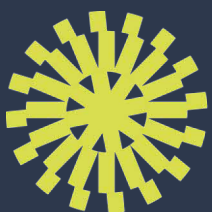


# Ecological Assessment



**Tyler  
Grange**

**The Wild Hare  
27th March 2024**

TG Report No. 15104\_R03\_VKC

Report No:	Date	Revision	Author	Checked	Approved
15104_R03	27th March 2024	-			

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## Summary

S.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Tintern Propco Limited. It sets out the findings of an 'extended' phase I habitat survey, Preliminary Roost Assessment (PRA), Ground-level Tree Assessment (GLTA), bat emergence/re-entry surveys and Modular River Physical (Ground) survey on land at The Wild Hare, Tintern, NP16 6SF, hereafter referred to as 'the site'.

S.2. An 'extended' phase I modular River was undertaken in September 2022 and an updated site walkover undertaken in March 2024. A summary of the results is as follows:

The site comprises six buildings, artificial unsealed unvegetated surfaces, hardstanding, introduced shrub, amenity grassland, hedges, tall ruderal vegetation, scattered scrub, results is as follows: A summary of the a river;

Several habitats are present on site which could support nesting birds, namely the introduced shrub, hedges, scrub and trees;

The river corridor and associated habitats along its edge, as well as an area of ruderal vegetation in the southwest corner of the site, could support a very low population of common reptiles; and

The site has potential to support a small number of hedgehogs, badger and otter (although no setts or holts were recorded).

S.3. The desk study identified three European statutory designated sites within 10 km of the site boundary and four national statutory designated sites within 2 km. It is the responsibility of the local authority to follow the Habitats Regulations Assessment (HRA) process to determine potential for likely significant effects on the River Wye SAC, Wye Valley Woodlands SAC and Wye Valley and Forest of Dean Bat Sites SAC. Information to inform and support the council's HRA will be submitted in the form of an HRA screening document as an addendum to this report. Nevertheless, the drainage strategy statement confirms that the surface water run-off characteristics of the are unchanged hence no additional runoff is and with the implementation local authority to follow the Habitats Regulations Assessment (HRA) process to determine construction, the proposed planting of native vegetation, management through a Habitat Management and Monitoring Plan (HMMP) and implementation of a suitable lighting strategy it is considered the risk of likely significant effects on the qualifying features of these internationally important sites would be avoided.

S.4. Habitats of local ecological importance within the site, namely the river with the implementation within the site, are to be retained as part of the proposals, Site enhancements will be delivered through native tree and hedgerow planting as well as planting of native and ornamental shrubs (as detailed in **Section 3**), in line with the Welsh government's net benefit for biodiversity (NBB) approach and Policy S13 of the Monmouthshire Local Plan. Losses of introduced shrub, modified grassland and areas of ruderal vegetation, of negligible ecological importance, will not trigger planning policy. Three bird and two bat boxes are to be installed within the proposed development to ensure conformity with national and local planning policy,

S.3. Given the potential risk of triggering legislation afforded to protected fauna, precautions will need to be taken during site clearance and once the proposals are operational, This would include:



Clearance of woody vegetation outside the nesting bird season (March to August inclusive) or otherwise under supervision of an Ecological Clerk of Works (ECoW);

Preliminary checks and fingertip searches by a dormouse licenced ECoW and precautionary methods of working during vegetation clearance and prior to construction in the areas closest to the river where vegetation is to be removed to avoid impacts to dormouse, reptiles, hedgehogs, badgers and otters/water vole (see Section 3 of this report);

S.6. Mitigation and enhancement requirements throughout this report can be actioned through the production of a Construction Environmental Management Plan (CEMP) and a Habitat Management and Monitoring Plan (HMMP). These can be secured through suitably worded planning conditions.

M It is considered that with the implementation of the mitigation and enhancement strategy described, the proposed development of the site will accord with relevant legislation and planning policy, as set out in **Appendix 1**.



# Section 1: Introduction and Site Context

- 1.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Tintern Propco Limited. It sets out the findings of a desk study, an 'extended' phase I habitat survey, Preliminary Roost Assessment (PRA), Ground-level Tree Assessment (GLTA), bat emergence/re-entry surveys and p Modular River Physical (MoRPh) survey for The Wild Hare, a public house with accommodation located in the village of Tintern, Monmouthshire NP16 6SF (Ordnance Survey Grid Reference SO 52960 00147), hereafter referred to as 'the site'. See **Figure 1.1** below for the indicative site boundary.



**Figure 1.1: Indicative site boundary shown by a red line**

- 1.2. The pub and rooms comprise six buildings surrounded by artificial unsealed unvegetated surfaces and hardstanding used for car parking and outdoor dining. To the north is the associated pub garden including lawns, hedges, scrub and scattered trees, with a section of the Anghidi River, a tributary of the River Wye, at the northern edge. The site is within the village of Tintern and is bordered by residences to the south and east. The wider landscape surrounding the site within the rural village of Tintern associated woodland and agricultural fields in the Wye Valley.
- 1.2. The proposals comprise the construction of an outdoor seating area and tent structure, as well as the construction of a mushroom house, lockable cycle shed, installation of LPG tanks and a wash-down area for dogs. The proposals also include the creation of a new café garden area and play area with associated soft landscaping across the site and re-development of car parking.

## Purpose

- 1.4. within the

Uses available background data and results of the field surveys to describe and evaluate the ecological features present within the likely "Zone of Influence"<sup>1</sup> of the proposed development;

<sup>1</sup> Defined as the area over which ecological features may be subject to significant effects as a result of activities associated with a project.



Describes the actual or potential ecological issues and opportunities that might arise as a result of the site's development; and

Where appropriate, makes commitments to mitigation measures for adverse effects on  
Uses available background data and results of the field surveys to describe and evaluate the legislation listed in **Appendix 1**.

- 1.5. This assessment and the terminology used are consistent with the Guidelines for Preliminary Ecological Appraisal<sup>2</sup> and the Guidelines for Ecological Impact Assessment<sup>2</sup> and complies with the British Standard for Biodiversity<sup>4</sup>.

## Methodology

- 1.6. Full methods for the data search, 'extended' phase I habitat survey, PRA, GLTA, bat emergence surveys and MoRPh survey are described in **Appendix 2** of this report. It should be noted that while the proposals do not include impacts to the buildings associated with the public house, the results of surveys of these for protected species have been included in this report to provide context to the assessment of impacts to the external areas within the site.

## Quality Control

- 1.7. All ecologists at Tyler Grange Group Ltd are members or qualifying members of the Chartered Institute of Ecology and Environmental Management (CIEEM) and abide by the Institute's Code of Professional Conduct<sup>5</sup>.

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<sup>2</sup> CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

<sup>2</sup> CIEEM (2019) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester

<sup>4</sup> BSI Standards Publication (2013) Biodiversity – Codes of Practice for Planning and Development

<sup>5</sup> CIEEM (2022) Code of professional conduct [Online] Available at: <https://cieem.net/wp-content/uploads/2019/02/Code-of-Professional-Conduct-FEB-2022.pdf>



## Section 2: Ecological Features and Evaluation

### Designated Sites

- 1.6. The data search was based on records purchased from South East Wales Biodiversity Records Centre (SEWBRc) as well as data from Multi-Agency Geographic Information for the Countryside mapping (MAGIC<sup>6</sup>). See **Appendix 2** for full methodology.

### Statutorily Designated Sites

- 2.2. The desk study returned three European designated sites (encompassing Special Areas of Conservation (SAC), Special Protection Areas (SPA) or Ramsar sites) within 10 km of the site boundary and four national designated sites (encompassing Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), or Local Nature Reserves (SPA)) within 2 km. These sites are summarised in **Table 2.1** below.

**Table 2.1: Statutory designated sites within the study area**

Site and designation	Description	Ecological importance
<b>River Wye/ Afon Gwy SAC</b>	Approximately 0.1 km northeast of the site boundary, designated for its water course and catchment of montane to plain levels with characteristic bryophyte-dominated vegetation in the upper course and extensive <b>River Wye/</b> beds in the lower course, including stream water-crowfoot <i>R. penicillatus</i> ssp. <i>Pseudofluitans</i> and the uncommon river water-crowfoot <i>R. fluitans</i> . Fauna found within the river system include the white-clawed crayfish <i>Austropotamobius pallipes</i> , river lamprey <i>Lampetra fluviatilis</i> , Atlantic salmon <i>Salmo salar</i> and otter <i>Lutra lutra</i> .	International
<b>Wye Valley Woodlands/ River Wye/ Dyffryn Gwy SAC</b>	Approximately 1 km south of the site, designated for its <i>Asperulo-Fagetum</i> beech forests. Structurally, the woods include old coppice, pollards and high forest types and in some parts, lime <i>Tilia</i> sp., elm <i>Ulmus</i> sp. and oak <i>Quercus</i> sp. are dominant alongside beech <i>Fagus sylvatica</i> . The presence of lesser horseshoe bat <i>Rhinolophus hipposideros</i> is a qualifying feature, although not a primary selection reason for the site's designation as an SAC.	International
<b>Wye Valley and Forest of Dean Bat Sites/ Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena SAC</b>	Approximately 2.2 km northeast of the site, designated for its lesser horseshoe bat population, <i>pallipes</i> about 26% of the UK's lesser horseshoe population and including maternity roosts. It is also designated for its greater horseshoe (GHS) bat <i>Rhinolophus</i> population, approximately 6% of the UK's population. The site is within a core sustenance zone of the SAC for GHS.	International
<b>River Wye (lower wye)/ Afon Gwy (gwyr isaf) SSSI</b>	Approximately 0.1 km northeast of the site, designated for its large western eutrophic river, of interest for three main aquatic plant community types: rivers on sandstone, mudstone and hard limestone; clay rivers; and lowland rivers with minimal gradient. It is also designated for its rich invertebrate fauna, characteristic of a	National

<sup>6</sup> DEFRA (2023) Multi-Agency Geographic Information for the Countryside mapping [Online] Available at: <https://magic.defra.gov.uk/MagicMap.aspx> [Accessed: 20/20/2022].





Site and designation	Description	Ecological importance
	large lowland river and of special interest for species associated with riffles, river shingles, salt marsh, river deadwood and bankside vegetation.	
<b>Barbadoes Hill Meadows SSSI</b>	Approximately 0.6 km north of the site, designated for its species-rich neutral grassland, characterised by a high herb cover, including bird's foot trefoil <i>Lotus corniculatus</i> , common knapweed <i>Centaurea nigra</i> , rough hawkbit <i>Leontodon hispidus</i> and eyebright <i>Euphrasia</i> sp. Grasses include red fescue <i>Festuca rubra</i> , sweet vernal-grass <i>Anthoxanthum odoratum</i> and common bent grass <i>Agrostis capillaris</i> and a particularly noticeable feature of the meadows is the widespread abundance of devil's-bit scabious <i>Succisa pratensis</i> .	National
<b>Blackliff-Wyndcliff SSSI</b>	Approximately 1 km south of the site, designated for its extensive area of partially vegetated Carboniferous Limestone cliffs and native <i>Succisa pra</i> . The ancient <b>SSSI</b> -natural high forest and old coppice with standards contain important examples of calcareous woodland large (including relict beech <i>Fagus sylvatica</i> coppice and small-leaved lime bit scabious beech) with many rare or local plants in the ground flora. The subordinate tree and shrub species include a number of hybrids of <i>Sorbus</i> including <i>Sorbus aria</i> x <i>Sorbus aucuparia</i> .	National
<b>Sylvan House Barn SSSI</b>	Approximately 2.2 km northeast of the site, Sylvan House Barn is a component of the Wye Valley and Forest of Dean Bat Sites SAC and is designated for its nationally significant breeding population of lesser horseshoe (supports one fifth of the known Gloucestershire breeding population).	National

- 2.3. The site lies within the Impact Risk Zone (IRZ) for the River Wye SSSI, which lies 0.1 km northeast of the site. The IRZ states that 'the local planning authority should consult Natural England on the likelihood of any discharge of water or liquid waste. including to mains sewer..

