were no perceived limitations to the survey. The assessment was carried out during the optimal time of year for floral species (April to September). The entirety of the site was accessible and surveyed.

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 (2016) which assesses the impacts of the proposal on ecological receptors taking in to consideration extent, duration, reversibility, timing, frequency and certainty.

Mitigation and enhancement is 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 (SSSIs) (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 EU ‘Habitats’ Directive 1992
- CIEEM Guidelines (2018) 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 (Eaton *et al.* 2015)
- Local Wildlife Site selection criteria
- National Policy Planning Framework (NPPF), 2018

- 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 (*Lutra lutra*), Fairy Shrimp (*Chirocephalus diaphanous*), Floating Water Plantain (*Luronium natans*), Globeflower (*Trollius europaeus*), Great Crested Newt (*Triturus cristatus*), Hazel Dormouse (*Muscardinus avellanarius*), High Brown Fritillary (*Fabriciana adippe*), Nightjar (*Caprimulgus europaeus*), Pearl-bordered Fritillary (*Boloria euphrosyne*), Pillwort (*Pilularia globulifera*), Pipistrelle Bat (*Pipistrellus pipistrellus* & *P. pygmaeus*), Red Kite (*Milvus milvus*), 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 (*Arvicola amphibius*), 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 three statutory designated sites within 2 km of the proposed development site.

Penstrowed Pastures is a Site of Special Scientific Interest (SSSI) located approximately 1.6 km west of the site boundary. Penstrowed Pastures consists of two discrete steeply sloping fields on either side of a dingle. Their aspects are predominantly north-facing and south-facing respectively. Much of the site is poorly drained, with wet flushes occurring particularly in the north-facing field, but steep banks provide drier habitat in places. The site is used as rough pasture for cattle. The plant communities represented here differ according to variations in drainage and in the base-status of the soil. They vary from the more acid types of swards, typified by Tormentil/Mat-grass (*Potentilla erecta/Nardus stricta*) with Eyebright (*Euphrasia officinalis*) or Devil's-bit Scabious (*Succisa pratensis*), to more neutral components typified by zones dominated by Common Knapweed (*Centaurea nigra*) in which both Primrose (*Primula vulgaris*) and Cowslip (*Primula veris*) are well represented. Rush-dominated flushes with tall herbs and sedges add further diversity. Orchid species recorded from the site include the uncommon Lesser Butterfly-orchid (*Platanthera bifolia*). Butterfly species recorded from the site include the Small Skipper (*Thymelicus sylvestris*) and Common Blue (*Polyommatus icarus*).

Penstrowed Quarry is a SSSI located approximately 1.7 km north-west of the site boundary and is designated for its notable geological features. The site is outstanding for the sedimentary structure it displays, particularly bottom structures such as flute and load casts, groove, prod and skip marks. Excellent examples of the Bouma sequence of turbidity current structures may be seen. The section here contrasts with the shallow marine, shelf carbonates and shales of the Welsh Borderland to the east. This is a superb example of deepwater, graptolitic sediments is essential to our understanding of the palaeogeography and facies of the Wenlock in Wales and the Borders.

Mochdre Dingles SSSI is located approximately 1.3 km south of the site boundary and is an outstanding example of mixed deciduous woodland in Montgomery. Vegetation types range from typical Sessile Oakwood to a more base-rich type in which Oak (*Quercus spp.*) and Ash (*Fraxinus excelsior*) are dominant and in which a variety of other tree species occurs, including Wych Elm (*Ulmus glabra*) and Field Maple (*Acer campestre*). Hazel (*Corylus avellana*) often forms a well-developed shrub-layer in this latter type. A greater diversity of flowering plant species has been recorded in this site than in any other woodland in Montgomery. The site is also of high ornithological interest. The variety in canopy and shrub species, together with variations in tree density and understorey development, contributes to habitat diversity which renders the woods attractive to many species of woodland birds.

3.2 Ecological Surveys

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

- Grassland
- Tall ruderals
- Embankment
- Planted trees
- Pond

Figure 3. Aerial image of site (red line = development area)



The site or immediately adjacent areas contain habitat suitable for the protected species listed below.

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

3.3 Phase 1 Habitat Survey

3.3.1 Grassland

The proposed development site is dominated by short-sward semi-improved grassland, which is regularly mown/topped (*Plate 1*). Species present within the grassland comprise a mix of common grasses including Perennial Ryegrass (*Lolium perenne*), Annual Meadow-grass (*Poa annua*), Red Fescue (*Festuca rubra*) and Yorkshire Fog (*Holcus lanatus*), whilst herb species include Meadow Buttercup (*Ranunculus acris*), Common Nettle (*Urtica dioica*), Creeping Thistle (*Cirsium arvense*), Broad-leaved Dock (*Rumex obtusifolius*), Common Whitlow Grass (*Erophila verna*), Dandelion (*Taraxacum spp.*), Hairy Bittercress (*Cardamine hirsuta*), Common Cowslip (*Primula veris*), Common Sorrel (*Rumex acetosa*), Ragwort (*Jacobaea vulgaris*) and Yarrow (*Achillea millefolium*).