## Non-statutorily Designated Sites

- 2.4. Twenty-eight Sites of Importance for Nature Conservation (SINC) were returned by the desk study within 2 km of the site boundary, which are summarised in **Table 2.2** below. Descriptions were not provided by the LERC for all of the sites.

**Table 2.2: SINC within 2 km of the site boundary**

Site name	Location	Ecological importance
Buckle Wood & Glyn Wood	Approximately 0.6 km west of the site boundary.	County
Meadow at Wood & Farm	Approximately 0.6 km west of the site.	County



Site name	Location	Ecological importance
Barbadoes Hill	Approximately 0.7 Hill northwest of the site.	County
Lower Hale Wood	Approximately 0.7 Hill north of the site.	County
Tintern of the s	Approximately 0.7 Hill northeast of the site, designated for its marshy grassland with species including creeping yellow-cress <i>Rorippa sylvestris</i> and meadowsweet <i>Filipendula ulmaria</i> .	County
Trelleck Road	Approximately 0.7 Hill north of the site.	County
Barbadoes Green Wood	Approximately 0.8 km northwest of the site.	County
Hale End Cottage	Approximately 0.8 km west of the site.	County
Hill Cottage, Tintern	Approximately 0.8 km north of the site.	County
Brook Barn	Approximately 1 km north of the site, designated for its species-rich neutral grassland surrounded by woodland. Nine neutral grassland indicator species are present, including bird's foot trefoil <i>Lotus corniculatus</i> , field wood rush <i>Lotus corniculatus</i> , common dog violet <i>Viola riviniana</i> .	County
Coed Beddick South of Track	Approximately 1 km north of the site.	County
Lover's Leap	Approximately 1.1 km south of the site.	County
Coed Beddick Southeast	Approximately 1.1 km north of the site.	County
North of Tintern Allotment	Approximately 1.2 km northwest of the site.	County
Part of Upper Hale Wood	Approximately 1.2 km northwest of the site.	County
Part of Sychbant Wood	Approximately 1.6 km southwest of the site.	County
Penterry Fields	Approximately 1.6 km southwest of the site.	County
Penterry Tintern	Approximately 1.6 km southwest of the site.	County
Allotment Farm	Approximately 1.7 km northwest of the site.	County



Site name	Location	Ecological importance
Hazelgrove	Approximately 1.8 km north of the site.	County
Ravensnest Wood Southern Strip	Approximately 1.8 km southwest of the site.	County
Craig Farm	Approximately 1.9 km north of the site.	County
Primrose Cottage	Approximately 1.9 km north of the site, designated for its of the site Ravensnest , characteristic of unimproved grassland, such as knapweed <i>Centaurea nigra</i> and common sorrel <i>Rumex acetosa</i> . Above the grassland is a mix of dry ash/beech woodland and wet alder <i>Alnus</i> sp. woodland.	County
Whitelye Common	Approximately 1.9 km northwest of the site.	County
Allotment House	Approximately 1.9 km northwest of the site.	County
Holly Tree Cottage	Approximately 1.9 km north of the site.	County
Kit's Wood	Approximately 2 km northwest of the site.	County
The Hermitage Fields	Approximately 2 km northwest of the site.	County

## Habitats

- 2.5. The habitats recorded present across the site during the phase I habitat survey are summarised below, along with a description of the composition of the main plant species present and an assessment of their ecological importance. The locations of the habitats are shown on the Habitats Features Plan with Target Notes (TN) (ref: **15104/P01a**), appended at the end of this report.

### Amenity Grassland

- 2.5. The majority of the site comprises amenity ('modified') grassland (as shown in **Photograph** ref) of a short sward, regularly managed by mowing, with the dominant species being perennial ryegrass *Lolium perenne* and white clover present and an and others including dandelion , appended *officinale* agg. and daisy *Bellis perennis*. This habitat is common in the wider landscape and as such is considered to be of **negligible ecological importance**:





Photograph 2.1: Amenity grassland comprising the pub garden

### Artificial Unvegetated Unsealed Surface

- 2.7. Artificial unvegetated unsealed surface habitat includes the gravel in the east of the site (**Photograph 2.2**). This habitat type has no inherent ecological value and as such is considered to be of **negligible ecological importance**.



Photograph 2.2: Gravel surface

### Buildings

- 2.8. Six buildings (B1 – B6) were identified within the site boundary, as shown in **Table 2.4** in the Bats Results Section and on the Habitat Features Plan (**15104/P01a**), which is appended at the end of this report. Buildings have no inherent ecological value and as such are considered to be of **negligible ecological importance**. Buildings can have the potential to support bats and birds, which is discussed in the Fauna section below.

### Ditch

- 2.9. A dry ditch runs along the western boundary of the site (shown in **Photograph 2.3**) and is associated with dense ruderal vegetation, clematis *Clematis* sp. cover and bramble *Rubus fruticosus* scrub. The ditch, which is dry and overgrown, does not have inherent ecological value and is therefore considered to be of **negligible ecological importance**.





Photograph 2.3: Dry ditch along western site boundary

## Hardstanding

- 2.10. Areas of hardstanding throughout the site, such as the carpark shown in **Photograph 2.4**, provide no inherent ecological value and therefore this habitat type is of **negligible ecological importance**.



Photograph 2.4: Hardstanding within the site

## Introduced Shrub

- 2.11. As this habitat type is common within the wider landscape and includes non-native species, such as rock cotoneaster *Cotoneaster horizontalis* and Japanese anemone *Anemone hupehensis*, introduced shrub present throughout the site (shown in **Photograph 2.5**) is considered to be of **negligible ecological importance**.





Photograph 2.5: Area of introduced shrub in pub garden

## Native Hedge

- 2.12. There is a beech *Fagus sylvatica* hedge in the northeast of the site (shown in **Photograph 2.6**). Upon reviewing aerial photography this habitat (native hedgerow) is considered likely to be common within the wider landscape and given it is a single species will support limited diversity; however, as a native hedgerow, it meets the definition of Habitats of Principle Importance (HoPI), under Section 7 of the Environment (Wales) Act 2016<sup>7</sup> and offers cover and forage within the site so is considered to be of **local ecological importance**.



Photograph 2.6: Beech hedge in the northeast of the site

## Ornamental Non-native Hedges

- 2.13. In the southwest corner of the site there is a cypress *Cupressus* sp. hedge and a *Forsythia* hedge, both of which appear to be regularly maintained (**Photograph 2.7**). This habitat type is very common in the wider landscape and had limited and non-native species diversity and therefore does not meet the HoPI definition. As such this habitat is considered to be **of negligible ecological importance**.

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<sup>7</sup> Hedgerows are included in the Environment (Wales) Act (2016) Section 7 list of habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales





Photo 2.7: Ornamental non-native hedge

## Running Water

- 2.14. The Anghidi River a tributary of the River Wye, runs through the northern end of the site (**Photograph 2.8**). The section of the river within the site boundary is approximately 5 m wide and fast-flowing with sandy and stoney substrate. The river's banks are covered with ivy, nettle and hedge bindweed *Calystegia sepium*. The site falls within the 8-10 m riparian zone of the River Anghidi. The MoRPh survey assessed the river as having a condition of 'moderate' with an index score of 0.7327935.
- 2.15. As the River Anghidi is within 2.5 km of its source it would qualify under the UK Biodiversity Action Plan Priority habitat description of a Headwater making it an HoPI<sup>8</sup>. The Anghidi River has inherent ecological value as it provides habitat opportunities for flora and fauna and is a HoPI, therefore is considered to be of **at least district ecological importance** and could be up to **county ecological importance**.



Photograph 2.8: River running along the northern boundary of the site

## Scattered Trees

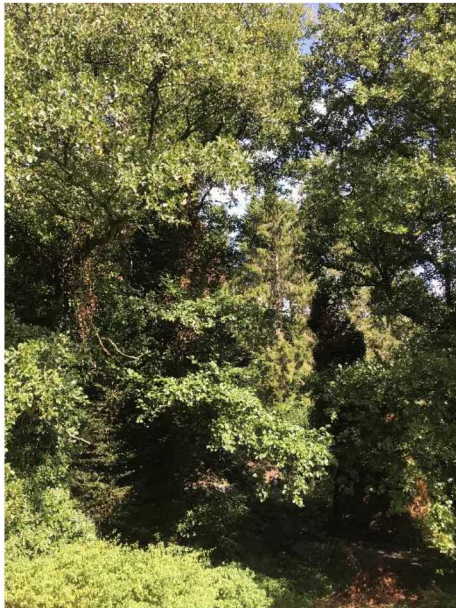
- 2.16. There are several scattered mature and semi-mature trees throughout the site (**Photograph 2.9**), including alder *Alnus glutinosa*, holly *Ilex aquifolium* and willow *Salix* sp.. These trees have inherent

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<sup>8</sup> <https://data.jncc.gov.uk/data/01d6ab5b-6805-4c4c-8d84-16bfebe95d31/UKBAP-BAPHabitats-45-Rivers-2011.pdf>



ecological value, as they provide habitat opportunities for flora and fauna and are not replaceable in the short to medium term, hence are of **local ecological importance**.



**Photograph 2.9: Scattered trees within the site**

### **Tall Ruderal Vegetation**

- 2.17. A patch of tall ruderal vegetation is present in the southwest corner of the site (see **Photograph 2.10**) and included white dead nettle *Lamium album*, common nettle *Urtica dioica*, burdock *Arctium* sp., creeping thistle *Cirsium arvense*, red campion *Silene dioica* and hemp-agrimony *Eupatorium cannabinum* with encroaching saplings of elder *Sambucus nigra*. This habitat type is common within the wider landscape and as such is of **negligible ecological importance**.



**Photograph 2.10: Tall ruderal vegetation**

### **Invasive Flora**

- 2.18. Invasive non-native species found on the site during the 'extended' phase I habitat survey include Himalayan balsam *Impatiens alandulifera* (TN1), Japanese knotweed *Fallopia japonica* (TN2) and Rhododendron *Erincaceae* sp. (TN3), which are listed on Schedule 9 of the Wildlife and Countryside Act (1981) in England and Wales, making it an offence to plant, spread or otherwise cause these species to grow in the wild. The locations of these species are indicated as Target





**graph** on the Habitat Features Plan (15104/P01a) and are also shown on the Green Infrastructure Statement (ref: TWH-JJB-XX-XX-RP-X-6000).

## Protected and Priority Fauna

- 2.19. Habitats within the site may offer opportunities for the following Fauna groups. Species which are considered likely absent from the site based on professional judgement, following consideration records, are not discussed. The potential for protected and priority **graph** to be present within the site is described below. Full methodology is detailed in **Appendix 2** of this report.

### Amphibians

- 2.20. A single record of great crested newt (GJJB) *Triturus cristatus* was returned by the desk study, recorded 1.5 km west of the site in 2010. However, there are no ponds within 500 m of the site (the most common range of GCN<sup>9</sup>) and the nearby streams and rivers are unsuitable habitat for GCN given their flow. Great crested newts are therefore considered likely to be absent from the site and **are not discussed further in this report**.

### Badger

- 2.21. The desk study returned four records of Eurasian badger *Meles meles* within 2 km of the site, the most recent of which was in 2020 and the nearest of which was recorded 0.9 km northeast of the site boundary in 2008.
- 2.22. No signs of badger were observed on site, although the habitats within the site provide good opportunity for foraging. Due to the presence of and connectivity to suitable habitat within the wider landscape, commuting badgers may also utilise the site.
- 2.22. Badgers are legally protected for welfare rather than conservation reasons, principally to protect them from persecution. They are a common and widespread species throughout the UK and would not be expected to be wholly reliant on the site if present in the local area. As such any population utilising the site would be of **negligible ecological importance**.

### Bats

- 2.24. The desk study returned 681 records of bat species within 4 km of the site in the last ten years, including the following species: would be of -opportunity *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, lesser horseshoe bat *Rhinolophus hipposideros*, greater horseshoe bat *Rhinolophus ferrumequinum*, noctule bat *Nyctalus noctula*, lesser noctule *Nyctalus leisleri*, serotine *Eptesicus serotinus*, Brandt's bat *Myotis brandti*, Daubenton's bat *Myotis daubentonii*, Natterer's bat *Myotis nattereri* and whiskered bat *Myotis mystacinus*. Pipistrelle and noctule bats are species included in the Monmouthshire Biodiversity Action Plan (BAP).
- 2.22. The closest record was a field record of a common pipistrelle, recorded approximately 0.1 km southwest of the site.

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<sup>9</sup> Cresswell, W. & Whitworth, R., 2004. An assessment of the efficiency of capture techniques and the value off different habitats for the great crested newt *Triturus cristatus*: English Nature Research Report 576 , Peterborough: English Nature



- 2.26. The data search also returned five European Protected Species (EPS) licences for bats within 4 km of the site, which are detailed in **Table 2.3** below.

**Table 2.3: EPS licences for bat species within 4 km of the site boundary**

Species	Licence number and date	Approximate distance from Site boundary	Description of licence
mate dis-pipistrelle, soprano pipistrelle, lesser horseshoe, whiskered and brown long-eared bats	2020-50775-EPS-MIT, 2021 – 2021	1.4 km north-east of the site	Licence allows the damage of both a breeding site and resting place
Common pipistrelle	EPSM2009-848, 2009 – 2011	1.8 km north of the site	Licence allows the destruction of a resting place
Lesser horseshoe bats and soprano pipistrelle	2017-28703-EPS-MIT, 2017 - 2027	3.2 km north-east of the site	Licence allows the damage and destruction of a resting place
Lesser horseshoe, brown long-eared bats and soprano pipistrelle	2015-9748-EPS-MIT, 2015 - 2020	3.6 km north of the site	Licence allows the destruction of a resting place
Lesser eared bats and common pipistrelle	2017-29727-EPS-MITstrelle- 2022	resting place the site	Licence allows the destruction of a resting place

### Day-time Bat Walkover

- 2.27. Habitats within the site are suitable for foraging and commuting bats, in particular the river corridor which was assessed as having moderate suitability for foraging and commuting bats, due to its connectivity with the wider landscape. However, the existing bright artificial lighting on the pub buildings and along the roads surrounding the site, limits the suitability of the site for light-adverse species such as horseshoe bats.
- 2.28. Nevertheless, this may be more suitable for more common species of bats such as pipistrelle species, which have been recorded foraging on insects attracted by lighting<sup>10</sup>. The wider landscape which, from view of aerial photography, comprises woodland and agricultural land associated with the Wye Valley, offers habitat of higher suitability for foraging and commuting bats, particularly rarer species, compared to the site. During the roost emergence/re-entry surveys it was noted that the bat activity in the site was low overall. Therefore on balance the site is considered to be of low suitability for foraging and commuting bats.





### Preliminary Roost Assessment

- 2.29. There are six buildings within the site. Building reference numbers are shown on the Habitat Features foragPlan 1: However six
- 2.30. Descriptions and suitability of the buildings are summarised in **Table 2.4** below.



<sup>10</sup> <https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released>



**Table 2.4: Descriptions of the six buildings within the site and their suitability for supporting roosting bats**

Building	Description and suitability for bat roosting	Photo
<p><b>B1</b></p>	<p><b>Moderate suitability</b></p> <p>Large three-storey brick building making up main pub and restaurant on ground floor with hotel accommodation rooms on other floors. Made up of three different sections with pitched slate-tiled roof. Features wooden-framed windows with two dormer windows on the eastern and one on the western elevation in the northern section of the building. Features three brick chimneys.</p>	
<p><b>B2</b></p>	<p><b>Low suitability</b></p> <p>Single-storey building making up part of the pub bar with pitched roof covered with flat asbestos roofing tiles. Mostly well-sealed.</p>	
<p><b>B3</b></p>	<p><b>Negligible suitability</b></p> <p>Single-storey brick building making up part of the pub restaurant with large wooden bi-fold doors along the northern wall. Flat roof covered with bitumen roofing felt and well-sealed. Has single-storey extension with flat roof covered in bitumen roof felt linking to B1.</p>	
<p><b>B4</b></p>	<p><b>Negligible suitability</b></p> <p>Single-storey hotel accommodation building, 1970s-90s style, constructed from brick with render and wooden cladded walls on northern elevation. Pitched roof with flat clay tiles.</p>	






<p><b>B5</b></p>	<p><b>Negligible suitability</b></p> <p>Group of five small interlinking single-storey storage outbuildings constructed from brick . Mostly flat roofs constructed from plastic boarding or asbestos. One with a pitched corrugated asbestos roof and one with a sloping corrugated asbestos roof. There is also a sloping corrugated asbestos roof creating a shelter on the eastern end of these buildings.</p>	
<p><b>B6</b></p>	<p><b>Negligible suitability</b></p> <p>Double storey hotel accommodation building, 1970s-90s style. Walls constructed from rendered brick walls with some wooden cladding on the western elevation in good condition. Pitched roof with interlocking clay tiles. Has a narrow single-storey extension on the southern aspect which has a flat roof covered in roofing felt.</p>	




- 2.31. The potential roost features (PRFs) identified on / in buildings B1 and B2 are detailed in **Table 2.5** below and are shown on the Bat Surveys Plan (Plan 2: **15104/P02**), appended at the end of this report.
- 2.32. Building B1 refers to the two-storey pub (a listed building) of brick construction with a steep pitched roof with slate roofing tiles and building B2 refers to a single-storey building as an extension to B1 making up part of the pub bar.
- 2.33. The PBRA found building B1 to have moderate suitability for roosting bats because of external features recorded to have potential to support roosting bats. This building has three separate loft voids in three separate sections of the building. No bats or evidence of bats, such as droppings, was observed within these spaces.
- 2.34. Building B2 was found to have low suitability for roosting bats and buildings B3 – B6 were found to have negligible suitability.






Table 2.5: Results of the PBRA

Building and suitability for bats	Feature and description	Photo
<p><b>B1</b> <b>Moderate suitability</b></p>	<p><b>Loft void 1</b> – the loft void in the south of the building was well-sealed with asbestos cladding. No external access was observed from the limited access though one broken section of cladding was noted.</p>	
	<p><b>Loft void 2</b> – the loft void in the east of the building had timber joists and a bitumen lined roof. It was uninsulated with a damp smell and many spider webs.</p>	
	<p><b>Loft void 3</b> – the loft void in the north of the building was cladded with wooden paneling and wooden joists over its entirety. A small amount of daylight was visible on the eastern aspect of the building through a small gap in the brickwork.</p>	




Building and suitability for bats	Feature and description	Photo
	<p><b>PRF a</b> – gaps where tiles of dormer windows meet the roof and raised tiles of dormer windows.</p>	
	<p><b>PRF b</b> – gaps were present under some of the slate tiles in the south of the building, some missing, broken or raised.</p>	
	<p><b>PRF c</b> – gaps were present under the slate tiles between the eastern and southwestern building sections.</p>	



Building and suitability for bats	Feature and description	Photo
	<p><b>PRF d</b> – gaps at roof apex and top of wall on gable end on south western elevation where timber has rotted.</p>	
	<p><b>PRF e</b> – gap under lead flashing where chimney meets the roof.</p>	
	<p><b>PRF f</b> – small flat-roofed outbuilding extension used for kitchen storage connected to main building B1. Feature many lifted slate tiles and wooden slats above the door.</p>	
	<p><b>PRF g</b> – gap where pipe enters building and one missing brick. Seems to lead into loft space.</p>	



Building and suitability for bats	Feature and description	Photo
B2 Low suitability	PRF h – gap within a ridge tile on the southern aspect of the building	

- 2.35. None of the trees within the site had suitability for roosting bats, with no PRFs such as woodpecker holes or cavities.

### Bat Emergence/Re-entry Surveys

- 2.36. Due to building B1 having moderate suitability for roosting bats, it was subject to two emergence/re-entry surveys which were carried out in August and September 2022, in accordance with best practice guidelines<sup>11</sup>. A bat was observed emerging from the building during the first emergence survey, therefore it was subject to third emergence survey to confirm classification of the roost. Building B2, assessed as having low suitability for roosting bats, was subject to one emergence survey. The full methodology is detailed in **Appendix 2** and PRF and surveyor positions are shown on the Bat Surveys Plan (Plan 2: **15104/P02**).
- 2.37. The emergence of a common pipistrelle bat during the first dusk survey only, indicating that building B1 is likely as a summer day roost for a small number of individual bats. No other emergences/re-entries were observed during the dusk and dawn surveys and overall the surveys were quite quiet, indicating little bat activity within the wider site. The full results of these surveys and weather conditions are detailed in **Appendix 3** of this report.
- 2.38. When taking into account the suitability of the site habitats, current levels of lighting and results of the bat emergence surveys on the site, overall it is considered that the assemblage of bats utilising the site is of no more than **local ecological importance**. It is also highly unlikely that it is important in maintaining or offering functionally linked land such that the assemblage of internationally important bats associated with the nearby SAC would not be expected to be reliant on the site.

### Birds

- 2.39. The desk study returned 174 of birds within 2 km of the site boundary. The closest record was that of a grey wagtail *Motacilla cinerea*, 0.1 km north of the site boundary. Other notable species

<sup>11</sup> Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition. The Bat Conservation Trust, London





recorded nearby included Birds of Conservation Concern<sup>12</sup> The wider -listed species including house sparrow *Passer domesticus* and starling *Sturnus vulgaris*.

- 2.40. associated with the Wye Valley, offers habitat of higher suitability for foraging and commuting foraging and nesting birds. Robin *Erithacus rubecula*: house sparrow *Erithacus rubecula* and pied flycatcher *Ficedula hypoleuca* were observed during the 'extended' Phase I. habitat survey.
- 2.41. The site is not considered to be of any particular ornithological interest, with the assemblage comprising common bird species and as such the site is considered to be of **negligible importance** for birds.

## Hazel Dormouse

- 2.42. The desk study returned nine records of hazel dormouse *Muscardinus avellanarius*, a species included in the Monmouthshire BAP, the nearest of which was recorded within the site in 2016.
- 2.42. There is limited suitable habitat for hazel dormice in a small area of the site along the river corridor along the northern boundary where there are shrubs and a small beech hedgerow, though this is managed and species-poor so not optimal habitat. Aerial mapping shows that this habitat has good connectivity to suitable woodland habitat for the species in the wider landscape to the west. Due to the limited suitable habitat on site, it is considered to be sub-optimal for hazel dormice BAP they would not be expected to be present, although could move through the site. Any small numbers of individuals moving through the site as part of a population in the wider area would not be expected to be reliant on the site and would not be expected to be of more than **local ecological importance**.