Plate 1. Improved grassland dominates the site (looking south from the centre of the site)



3.3.2 Tall Ruderals

Along the southern (*Plate 2*) and western boundaries of the site are areas of recently mown tall ruderals. This habitat is present along the edge of the fence line and continues beyond the site boundary up to the edge of the adjacent Newtown Bypass Road. Although the areas of tall ruderals have been recently mown evidence of a number of woody species could still be seen. Floral species present included: Broad-leaved Dock, Sorrel, Common Nettle, Sycamore saplings (*Acer pseudoplatanus*), Common Whitlow Grass, Yorkshire Fog, Perennial Ryegrass, Rosebay Willowherb (*Chamaenerion angustifolium*), Greater Willowherb (*Epilobium hirsutum*), Yarrow, Compact Rush (*Juncus conglomeratus*), Spear Thistle (*Cirsium vulgare*) and Milk Thistle (*Sonchus arvensis*).

Plate 2: Recently mown tall ruderals present along the southern edge of the site



3.3.3 Embankment

An embankment is present to the south of the site which is within the ownership boundary but outside of the development area. This embankment slopes down from the bridge to the site and is vegetated over. The embankment has been recently fenced off, preventing livestock from grazing the area so the vegetation present is diverse and consists of a number of recently established tall ruderals and self-seeded saplings. Species present on the embankment include Yorkshire Fog, Broad-leaved Dock, Dandelion, Rosebay Willowherb and a number of recently planted saplings in guards which comprised of Beech (*Fagus sylvatica*), Hawthorn (*Crataegus monogyna*), fruit trees (*Prunus spp*), Rowan (*Sorbus aucuparia*), Silver Birch (*Betula pendula*) and Alder (*Alnus glutinosa*).

Plate 3: Embankment located along the southern edge of the site (outside the development area)



3.3.4 Planted Trees

A number of trees have been planted in guards along the northern, southern and western boundaries (*Plates 4 and 5*) of the site and along the track leading to the pond. These trees have been planted recently (within the last 2-5 years) and have yet to fully establish. Species present include: Hawthorn, Alder, Beech, Silver Birch, Downy Birch (*Betula pubescens*), Blackthorn (*Prunus spinosa*), Spindle (*Euonymus europaeus*), Sycamore, Field Maple (*Acer campestre*) and Rowan.

Plate 4. Recently planted trees along the western and southern boundaries



Plate 5. Planted trees along the northern boundary of the site



3.3.5 Pond

Within the ownership boundary but outside of the proposed development area is a single pond. This pond has been created recently and has shallow, sloped sides with a deeper centre to the pond. There is minimal pond edge vegetation and few aquatic plants have begun to establish. The pond is murky and turbid. Overflow pipes from the road drain into the pond. Floral species present around the pond edge include Goldenrod (*Solidago virgaurea*), Dandelion, Broad-leaved dock, Ribwort Plantain (*Plantago lanceolata*), Spear Thistle, Crested dogs-tail (*Cynosurus cristatus*), Sweet Vernal Grass (*Anthoxanthum odoratum*), Bramble (*Rubus fruticosus* agg.), Milk Thistle, Common Figwort (*Scrophularia nodosa*), Groundsel (*Senecio vulgaris*), Hairy Bittercress, White Clover (*Trifolium repens*), Sun Spurge (*Euphorbia helioscopia*), Birds-foot Trefoil (*Lotus corniculatus*) and Bush Vetch (*Vicia sepium*) are also present. Within the pond floral species included Iris, Bullrush (*Typha angustifolia*) and Horsetail (*Equisetum hyemale*). Patches of Water Lily (*Nymphaea* spp.), a garden escapee variety, have also established within the pond.

Plate 6. Pond located to the west of the site, outside of the development area boundary



3.4 Protected Fauna

3.4.1 Badger

No evidence of Badger was recorded on or adjacent to the proposed development site. Evidence of rabbit activity was noted along the embankment to the south of the site and around the edge of the pond.

The grassland, newly planted trees and recently cut tall ruderal area within the development site boundary offer limited opportunities for Badger and are not suitable locations for setts to be dug. The embankment offers some suitable sett creation areas however the embankment is fully fenced preventing Badger from accessing this area. The pond area is only partially fenced and offers suitable foraging habitat for Badgers but the waterlogged nature of the ground make the area unsuitable for sett creation.