## Otter

- 2.44. The desk study returned 17 records of Eurasian otter *Lutra lutra*, the nearest of which was recorded 0.2 km south of the site in 2014.
- 2.42. The River Wye, located 0.1 km northeast of the site at its closest point offers habitat suitable for otter. The Anghidi Rive, as a tributary of the River Wye, could therefore support commuting otters within the site boundary. No otter holts were observed during the river survey that was undertaken in September 2022. However, one mammal run at the edge of the river was recorded (TN5). Due to its context in the wider catchment, the section of the Anghidi running through the site would be in September form part of a much wider resource for otter and they would not be reliant upon the site. Any individuals using the site would be of no more than **local importance for otters**.

## Reptiles

- 2.46. The desk study returned no records of reptiles within 2 km of the site boundary. a species habitats he section of the Anghidi running through the site would be and river corridor with a compost pile (TN4). offer habitat suitable along the river corridor for common reptiles such as slow worm *Anguis fragilis*, which is included in the Monmouthshire BAP. and grass snake *Natrix helvetica*. The site does not provide sufficient habitats that would support large numbers of common reptile or be

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<sup>12</sup> Eaton et al. (2015) Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man, British Birds



important in supporting a large population within the locality. As such any low numbers of individuals utilising the site would be unlikely to be of more than **local ecological importance**.

## Water Vole

- 2.47. The data search returned no records of water vole *Arvicola amphibius* within the last 10 years within 2 km of the site.
- 2.48. The riparian vegetation within the site boundary lacks vegetation structure suitable for foraging and shelter and no signs of water vole were recorded during the River Morph surveys in 2022. Overall, the site and adjacent riparian vegetation are considered to be sub-optimal for water voles..

## West European Hedgehog

- 2.49. Three records of west European hedgehog *Erinaceus europaeus*, the nearest of which was recorded 0.3 km southeast of the site boundary 2017. Hedgehog is listed as a protected species under *Arvicola*<sup>13</sup> of the Environment (Wales) Act 2016, with a declining population in the UK<sup>14</sup>.
- 2.50. Due to its connectivity with the wider landscape, commuting hedgehogs may utilise the site. however, as hedgehogs are likely very common in the wider landscape, within the last 10 years the site would be likely to be of **negligible amphibius importance**.

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<sup>12</sup> List of the living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales under Section 7 of the Environment (Wales) Act 2016

<sup>14</sup> Wilson & Wembridge. 2018. The State of Britain's Hedgehogs [Online] Available at: [https://www.hedgehogstreet.org/wpcontent/uploads/2018/02/SoBH-2018\\_final.pdf](https://www.hedgehogstreet.org/wpcontent/uploads/2018/02/SoBH-2018_final.pdf)



## Section 3: Potential Impacts, Mitigation and Enhancements

- 3.1. The proposals comprise the construction of an outdoor seating area and tent structure, as well as the construction of a mushroom house, lockable cycle shed, installation of LPG tanks and a wash-down area for dogs. The proposals also include the creation of a new café garden area and play area with associated soft landscaping across the site and re-development of car parking. 2.49. proposals, including details of planting, are shown in the plans in **Appendix 5**.
- 3.2. important in supporting a large population within the locality. As such any low numbers of reference to relevant legislation and planning policy, which is summarised in **Appendix 1**.

### Potential Impacts and Requirement for Mitigation

- 3.3. Both the Countryside and Rights of Way (CRoW) Act 2000 and the Environment (Wales) Act 2016 give the importance of maintaining and enhancing biodiversity a statutory basis, requiring government departments (which includes Local Planning Authorities) to have regard for biodiversity in carrying out their obligations (which includes determination of planning applications) and to take positive steps to further the conservation of listed species and habitats, including the promotion of the resilience of ecosystems. These articles of legislation require Monmouthshire County Council to take measures to protect species or habitats from the adverse effects of development, where appropriate, by using planning conditions or obligations. Planning authorities should refuse permission where harm to the species or their habitats would result, unless the need for, and benefits of, the development clearly outweigh the harm.
- 3.4. give Planning Policy Wales (PPW) framework requires that the planning system should contribute to and enhance the natural and local environment, minimising impacts on biodiversity and providing net gains, as well as local planning policy, as stipulated by Section 6 of the Environmental (Wales) Act 2016. A summary of this legislation is provided in **Appendix 1**.

### Designated Sites

#### Statutorily Designated Sites

- 3.3. The site is located within 1 km of three international statutory designated sites and four national statutory give, with the closest being the River Wye SAC and SSSI, 0.1 km northeast of the site.
- 3.3. It is the responsibility of the local authority to follow the Habitats Regulations Assessment (HRA) process to determine potential for likely significant effects on the River Wye SAC, Wye Valley Woodlands SAC and Wye Valley and Forest of Dean Bat Sites SAC . Information to inform and support the council's HRA will be submitted in the form of an HRA screening document as an addendum to this report. Nevertheless, the drainage strategy statement (Andrew Waring Associates Ref: 13177.2/TWH/BW) confirms that the surface water run-off characteristics of the site (via permeable paving and soakaways) remain unchanged hence no additional runoff is anticipated once the site is operational. Together with the implementation of a Construction Environmental Management Plan (CEMP) to avoid pollution effects during construction, the proposed planting of native vegetation and management through a Habitat Management and Monitoring Plan (HMMP) and implementation of a suitable lighting strategy, as detailed in the



'Habitats and Flora' and 'Bat' sections below, it is considered the risk of significant effects on the qualifying features of these internationally important sites would be avoided.

## Non-statutorily Designated Sites

- 3.7. There are 28 non-statutorily designated sites within 2 km of the site boundary, which could be impacted during the construction phase if works are not implemented sensitively..
- 3.8. However implementation of best practice methods<sup>15</sup> to be incorporated within a CEMP, such as those in relation to noise, vibration, dust and contaminated run-off will ensure no impacts occur to any adjacent habitats, protected sites in the study area or other off-site receptors. No adverse impacts to non-statutory sites are anticipated when the proposals are operational.

## Habitats and Flora

- 3.9. Through application of the mitigation hierarchy, the 'Habitats and Flora' and 'Bat' sections below majority of habitats within the site (hardstanding, artificial surfaces, introduced shrub, amenity grassland, non-native hedges and ruderal vegetation) impacts to nonare of negligible ecological importance a3.9.hence their losses require no specific mitigation.
- , it is Habitats of local ecological importance, namely the beech hedge and scattered broadleaved importancmostly to be retained. Retained trees and their roots and hedgerows will requiring safeguarding where appropriate or where works are within root protection areas in accordance in ac the British Standard for trees and construction, BS 5828 in ac and in line with the requirements of the arboricultural impact assessment (AIA) report (TG report ref: 15104\_R02).
- 3.11. Some trees along the western and northern site boundaries are to be removed, as well as the willow located within the amenity grassland, to facilitate the proposals. However, the loss of these trees will be compensated for through the planting of native trees, hedgerow and shrub planting as shown on at Appendix 5.
  - 3.12. The Anghidi river, as a tributary of the River Wye, is of up to county ecological importance and therefore mitigation measures will be implemented to avoid impact to the river by the development, There will be a 5.5 m buffer zone, between the river and the nearest post of the proposed tent, where no development will occur. The and itself will be self-supporting, so the foundations required for the posts are minimal and discrete, and the proposed seating area is to be surfaced with a permeable make-up of compacted gravel and will not require extensive earthworks.
  - 3.12. During the construction phase of the proposed development (notably the installation of the tent posts), there is a risk of direct impacts to the river via run-off, noise/vibration impacts, dust etc. Standard best practice pollution prevention is therefore expected to be incorporated into a CEMP. These potential impact pathways will thus be controlled and impacts to the Anghidi river and River Wye avoided. It the River Wye recommended that invasive species be removed, and native trees and shrubs are to be planted along the top of the river banks as means of enhancement.
  - 3.14. Further details of proposed mitigation and enhancements are discussed in **Section 4T** o determine whether the proposed development meets the requirements of the Welsh government's net

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<sup>15</sup> CIRIA (2015) Construction Work Sector Guidance for Designers. Fourth edition



benefits for biodiversity approach (defined by the DECCA, Diversity, Extent, Condition, Connectivity and Adaptability, framework) an assessment has been completed and is discussed in **Section 4** of this report.

- 3.15. Management to ensure ecological value of retained and created habitats within the site should be controlled through a HMMP. This should support the scheme to comply with the PPW framework, as well as the DECCA framework.

## Protected Species

### Badger

- 3.15. Although not considered an important ecological feature on the site, potential impacts to badger have been considered to ensure legal compliance. The legislation protecting badgers, the Protection of Badgers Act, 1992, protects them against killing, injury and cruel ill-treatment as well as preventing damage, destruction or obstruction to an active badger sett, or from disturbing a badger when it is occupying such a sett.
- 3.17. No badgers' setts or signs of badger were identified during the phase I survey. However, given the presence of suitable habitat on site, and in the wider landscape, for foraging, badgers may be using the site. The following precautionary methods of works should therefore be undertaken during the construction phase of the development:

A pre)commencement check for badgers is undertaken at a maximum of three months prior to work commencing on site;

In the unlikely event recent signs of badger activity, primarily excavation of setts are recorded on site prior to construction activities, further advice from an ecologist should be sought;

To ensure badgers are protected from accidental harm during construction, exposed trenches will be covered or have an inclined plank in them overnight, to offer a means of escape, should badgers be commuting across the site;

Store any chemicals in a secure, inaccessible area overnight;

Cap any temporarily exposed pipes overnight to prevent badgers from accessing them; and

will be covered or have an inclined plank in them overnight, to offer a means of escape, should finishing overnight.

### Bats

- This Bat species, their breeding sites and resting places are European protected species under the presence of suitable habitat on site, and in the wider landscape, for foraging, badgers may be under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), making it an offence to capture, injure or kill a bat or to disturb or obstruct access to a bat roost. Certain species of bat are also listed as protected species under Section 7 of the Environment (Wales) Act 2016.
- 3.15. A common pipistrelle day roost was identified in building B1 during the first bat emergence survey in August 2022. Although the building is not to be impacted by the works, . Although mitigation and enhancements has taken into account the assemblage of bats utilising the site; common and soprano pipistrelles and noctules (the latter two of which are protected species under Section 7 of



the Environment (Wales) Act) were observed foraging and commuting within the site during the emergence/re-entry surveys.

- 3.20. A sensitive lighting strategy for bats, in line with BCT guidance note 08/23<sup>16</sup>, is to be implemented to ensure the value of the site for bats is maximised during the construction phase and once the development is built. A lighting scheme – shown in the Exterior Services drawing (ref: TWH-JJB-LD-GF-DR-L-0103) in **Appendix 5** – has been designed to maintain dark, unlit areas by avoiding the illumination of potential bat foraging and commuting habitats, particularly the river corridor in the north of the site and retained and planted vegetation that is not already subject to illumination. These areas will be maintained at less than 0.5 lux. Given the current high levels of lighting on the site it is anticipated that a betterment for bats could be realised through the implementation of a controlled lighting scheme on the site.
- is to ensure the value of the site for bats is maximised during the construction phase and once the development is built. These have been specifically selected to be in keeping with the heritage and character of the area. They are to be specified with warm lighting LED bulbs (2700K or less) and both location and to ensure the value of the site for bats is maximised during the construction phase and once the development is built to ensure the value of the site for bats is maximised during the construction phase and once the development is built to preserve dark hours for both local wildlife and local residents.
- 3.22. The site will be enhanced for bats utilising the site through the provision of two bat boxes, which are to be incorporated into the proposed mushroom house, the location of which is shown on the General Arrangement Plan (ref: TWH-JJB-LD-GF-DR-L-0101) in **Appendix 5**. Planting of native BCT, wildflowers and native hedgerow with species including honeysuckle provision *periclymenum* will also enhance the site for bats by increasing the amount of invertebrate forage available.
- 3.22. is to proposed mitigation and enhancements with respect to the commuting and foraging opportunities for bats within the site will ensure there is no significant adverse effect on any of the bat assemblages, in line with al wildlife and local residents.PPW framework, as well as Policy S13 of the Monmouthshire Local Plan.

## Birds

- 3.24. The buildings, introduced shrub, hedges and scattered trees within the site offer habitat suitable for foraging and nesting birds.
- 3.25. All nesting birds, their nests, eggs and young are protected under the WCA 1981 (as amended), which makes it illegal to knowingly damage or destroy a nest site while it is in use or being built. It is therefore recommended that any required vegetation clearance works are completed outside of the core nesting bird season (March–August inclusive), although nests can be present at any time of year. Where this is not possible, a pre-clearance nesting bird check should be completed by a suitably experienced ecologist. If nesting birds are found to be present, a buffer zone around which makes it illegal to knowingly damage or destroy a nest site while it is in use or being built. chicks have fledged. A repeat visit by the ecologist will be required to determine if the chicks have fledged. These measures should be incorporated into a CEMP.

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<sup>16</sup> Bat Conservation Trust 'Bats and Artificial Lighting at Night' ILP Guidance Note



- 3.25. The site will be August inclusive), although nests can be present at any three bird boxes, on the alder trees in the north of the site, into the scheme design, in line with Policy S13 of the Monmouthshire Local Plan.
- 3.27. Providing the above measures are followed, no adverse impacts on birds are anticipated as a result of the development,

### **Hazel Dormouse**

- 3.28. Hazel dormice are designated and protected as an EPS under the Conservation of Habitats and Species Regulations 2017, making it an offence to deliberately kill, injure, disturb or capture them.
  - 3.25. Owing to the overall very limited presence of habitat suitable for dormice on site, and that all suitable habitat (the hedgerows) is to be retained during construction, surveys for dormice were not undertaken.
  - 3.24. However, given that some hedgerow in the west of the site is to be in the north of the site development, this removal should be completed under precautionary working methods and the supervision of a suitably qualified ECoW, following a thorough fingertip search of the area that is he chicks have
- site If a dormouse or evidence of dormice is found during this search or during removal work, then all works must stop and the site will require a NRW dormouse mitigation licence before any further works that may impact dormouse habitat can be undertaken. This licence would detail the appropriate mitigation measures required in order for the removal of hedgerow to continue.
- 3.25. The creation of native hedgerow using species known to benefit dormice, including honeysuckle (see the Soft Planting Plan (ref: three-JJB-LD-GF-DR-L-0112) in **Appendix 5**), is expected to provide a net gain in terms of suitable dormice habitat, post-development, as well as increase connectivity to suitable areas of off-site habitat.

### **Otter/Water Vole**

- 3.33. Otters are designated and protected as an EPS under the Conservation of Habitats and Species Regulations 2017, making it an offence to deliberately kill, injure, disturb or capture them
- 3.34. As the Anghidi river runs through the site and offers habitat suitable for foraging otters, if not implemented sensitively the proposals could damage the river corridor used by wide /water volei
- 3.33. Although further surveys are not considered necessary, as it is likely that the species are not using the river channel with great frequency, considerations should be made for this species during the construction phase of development; best practice pollution avoidance methods will be used to prevent impacts to the water course, the methods of which will be controlled through a CEMP.
- 3.33. As a precaution, preliminary checks of the riparian corridor prior to the construction should also be conducted, however given the closest tent post sits 5.5m from the top of the bank, direct interference is highly unlikely to occur.
- 3.37. the enhancement of the river through management and provision of additional vegetation will provide more foraging opportunities for European otter within the river corridor.



## Reptiles

- 3.38. the river channel with great frequency, considerations should be made for this species during the it an offence to intentionally, or recklessly, kill or injure a reptile.
- 3.33. The site offers habitat suitable for reptiles, although the extent of suitable habitat is limited to the edge habitat along the river corridor in the north of the site and the area of ruderal vegetation in the southwest corner of the site, As the proposed development includes the removal of the area of ruderal vegetation to facilitate the construction of a car park, a precautionary working method statement (PWMS) should be used to prevent harm to reptiles, with habitat suitable for reptiles to river corridor being directionally strimmed and under supervision of ECoW where appropriate. The PWMS can be incorporated into the CEMP and controlled via a planning condition.,
- 3.40. the river channel with great frequency, considerations should be made for this species during the Policy S13 of the Monmouthshire Local Plan. This will be achieved through the enhancement of terrestrial habitat through planting of native vegetation, as described above, and controlled via the production of an HMMP, The creation of hibernacula such as log piles would further enhance the site for reptiles, through offering sheltering opportunities.

## West European hedgehog

- 3.41. The ruderal vegetation and hedges offer cover and foraging opportunities for hedgehogs and thus a small number of commuting hedgehogs may use the site.
- 3.42. Hedgehog is listed as a protected species under Section 7 of the Environment (Wales) Act 2016, with a declining population in the UK. Consequently, they are a material consideration within the Hedgehog is listed as a protected species under Section 7 of the Environment (Wales) Act 2016, England and Wales to have regard, in the exercise of their functions, to the purpose of conserving biodiversity. To demonstrate due care for this SoPI, basic mitigation measures will be adhered to during the construction and operational phases, namely:

Any proposed fencing will have a 150 mm x 125 mm opening at its base level to maintain connectivity for hedgehogs which may be using the site;

Ensure any mounds of freshly dug soil, woodchip or other vegetation are flatted prior to works finishing overnight to prevent hedgehogs sheltering within these features;

Ensure any mounds of freshly dug soil, woodchip or other vegetation are flatted prior to works is not feasible, they should be moved via a heavy-duty gloved hand to a safe area on or off site, where no construction activity is occurring; and

In the event that any vegetation clearance is required within hedgehog hibernation season (generally considered to be October to April, inclusive) it is recommended that a pre-start check fencing will have a 150 mm x 125 mm opening at its base level to maintain truction phase.





## Section 4: Net Benefits for Biodiversity

- 4.1. Hedgehog is listed as a protected species under Section 7 of the Environment (Wales) Act 2016, resilience, which is based on five attributes specified in the Environment (Wales) Act. These attributes are Diversity, Extent, Condition, Connectivity and Aspects of ecosystem resilience (DECCA). The definitions of these are as follows:

Diversity: maintaining and enhancing diversity at every scale, including genetic, structural habitat and between-habitat levels.

Extent: incorporating measures which maintain and increase the area of semi-natural habitat/features and linkages between habitats.

Ensure any mounds of freshly dug soil, woodchip or other vegetation are flattened prior to works both as short term and longer-term types of disturbance. Both direct and wider impacts should be considered, for example avoiding or mitigating pressures such as climate change, pollution, invasive species, land management neglect etc.

Diversity: maintaining and enhancing diversity at every scale, including genetic, structural physical corridors, stepping stones in the landscape, or patches of the same or related vegetation types that together create a network that enables the flow or movement of genes, Diversity: maintaining and enhancing diversity at every scale, including genetic, structural habitat and ecological networks within and between ecosystems, building on existing connectivity.

Ensure any mounds of freshly dug soil, woodchip or other vegetation are flattened prior to works physical corridors, stepping stones in the landscape, or patches of the same or related disturbance are defining features of ecosystem resilience.

- 4.2. The net benefits for biodiversity (NBB) approach by the Welsh Government puts emphasis on proactive consideration and wider ecosystem benefits. In the context of the proposed development, impact to the river and the majority of the scattered trees will be avoided in the first instance and losses (of trees) will be compensated for where this has not been possible.
- 4.2. The proposed development includes the planting of 37 native trees including alder, field maple *Acer campastre*, goat willow *Salix caprea*, hawthorn *Crategeous monogyna*, holly *Ilex aquifolium* and small-leaved lime *Tilia cordata*, concentrated primarily along the western and southern site boundaries. Various stretches of native yew *Taxus baccata* and native beech hedgerow planting are proposed throughout the site, as shown in the proposed site plans in **Appendix 5** proposed native mixed hedgerow planting will comprise alder buckthorn *Rhamnus frangula*, blackthorn *Prunus spinosa*, dog rose *Rosa canina*, hawthorn, holly and honeysuckle.
- 4.4. In addition to this, planting of native-ground flora is proposed throughout the site – to include wild daffodils *Narcissus pseudonarcissus*, wild garlic *Allium ursinum*, wood anemone *Anemone nemerosa*, long meadow grasses and wildflowers – as well as areas of ornamental shrub planting with species such as rosemary *Rosmarinus* sp. and valerian *Centranthus lecoquii* and a green wall comprising *Osmanthus burkwoodii* and wild strawberries *Fragaria vesca* planted underneath.

### Management

- 4.5. Details of habitat establishment and long-term management to ensure ecological valued on retained and created habitats should be controlled through an HMMP, as stipulated by the



DECCA framework. The HMMP would set out the prescriptions for the establishment and maintenance of the habitats on site for the lifetime of the new pub development, and would also outline details on additional ecological enhancements for protected species. These enhancements would include the proposed installation of bat and bird boxes, as well as planting of native shrub, hedgerows and tree species, in line with the NBB approach.



## Section 5: Conclusions

- 5.1. HRA screening, the results of which will be detailed as an addendum to this report, will detail the assessment of likely significant effects on SACs within the vicinity, however implementation of the measures set out in this report and incorporated into the proposals indicate that there would be no impacts on SACs.
- 5.2. It is recommended that proposed mitigation and enhancements *Narcissus pseudonarcissus* are secured via appropriately worded planning conditions to include , in line with the NBB approach | HMMP, and a sensitive lighting strategy.
- 5.2. In conclusion, it is considered that the the proposals for the site would accord with relevant legislation and planning policy and seek to protect and enhance ecological features where possible.



# Appendix 1: Policy and Legislation

## Legislation

- A1.1 Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
  - The Conservation of Habitats and Species Regulations 2017 (as amended);
  - The Countryside and Rights of Way (CROW) Act 2000;
  - The Natural Environment and Rural Communities Act (NERC) 2006;
  - The Hedgerows Regulations 1997; and
  - The Protection of Badgers Act 1992.
- A1.2 The European Council The Conservation of Habitats and Species Regulations 2017 (as amended); Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species legislation and planning policy and seek to protect and enhance ecological features where Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2018 (as amended).
- A1.2 and species considered of European importance. Annexes II and IV of the Directive list all species and species considered of European importance. Annexes II and IV of the Directive list all species amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, legislation and planning policy and seek to protect and enhance ecological features where disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.
- A1.4 The CROW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as and species considered of European importance. Annexes II and IV of the Directive list all species place of rest or shelter or breeding/nest site.

## National Planning Policy

### Planning Policy Wales (PPW), February 2024

- A1.2 Planning Policy Wales (PPW) was updated in February 2024 and sets out the Government's planning policies for Wales and how these should be applied. It includes provision for Net Benefits for Biodiversity.
- A1.2 Section 6.4 of the PPW considers biodiversity and ecological network and states that *"the planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual both protect against loss and to secure enhancement.*



legislation and planning policy and seek to protect and enhance ecological features where legislation and planning policy and seek to protect and enhance ecological features where *Statements and species records from Local Environmental Record Centres* s planning policies for legislation and planning policy and seek to protect and enhance ecological features where need to:

*4upport the conservation of biodiversity, in particular the conservation of wildlife and habitats;*

*Ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;*

*Ensure statutorily and non-statutorily designated sites are properly protected and managed;*

*4afeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and*

*4ecure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks."*

A1.7 The Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty) states that "*planning and species considered of European importance. Annexes II and IV of the Directive list all species disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual locally or nationally and must provide a net benefit for biodiversity. In doing so planning authorities must also take account of and promote the resilience of ecosystems, in particular the following aspects:*

Diversity between and within ecosystems;

The connections between and within ecosystems;

The scale of ecosystems;

The condition of ecosystems including their structure and functioning; and

The adaptability of ecosystems.