3.4.2 Bats

There is no suitable habitat for roosting bats within the proposed development footprint. The pond to the west offers suitable foraging habitats for bat species and the grassland within the development area also offers some (limited) foraging areas for bats. The newly planted trees are young specimens which are still establishing so they offer limited foraging habitat for bats and do not offer any suitable roosting areas, although as a linear feature they could be commuted along. Although the grassland and pond on site offer some foraging areas for bats these habitats are unlikely to be of any importance for foraging and the Newtown bypass located along the southern boundary of the site fragments the development area from nearby suitable foraging habitats.

3.4.3 Dormouse

There are no apparent records of Dormouse within 2 km of the proposed development site and the grassland affected by the proposals is unsuitable for this species. There are no hedgerows or tree lines on or adjacent to the development site that could provide cover or suitable foodplants for Dormouse. Due to the lack of records of Dormice locally, lack of suitable Dormouse habitat on site or adjacent to site and the presence of the Newtown bypass to the south fragmenting the development area from nearby woodland areas it is considered unlikely for Dormice to be present on site and as such this species will not be considered further within this report.

3.4.4 Birds

No evidence of nesting birds was noted on site. The grassland on site has a short sward length and is cut regularly to maintain the short sward length so it is unlikely to support ground-nesting birds. The newly planted trees offer limited cover for bird species and do not offer suitable nesting habitat.

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 Barn Owl however it is unlikely that Barn Owl rely on the area for hunting due to the size of the site and high levels of noise and light disturbance within the vicinity from the roads and adjacent caravan/campsite.

3.4.5 Great Crested Newt

There are no records of Great Crested Newt within 2 km of the proposed development site. One pond is present within 250m of the proposed development site and this is located within the ownership boundary, to the west of the development area. This pond was assessed as having a HSI score of 0.33 confirming *Poor* suitability for Great Crested Newts (*Table 1*).

Table 1. Habitat Suitability Index (HSI) of pool on site

Suitability Index (SI) Factor	Category	Score
SI1	Location	0.01
SI2	Pond Area	0.8
SI3	Pond Drying	1
SI4	Water Quality	0.33
SI5	Shade	1
SI6	Fowl	0.67
SI7	Fish	1
SI8	Ponds	0.1
SI9	Terrestrial Habitat	0.33
SI10	Macrophytes	0.3
HSI Index Value		0.33
HSI		Poor

The short sward improved grassland is not suitable for hibernating or foraging Great Crested Newt due to the lack of cover but could be crossed during dispersal. The newly planted trees are of limited suitability for hibernating amphibians as the root zones are still establishing. The ground around the pond is patchy, sparse and mostly bare earth. This limits potential hibernation areas around the pond for amphibians. Due to the lack of suitable hibernating areas around the pond and limited aquatic vegetation within the pond it is unlikely Great Crested Newts will be present within the pond and surrounding areas, including the proposed development site, however some amphibians may be present.

3.4.6 Reptiles

There are no apparent records of common reptile species within 2 km of the proposed development site.

The short sward improved grassland is not suitable for hibernating or foraging reptiles due to the lack of cover but could be crossed during dispersal. There are no suitable foraging or hibernation areas on site. The pond present to the west may offer some limited foraging areas for reptiles and the bare ground around the pond could offer some potential basking opportunities however the site is fragmented by roads from any suitable reptile habitat locally.

4 EVALUATION

4.1 Summary of Proposals

The proposals include the construction of a fuel filling station, pub, hotel, drive through coffee stop, parking and a large forecourt (*Figure 4*). Access will be via the existing gateway and the pond and embankment areas will be retained post-development. Tree planting and landscaping is also proposed within the development plans.

Figure 4. Proposed development plan



The Powys BAP lists 17 Habitat Action Plans, none of these listed habitats will be directly affected by the proposed development.

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 three statutory designated sites within 2 km of the proposed development site.

Penstrowed Pastures SSSI is located approximately 1.6 km west of the site boundary and is designated for its diverse floral species including the uncommon Lesser Butterfly-orchid. Butterfly species recorded from the site include the Small Skipper and Common Blue. Penstrowed Quarry is a SSSI located approximately 1.7 km north-west of the site boundary and is designated for its notable geological features. The development is unlikely to have any impacts on the habitats and species associated with the Penstrowed Pastures or Penstrowed Quarry SSSI designated sites as the proposed development is small-scale and on an area of land with limited ecological connectivity. Therefore, no specific mitigation measures are considered necessary in relation to these designated sites.

Mochdre Dingles SSSI is located approximately 1.3 km south of the site boundary and is a mixed deciduous woodland in Montgomery. A greater diversity of flowering plant species has been recorded in this site than in any other woodland in Montgomery. The site is also of high ornithological interest. Given that the proposals will affect short sward semi-improved grassland habitat only the development is unlikely to have any impacts on the habitats and species associated with this designated site. Therefore, no specific mitigation measures are considered necessary in relation to this designated site.