A1.8 *In fulfilling this duty, planning authorities must have regard to:*

The list of habitats and species of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2017;

The SoNaRR, published by NRW; and

Any Area Statement that covers all or part of the area in which the authority exercises its functions.

A1.9 The broad framework for implementing the Section 6 Duty and building resilience through the planning system includes addressing: Diversity, Extent, Condition, Connectivity and Adaptability to change (DECCA).

A1.10 Section 6.2 specifies the need for a green infrastructure statement:



*"A green infrastructure statement should be submitted with all planning applications. This will be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal. In the case of minor development this will be proportionate to the scale and nature of the development proposed and will describe how green infrastructure statement will be an effective way of demonstrating positive multi-functional outcomes which are appropriate to the site in question and must be used for demonstrating how the step-wise approach (Paragraph 6.4.15) has been applied."*

## Local Planning Policy

### Monmouthshire County Council Local Development Plan<sup>17</sup> (adopted 2014)

#### A1.11 Policy S13 – Landscape, Green Infrastructure and the Natural Environment

*"Development proposals must:*

1. *Maintain the character and quality of the landscape by:*
  - i) *Identifying, protecting and, where appropriate, enhancing the distinctive landscape and historical, cultural, ecological and geological heritage, including natural and man-made elements associated with existing landscape character;*
  - ii) *Protecting areas subject to international and national landscape designations;*
  - iii) *Preserving local distinctiveness, sense of place and setting;*
  - iv) *Respecting and conserving specific landscape features, such as hedges, trees and ponds;*
  - iii) *Protecting existing key landscape views and vistas.*
2. *Maintain, protect and enhance the integrity and connectivity of Monmouthshire's green infrastructure network.*
2. *Protect, positively manage and enhance biodiversity and geological interests, including designated and non-designated sites, and habitats and species of importance and the ecological connectivity between them.*
4. *Seek to integrate landscape elements, green infrastructure, biodiversity features and ecological connectivity features, to create multifunctional, interconnected spaces that offer opportunities for recreation and healthy activities such as walking and cycling.*

### Monmouthshire Replacement Local Development Plan<sup>18</sup> (September 2023)

#### A1.12 Policy NE1 – Nature Conservation and Development

*"Development proposals that would have a significant adverse effect on a locally designated site of biodiversity and / or geological importance, or a site that satisfies the relevant designation criteria, or on the continued viability of priority habitats and species, as identified in the UK or Local Biodiversity Action Plans or Section 42 list of species and habitats of importance for conservation of biological diversity in Wales, will only be permitted where:*

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<sup>17</sup> Monmouthshire County Council Local Development Plan [Online] Available at: <https://www.monmouthshire.gov.uk/app/uploads/2018/03/Final-Review-Report-1.pdf> [Accessed 25/03/24]

<sup>18</sup> Monmouthshire Replacement Local Development Plan (September 2023 Update) [Online] Available at: <https://democracy.monmouthshire.gov.uk/documents/s36387/Appendix%20%20MCC%20RLDP%20Preferred%20Strategy%20Update%20September%202023.pdf> [Accessed 27/03/24]



A) the need for the development clearly outweighs the nature conservation or geological importance of the site; and

B) it can be demonstrated that the development cannot reasonably be located elsewhere.

Where development is permitted, it will be expected that any unavoidable harm is minimised by effective avoidance measures and mitigation. Where this is not feasible appropriate provision for compensatory habitats and features of equal or greater quality and quantity must be provided.

Where development is permitted, it will be expected that any unavoidable harm is minimised by likely impact of the proposal on the species /habitats, and, where necessary, shall make appropriate provision for their safeguarding.

Development proposals shall accord with nature conservation interests and will be expected to:

- i) Retain, and where appropriate enhance, existing semi-natural habitats, linear habitat features, other features of nature conservation interest and geological features and safeguard them during construction work;
  - ii) Incorporate appropriate native vegetation in any landscaping or planting scheme, except where special requirements in terms of purpose or location may dictate otherwise;
  - iii) Incorporate appropriate native vegetation in any landscaping or planting scheme, appropriate building design, site layouts, landscaping techniques and choice of plant species;
- B) Where appropriate, make provision for on-going maintenance of retained or created nature conservation interests.”

**Monmouthshire Public Rights of Way** natural habitats, linear habitat

A1.13 The Monmouthshire BAP<sup>19</sup> outlines Action Plans for the following species and habitats:

Habitat	Objectives	Related Priority Species
Species-rich pastures and floodplain pastures	Prevent further loss and maintain and enhance existing species-rich grasslands  Eliminate where possible alien vegetation	Lapwing  Skylark  Greater butterfly orchid  Pink waxcap

<sup>19</sup> Thomson Ecology Ltd on behalf of Monmouthshire County Council [Online] Available at: [https://monmouthshire.gov.uk/app/uploads/2013/06/Rights\\_of\\_Way\\_Biodiversity\\_Action\\_Plan.pdf#:~:text=The%20strategic%20objectives%20of%20the%20plan%20are%3A%20E2%80%A2,which%20support%20local%2C%20regional%20and%20national%20biodiversity%20objectives.](https://monmouthshire.gov.uk/app/uploads/2013/06/Rights_of_Way_Biodiversity_Action_Plan.pdf#:~:text=The%20strategic%20objectives%20of%20the%20plan%20are%3A%20E2%80%A2,which%20support%20local%2C%20regional%20and%20national%20biodiversity%20objectives.) [Accessed 23/03/24]



Boundary and linear features	<p>Maintain, restore and expand boundary and linear features</p> <p>Hedgerows, road verges, green lanes, forest rides, field margins, stone walls</p>	<p>Hazel dormouse</p> <p>Harvest mouse</p> <p>Greater and lesser horseshoe bats</p>
Built environment and associated green space	<p>Maintain, restore and expand areas valuable for wildlife in the built environment and associated green space</p> <p>environment and associated appropriate management</p>	<p>Dunnock</p> <p>Slow worm</p> <p>Hedgehog</p> <p>Pipistrelle bat</p>
Hedgehog	<p>Maintain, restore and expand existing woodland in Monmouthshire</p> <p>Promote appropriate management of woodland sites</p>	<p>Noctule bat</p> <p>Hazel dormouse</p> <p>Argent and sable moth</p>





# Appendix 2: Survey Methodology

## Data Search

A2.1 A desk-based study was conducted whereby records of designated sites and records of protected and priority species were purchased. The following resources were consulted / contacted:

Multi-Agency Geographic Information for the countryside (MAGIC) website<sup>20</sup>;

South East Wales Biodiversity Records Centre (SEWBRc) (Data received 15<sup>th</sup> August 2022);

Monmouthshire County Council<sup>21</sup>;

Joint Nature Conservation Committee (JNCC) website<sup>22</sup>;

Natural England (NE) designated sites website<sup>22</sup>;

Ordnance Survey mapping; and

Google Maps, including aerial photography.

A2.2 The following areas of search around the boundary of the site boundary were applied:

4 km for bats;

2 km for other protected and priority species, non-statutory and statutory designated sites;  
EW

10 km for European statutory sites.

A2.2 The search area for bat records was extended to 4 km due to the site's location, 2.2 km southwest of the Wye Valley and Forest of Dean Bat Sites SAC, which is within the 3 km core sustenance zone for greater horseshoe bats for which the SAC is designated.

## Extended Phase I Habitat survey

A2.4 A site walkover survey was undertaken on 7<sup>th</sup> September 2022 by Laura Boggeln MCIEEM, an experienced ecologist, and an updated walkover undertaken on 12<sup>th</sup> March 2024 by Vicky King-Cline MSc BSc. The methods used during the walkover survey broadly followed methods used in an 'extended' Phase I habitat survey<sup>24</sup>. This technique provides an inventory of the habitat types present and dominant species. Note was taken of the more conspicuous fauna and any evidence of, or the potential for, the presence of protected notable flora and fauna.

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<sup>20</sup> DEFRA (2024) Multi-Agency Geographic Information for the Countryside mapping [Online] Available at: <https://magic.defra.gov.uk/MagicMap.aspx> [Accessed: 25/03/2024]

<sup>21</sup> Monmouthshire County Council <https://www.monmouthshire.gov.uk/> [Accessed: 25/05/24]

<sup>22</sup> Joint Nature Conservation Committee (2024) UK Protected Areas [Online] Available at: <https://sac.jncc.gov.uk/> [Accessed 25/03/2024]

<sup>23</sup> Natural England (2024) Designated Sites View [Online] Available at: <https://designatedsites.naturalengland.org.uk/> [Accessed 25/03/2024]

<sup>24</sup> Joint Nature Conservation Committee (2010). Handbook for Phase I habitat survey - a technique for environmental audit. JNCC, Peterborough.



- A2.5 The weather conditions for the initial survey were predominantly sunny with light rain during the survey, with 20% - 75% cloud cover and a temperature approximately 16°C.
- A2.5 Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species.

## Preliminary Roost Assessment

- A2.7 A PRA of the structures and trees present within the site was completed on the 18<sup>th</sup> of July 2022 by Laura Boggeln. The PRA aimed to assess the suitability of trees and buildings within the site to support roosting bats. The survey followed standard methodologies<sup>2525</sup> which are described below.
- A2.8 The PRA for structures comprised a ground-level external inspection of all buildings present within the site to assess their potential to support roosting bats. In summary, this entailed the following:

A ground level visual inspection of the exterior of the structures within the site, examining features such as brickwork, cladding, and roofs for evidence of, or potential use by, bats including the presence of bat droppings, feeding remains, staining from 20-oil or urine, or even bats themselves; and

A ground level visual inspection of the exterior of the structures within the site, examining features such as brickwork, cladding, and roofs for evidence of, or potential use by, bats disturbance from lighting and other sources.

- A2.5 Additionally, the habitats identified were evaluated for their potential to support legally protected respective suitability of each tree for roosting bats. PRFs that may be used by bats, as defined within the Bat Conservation Trust (BCT) best practice guidelines<sup>11</sup>, were sought. Types of PRF may include the following:

Woodpecker holes, rot holes, knot holes arising from naturally shed branches and man-made holes;

Hazard beams and other vertical or horizontal cracks and splits (such as frost-cracks or 'tear outs') in stems or branches;

Partially detached, 'platey' bark;

Cankers;

Other hollows or cavities, including butt-rots;

Partially detached ivy with stem diameters in excess of 50mm; and

Bird, bat or dormouse boxes

- A2.10 Evidence of the presence of bat roosts was also sought. These signs included:

Presence of bats;

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<sup>25</sup> Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough

<sup>25</sup> Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition. The Bat Conservation Trust, London.



Bat droppings in, around or below a PRF;

Odour emanating from a PRF; and

Visible staining below a PRF.

A2.11 The suitability of structures and trees at the site to support roosting bats has been categorised against the criteria described in **Table A2.1**.

**Table A2.1: Roost Assessment Criteria<sup>27</sup>**

Suitability	Description of Roosting Habitats
<b>Negligible</b>	Negligible features likely to be used by roosting bats.
<b>Low</b>	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).  A tree of sufficient size and age to contain PRFs but with none seen from the ground or features are seen with only very limited roosting potential
<b>Moderate</b>	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
<b>High</b>	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for long periods of time due to their size, shelter, protection, conditions and surrounding habitat.