4.3 Habitats

4.3.1 General

The development area for the fuel filling station, hotel, pub, coffee stop, parking and forecourt will directly affect an area of semi-improved grassland which is a habitat of low ecological interest. The development may also have an indirect impact on the adjacent pond located to the west of the site.

4.3.2 Mitigation

The construction works will affect semi-improved grassland which is of low ecological value and the loss of this area of grassland is unlikely to have a significant negative impact. Specific mitigation measures for this loss are not considered necessary, however, the proposals do include ecological enhancement measures that involve the planting of shrubs and trees within the forecourt and parking areas of the proposed development which will improve ecological connectivity and biodiversity on site and connect to the pond and embankment areas.

Hedgerow & Tree Planting

Additional tree and shrub planting should comprise native locally occurring species such as Hawthorn, Field Maple, Rowan, Beech, Blackthorn, Holly, Silver Birch, Crab Apple (*Malus sylvestris*) 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, newly planted trees located along the northern, western and southern boundaries of the site. 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 (5th edition:1986).

Water Treatment & Drainage

Measures are to be put in place to ensure there are no significant negative impacts on the pond located to the west of the development area. The pond will not be affected or altered by the proposed development however spills and surface run-off during the construction works are a risk and need to be considered.

The proposed drainage and dirty water treatment methods will need to ensure that there are no impacts on the hydrology and ecology of the pond and that no dirty water will enter the pond. Water treatment and discharge methods will be fully detailed in the planning application but should include the following:

- Silt/run-off fencing will be erected along the eastern edge of the pond to prevent surface run-off and sediment entering the pond from the development works. This fencing is to be installed prior to construction works commencing.
- Spill kits will be stored within the site compound during and post construction and all spills will be cleaned up accordingly and if necessary reported;
- All chemical substances and hazardous materials will be stored in accordance EA guidelines and all diesel fuel and other lubricants will be stored in appropriate containers and within double bunded storage areas;
- Any washing of concreting vehicles will be done well away from the pond and/or drainage systems; and
- Any re-fuelling and re-lubrication will only be completed in an approved area in which a spill kit is available.

The proposed drainage methods and mitigation measures will ensure there will no significant negative impacts on the pond located to the west of the site and the species the pond may support.

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.

The lack of evidence of Badger on site suggests the potential for setts to be dug prior to works is unlikely. Due to the relatively small size of suitable foraging habitat affected it is also considered 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

No suitable roosting habitat is located within the field boundaries and the semi-improved grassland provides limited foraging opportunities for bat species locally.

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 (2018). The lighting plan will include directing lighting away from the retained newly planted boundary trees and adjacent pond and away from any new roosting provision. Where necessary downlighting will be used to ensure that suitable roosting features and foraging and commuting habitats remain unlit.

The proposed tree and shrub planting within the development footprint will maintain and ultimately enhance the site's suitability for foraging and commuting bats.

4.4.3 Nesting Birds

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 proposed construction of the fuel filling station, hotel, public house, coffee stop, parking and forecourt will result in the loss of semi-improved grassland which is of low ecological value and of very limited suitability for nesting birds. The loss of this habitat is unlikely to have a negative impact on bird

breeding areas locally. Any habitat creation, enhancement and management, such as the planting of trees shrubs, would only have a positive impact on nesting birds at the site. Two hole-fronted nest boxes will be erected on the new buildings on site to provide additional nesting opportunities for local bird species. Suggested locations for these boxes can be seen in *Figure 5* below.

Figure 5. Proposed bird box locations (red stars)



4.4.4 Great Crested Newt

The pond adjacent to the development site is of *Poor* suitability for Great Crested Newt. This pond is located within the ownership boundary but outside of the development area so will not be directly impacted by the proposed works. There are no other ponds located within 250m of this small-scale development. The habitat on and adjacent to site are of limited suitability for Great Crested Newts with no suitable hibernation areas present near to the pond. The Newtown Bypass to the south and the road along the western site boundary create barriers to newt movement and fragment the site from any suitable newt habitats locally.

Taking into consideration the absence of suitable breeding ponds within 250m of site, the poor suitability of the pond within the ownership boundary, the lack of newt records within 2 km of the site and the area of habitats affected by the proposals it is considered very unlikely that the proposed development will affect this species.

4.4.5 Reptiles

Due to the limited extent and low suitability of the habitats affected by the proposals, the presence of reptiles in areas affected by the proposals is considered unlikely however the following precautionary measures should be adhered to pre and during works:

- 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 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 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*. This species is also listed 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.