## Ground-level Tree Assessment

A2.12 An updated ground-level tree assessment (GLTA) of all trees within the site was carried out on 12<sup>th</sup> March 2024, in conjunction with the updated site walkover, by Vicky King-Cline to determine the respective suitability of each tree for roosting bats. The GLTA was carried out during the day and respective suitability of each tree for roosting bats. The GLTA was carried out during the day and shown on plan **15104-A2.12**

A2.12 All trees were inspected from the ground using binoculars and a high-powered torch. PRFs that may be used by bats, as defined within the Bat Conservation Trust (BCT) good practice guidelines<sup>28</sup>, were sought. PRFs of interest include as detailed in **Table A2.2** below.

<sup>27</sup> Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition. The Bat Conservation Trust, London.

<sup>28</sup> Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition. The Bat Conservation Trust, London. ISBN-978-0-7395126-0-6



**Table A2.2: PRF types than can be exploited by bats and how they form, adapted from Collins, 2023<sup>29</sup>**

PRFs Formed by Disease and Decay	PRFs Formed by Damage	PRFs Formed by Association
Woodpecker PRFs Squirrel holes Knot holes Pruning cuts Tear outs Wounds Cankers Compression Forks Butt rots	Lightning strikes Hazard beams Subsidence Cracks Shearing cracks Transverse snaps Welds Lifting bark Desiccation Fissures Frost cracks	Fluting Ivy

A2.14 The potential of the trees to support roosting bats was assessed using the criteria shown in **Table A2.3** below.

**Table A2.3: Assessment of Tree Suitability Criteria, adapted from Collins, 2023<sup>30</sup>**

Welds Suitability	Description of Roosting Habitat
Cracks	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

## Bat Emergence/Re-entry Surveys

A2.15 Two dusk emergence surveys and one dawn re-entry surveys were completed for the building with 'high' suitability for roosting bats, as identified during the PRA, in accordance with standard methodologies<sup>21</sup>.

A2.15 The emergence/re-entry surveys aimed to identify bats emerging from a roost. As per best practice guidelines, three emergence/re-entry surveys were carried out. One surveyor was positioned facing each PRF. Surveyor locations are shown in the Bat Survey Location Plan (**15104/P03**). The emergence/re-entry surveys were completed on the 2<sup>nd</sup> of August, the 16<sup>th</sup> of August and the 22<sup>nd</sup> of September 2022. The emergence surveys began 15 minutes before sunset and continued until 90 minutes after sunset and the re-entry survey began 90 minutes before sunrise and continued 15 minutes after sunrise, in accordance with best practice guidance.

A2.17 The surveyors used Batlogger M2 bat detectors to listen to and record echolocation calls of bats observed. Two infrared camera set-ups were also used, August and **Photograph A2.1** below.

<sup>29</sup> Adapted from: Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4<sup>th</sup> Edition). The Bat Conservation Trust, London. ISBN-978-9-7395126-0-6

<sup>30</sup> Adapted from: Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4<sup>th</sup> Edition). The Bat Conservation Trust, London. ISBN-978-9-7395126-0-6





**Photograph A2.1:** Infrared camera set up outside building B1 during emergence survey

A2.18 During the survey visits, surveyors noted whether bats were seen to exit or enter the building and collected incidental records of bat activity near the surveyor locations.

## Modular River Physical (MoRPh) Survey

A2.19 The Anghidi River tributary is present along the southern boundary of the Site and the 10 m riparian zone is within the Site redline. A River MoRPh survey was undertaken alongside the habitat survey on 7th September 2022 by Christian Cairns Qualifying Member of CIEEM, an experienced Senior Ecologist at Tyler Grange and MoRPh accredited surveyor.

A2.20 The methodology was based upon that set out in The MoRPh Survey Technical Reference Manual 2022<sup>31</sup>. This survey is undertaken on at least 20% of the total river length within the site. The surveys assessment information on short lengths (or modules) of a river that are approximately twice the river width. A subreach survey is comprised of five contiguous MoRPh module surveys to gather information for subreaches 50, 100, 150 and 200 m in length (250 m for canals, navigable and large rivers) according to the width of the river. MoRPh surveys included the river and all habitat within a radius of 10 m of the watercourse. The data recorded in each module to assess condition is comprised of 32 condition indicators, split between four morphological features (Bank Top, Bank Face, Channel- Water Margin and Channel Bed) and their relative abundances (Absent, Trace, Present or Extensive) within each MoRPh module.

A2.21 The above survey data is then compiled in Cartographer along details of the river in question in order to calculate the pre-project river condition.

## Survey Limitations

A2.22 The valley between roof pitches of building B1 was not able to be observed from the external PBRA inspection so it is unknown whether there are PRFs there. Surveyors were able to view either side of the valley to see if bats emerged or returned to this area of the building. Therefore, this limitation is not considered to impact the results of the surveys.

A2.23 Internal inspection of the loft voids of building B1 was limited by access due to asbestos present and only partial boarding. The general characteristics of the loft voids could still be recorded and

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<sup>31</sup> Gurnell, A., Shuker, L., England, J., Wharton, G., and Gurnell, D. (2022). The MoRPh Survey Technical Reference Manual Version 13.



The surveyors used Batlogger M2 bat detectors to listen to and record echolocation calls of bats of the surveys as a full suite of emergence and re-entry surveys was undertaken.

## Evaluation

- A2.24 The evaluation of habitats and species is defined in accordance with published guidance<sup>32</sup>entry level of importance of specific ecological features is assigned using a geographic frame of The surveyors used Batlogger M2 bat detectors to listen to and record echolocation calls of bats local.
- A2.25 Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as Sites of Species Scientific Interest (SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality to be important in terms of biodiversity. These include site designations (such as Sites of Species habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

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<sup>29</sup> CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland, version 1.1, CIEEM, Winchester.



## Appendix 3: Bat Survey Results

**Table A3.1: Emergence survey results for visit 1, on the 2<sup>nd</sup> August 2022**

Timing	Sunset: 20:58	Start time: 20:58	End time: 22:22:
Weather	At start		At end
Cloud Cover (%)	80		80
Wind (Beaufort Scale)	2		1
Precipitation	Dry		Light drizzle
Temperature (°C)	19		14
Building number	Surveyor Location (SL) reference Number	Survey results	
B1	SL 1	No emergence observed; noctule observed commuting over the building	
	SL 2	No emergence observed; noctule passes recorded (heard but not seen)	
	SL 2	No emergence observed; some incidental noctule, common and soprano pipistrelle activity recorded	
B1 & B2	SL 4	One emergence and one possible emergence of common pipistrelle observed from B1; occasional noctule, common and soprano pipistrelle passes recorded	

**Table A3.2: Emergence survey results for visit 2, on the 16<sup>th</sup> August 2022**

Timing	Sunrise: 05:57	Start time: 04:27	End time: 06:12
Weather	At start		At end
Cloud Cover (%)	80		80
Wind (Beaufort Scale)	0		0
Precipitation	SL 4		SL 4
Temperature (°C)	17		19
Building number	SL number	Survey results	
	SL 4		



B1		No re-entry observed; common and soprano pipistrelle recorded sporadically but not seen
	SL 2	No re-entry observed; occasional commuting passes of pipistrelle species and <i>Nyctalus</i> sp.
	SL 2	No re-entry observed; no incidental bat activity recorded
	SL 4	No re-entry observed; occasional pipistrelle passes recorded

**Table A3.2: Emergence survey results for visit 2, on the 22<sup>nd</sup> September 2022**

Timing	Sunset: 19:08	Start time: 18:52	End time: 20:38
Weather	At start		At end
Cloud Cover (%)	90		90
Wind (Beaufort Scale)	1		1
Precipitation	Dry		Light drizzle
Temperature (°C)	17		16
Building number	SL number	Survey results	
B1	SL 1	No emergence observed; some pipistrelles and noctules heard but not seen	
	SL 2	No emergence observed; one <i>Nyctalus</i> sp. and one unidentified bat heard but not seen	
	SL 3	No emergence observed; some pipistrelles and noctules heard but not seen	
	Dry	No emergence observed; some passes of common and soprano pipistrelles and noctules commuting and foraging	





# Appendix 4: MoRPH Survey Results

## River Condition and Strategic Significance

The pre-development MoRPH survey and assessment returned a condition of moderate with an index score of 0.7327935, see **Table A4.1** below. The current baseline was found not to be encroaching on the river channel, however there was major encroachment onto the river corridor from the existing site. The Anghidi River is not within any known management plan or local catchment.

**Table A4.1: Results of MoRPH 5 river survey condition assessment**

Index	Scores
Positive Index Average	2.5789473
Negative Index Average	-1.8461539
Preliminary Score (Positive Index + Negative Index)	2.5789473
River Type	Type A - 1.3793104
Condition Score (Preliminary Score + River Type)	2.112104

## Retained River Habitats and Condition Assessment

from the existing site. The Anghidi River is not within any known management plan or local designs returned a slight increase in the condition score (see **Table A4.2** below) however, this is not significant enough to result in a change in condition post-development.

**Table A4.2: Results of MoRPH 5 river survey condition assessment**

Index	Scores
Positive Index Average	2.6851148
Negative Index Average	-1.7557124
Preliminary Score (Positive Index + Negative Index)	0.929402
River Type	Type A - 1.3793104
Condition Score (Preliminary Score + River Type)	2.308713

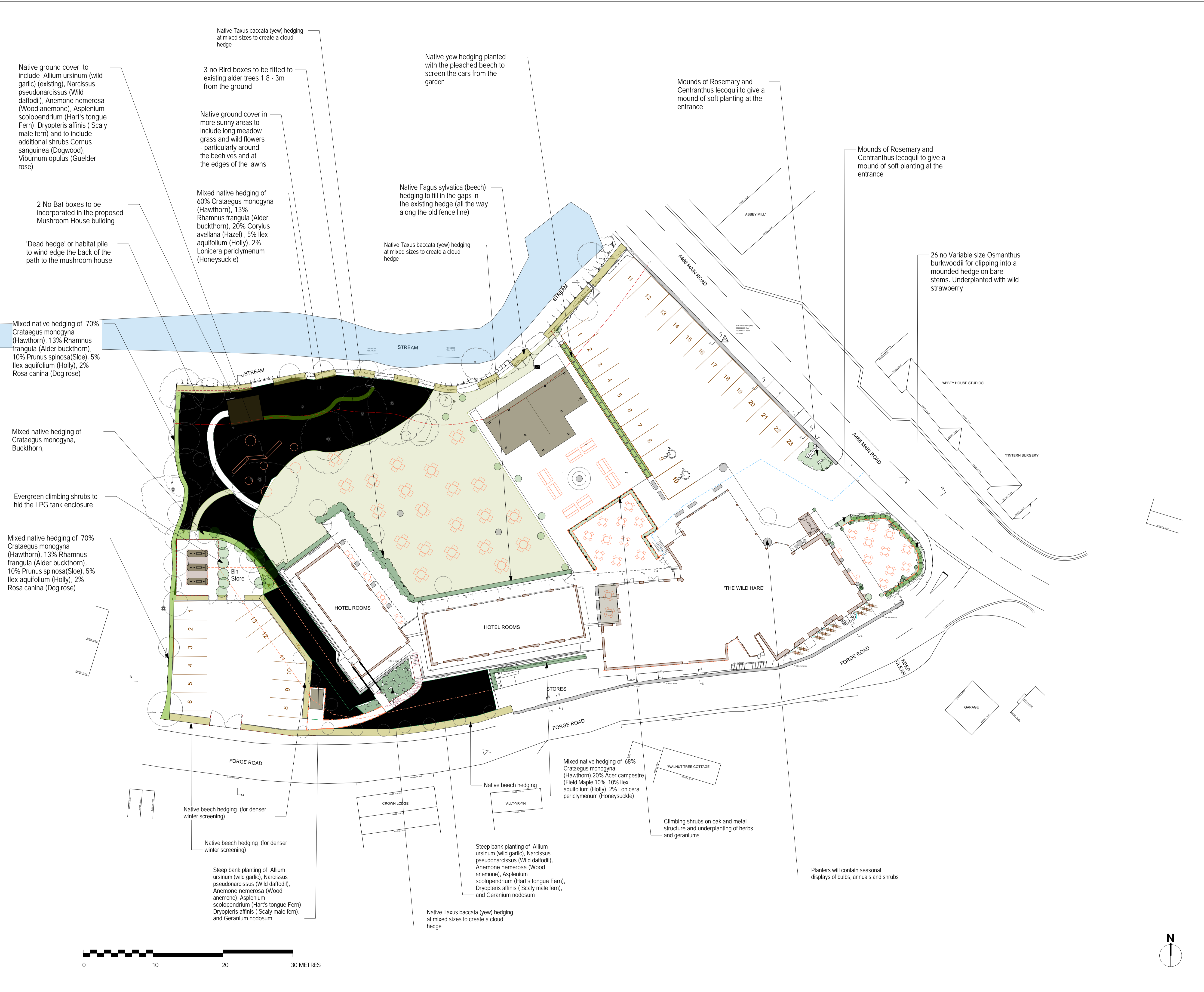
Further gains may be possible if a river management plan designed to remove all invasive species Himalayan balsam and Japanese knotweed from the river, its banks and the 10 m riparian zone.



# Appendix 5: Site Proposals







**General Notes**  
 All dimensions to be checked on site prior to proceeding. Do not scale from drawing. Any discrepancies to be reported to the Designer by the Contractor before proceeding. Sizes of dimensions to any structural elements are indicative only. This drawing to be read in conjunction with all relevant Designer's drawings, specifications and other Consultant's information.

No.	Date	By	Revision Notes
P1	21.3.24	KR	Revised Design detail

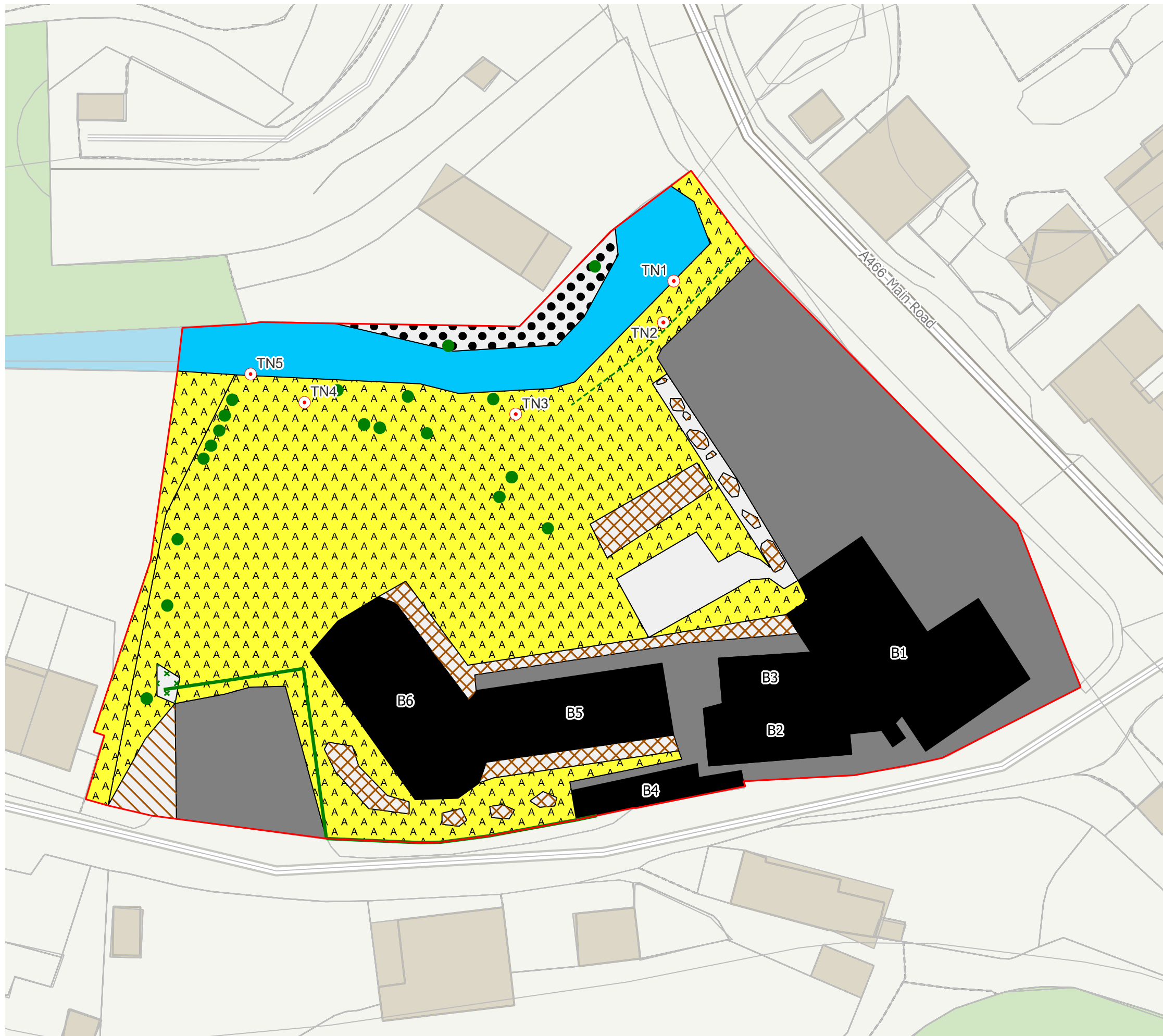
Design Firm		<b>JJB Gardens</b>	
Client		Tintern Propco Limited	
Project Title		<b>THE WILD HARE RENOVATION</b>	
Sheet Title		<b>Soft Planting</b>	
Drawn By	KR	Scale	1:250
Reviewed By	JJB	TWH-JJB-LD-GF-DR-L-0112	
Date	21/03/2024		
CAD File Name	TWH	Revision	P1

## Plans:














**Plan 1: Habitat Features Plan 15104/P01a**

**Plan 2: Bat Surveys Plan 15104/P02**





### Legend

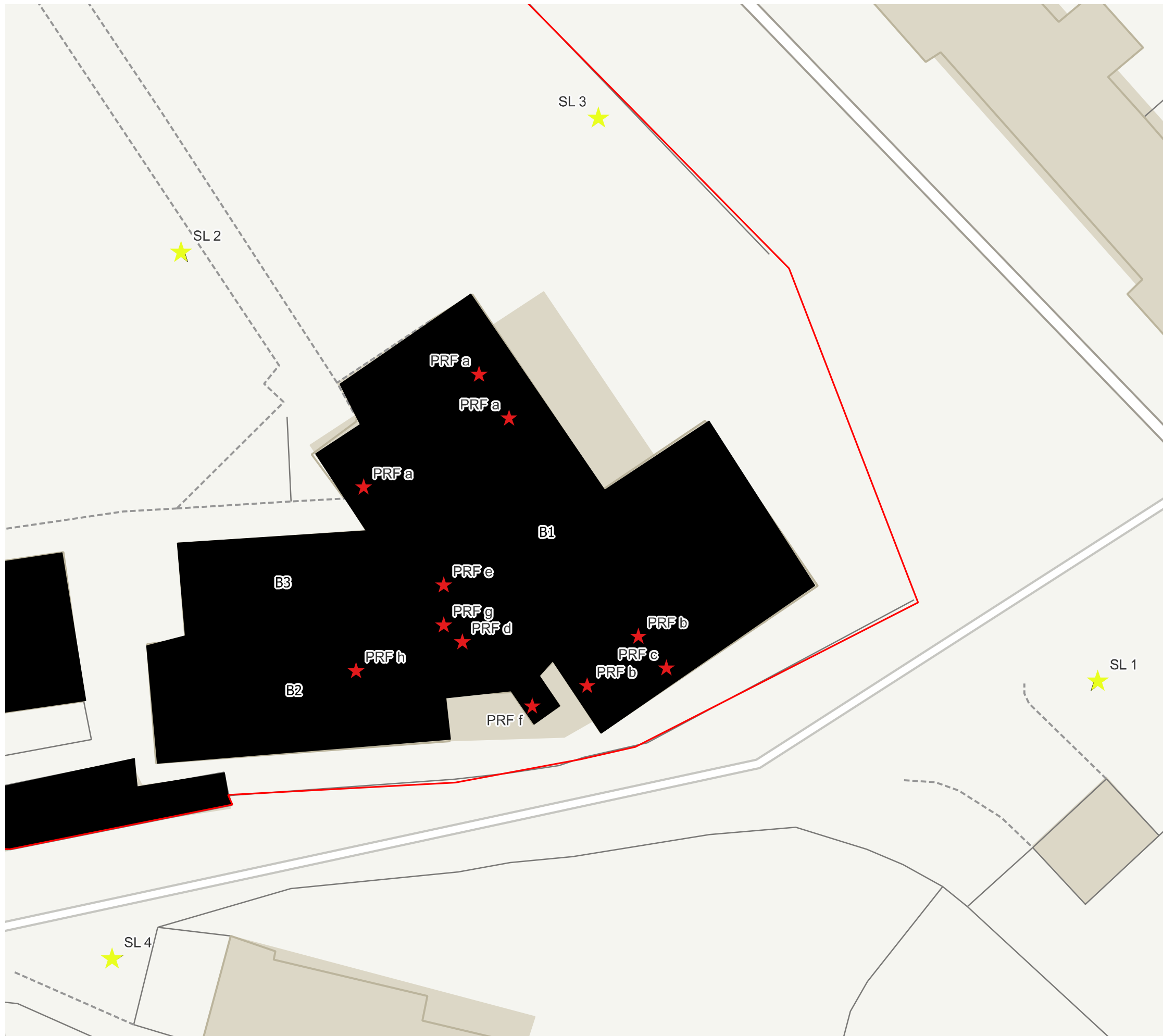
-  Site Boundary
-  Buildings
-  Amenity grassland
-  Artificial unvegetated unsealed surface
-  Bare ground
-  Introduced shrub
-  Hardstanding
-  Tall ruderal vegetation
-  Anghidi river
-  Beech hedge
-  Non-native hedge
-  Scattered trees
-  Target Notes
  - TN1 - Himalayan balsam
  - TN2 - Japanese knotweed
  - TN3 - Rhododendron
  - TN4 - Compost and ash pile
  - TN5 - Mammal run







Project	The Wild Hare, Tintern
Drawing Title	Habitats Features Plan
Scale	As Shown (Approximate)
Drawing No.	15104/P01a
Date	March 2024
Checked	VKC/LB



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### Legend

-  Indicative Redline Boundary
-  Buildings
-  Potential Roost Features
-  Surveyor Locations for Emergence/Re-entry Survey



Project	The Wild Hare, Tintern
Drawing Title	Bat Surveys Plan
Scale	As Shown (Approximate)
Drawing No.	15104/P02
Date	February 2023
Checked	VKC/LB



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