Penlanlas Farm, Abergavenny

Preliminary Ecological Appraisal

Prepared by:
The Environmental Dimension Partnership Ltd

On behalf of:
Edenstone Homes Ltd

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Executive Summary

S1 This Preliminary Ecological Appraisal has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Edenstone Homes Ltd (hereafter referred to as 'the Client') in relation to land at Penlanlas Farm, Abergavenny (hereafter referred to as 'the Study Site'). This Ecology Report provides a high-level assessment of the Study Site with respect to identifying key ecological constraints and opportunities to inform residential development. This report is to be submitted to Monmouthshire County Council (MCC) in support of the allocation of the Study Site within the emerging Local Development Plan.

S2 To establish the ecological baseline of the Study Site, a desk study and Extended Phase 1 Habitat survey were initially undertaken by EDP during August 2018 followed by further detailed surveys in respect of a botanical community, bats, dormouse (*Muscardinus avellanarius*) and common reptiles. For the purpose of this assessment, an update desk study, Extended Phase 1 Habitat survey and detailed botanical survey of the Study Site were undertaken during July 2021.

S3 Of particular pertinence, the Study Site is located within 2km of the River Usk Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI), designated for its aquatic habitats and associated protected species. As such, any development proposals which will result in an increase in residential units will have likely impacts upon the River Usk SAC associated with an increase in contaminated surface water runoff and/or increase in nutrient inputs from sewage water treatment works. It will be necessary for development to demonstrate nutrient neutrality which may be achieved by offsetting additional nutrient loadings through taking land out of agricultural production, strategic wetland creation and/or improving the efficiency of water treatment works to offset phosphate inputs across the River Usk catchment.

S4 Of further pertinence the Study Site is located within 310m of Sugar Loaf SAC/SSSI whilst Coed Y Cerrig SSSI and Blorenge SSSI are located within 2km of the Study Site. No direct impacts are anticipated on these designations given their distance and spatial separation from the Study Site. Indirect impact may, however, occur following an increase in recreational pressure from new housing and subsequent damage/degradation of qualifying habitats. The Study Site is also located within 8.7km of the Usk Bat Sites SAC designated for its population of lesser horseshoe (*Rhinolophus hipposideros*) bat. The Study Site is not, however, located within the identified Juvenile Sustenance Zone for lesser horseshoe (or greater horseshoe (*Rhinolophus ferrumequinum*) bats).

S5 With respect to non-statutory designations, field **F3** encompasses Old Hereford Road SINC. The majority of this land will be developed with some provision of open green space with the south-western and south-eastern corner of this field. Field **F3** is, however, characterised by arable land following previous changes in its management. As such, habitats across filed **F3** are considered to be of negligible importance.

S6 An initial Extended Phase 1 survey was undertaken by a suitably experienced and licensed EDP surveyor on 08 August 2018 combined with a botanical assessment on 21 July 2019 and further updated during July 2021. The Study Site encompasses agricultural farmland, predominantly comprising poor semi-improved grassland and an arable field. Such habitats are considered to be of negligible importance. Field boundaries are, however characterised by dense, intact and species-rich hedgerows. Such habitats are of value to protected/notable species including a local bat assemblage, badger, common reptiles and amphibians. Detailed survey effort in respect of dormouse and common reptile population, undertaken by EDP during 2019, confirmed absence of these species whilst agriculturally improved land is considered of limited importance to other species of note. Boundary hedgerows do, however, provide opportunities for protected and notable species and are further considered important in facilitating dispersal of wildlife across the wider landscape.

S7 A Concept Masterplan has, therefore, sought to retain hedgerow boundaries as far as possible albeit for the removal of sections at two locations to accommodate an access road and footpath links. There is, furthermore, the opportunity to strengthen retained hedgrow boundaries through infill planting and new hedgerow creation, replacing unvegetated fence lines where present along the peripheries of the Study Site. Also, inherent within the Illustrative Masterplan is the provision of open green space, with potential to accommodate new landscape planting and creation of species-rich habitats, enhancing biodiversity across the Study Site when compared to baseline conditions. It is, therefore, considered that there are no significant ‘in principle’ constraints to future development of the Study Site and that the site is capable of accommodating sufficient mitigation in respect of habitats and species present/potentially present onsite to comply with relevant planning policy and wildlife legislation.

Section 1
Introduction, Purpose and Context

1.1 This Preliminary Ecological Appraisal (PEA) has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Edenstone Homes Ltd (hereafter referred to as 'the Client'), in relation to land at Penlanlas Farm, Abergavenny (hereafter referred to as 'the Study Site'). This PEA provides a high-level assessment of the Study Site with respect to identifying key ecological constraints and opportunities to inform residential development. This report is to be submitted to Monmouthshire County Council (MCC) in support of the allocation of the Study Site within the emerging Local Development Plan (LDP).

1.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Cheltenham and Cardiff. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website www.edp-uk.co.uk.

1.3 This report has been prepared by Emily Williams, an experienced and competent Associate Ecologist with an eleven year service history spanning across the public and private sectors. Emily is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

1.4 This report has been prepared with reference to CIEEM'S Guidelines for Preliminary Ecological Appraisal[1].

Background and Scope

1.5 The purpose of this assessment is to identify the Study Site's 'in principle' suitability for development and thus inform its potential for inclusion as a candidate site for allocation within the emerging Local Development Plan for Monmouthshire. To this end, this report describes the current ecological interest within and around the Study Site, which has been identified through standard desk and field-based investigations.

1.6 An Ecological Assessment of the Study Site was initially undertaken by EDP during 2019 to inform a future planning application for residential development comprising 137 mixed dwellings with associated access and green infrastructure. To identify potential constraints and opportunities for residential development and thus inform initial pre-application a consultation, an ecological assessment included a desk study, Extended Phase 1 Habitat survey and further detailed surveys in respect of botanical communities, bats, dormouse (*Muscardinus avellanarius*) and common reptiles.

[1] CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

1.7 Notwithstanding the above and given the purpose of this Preliminary Ecological Appraisal, adopting the required approach to the ecological assessment of candidate sites as specified within recently published guidance issued by Monmouthshire County Council[2], this report is based upon a desk study data, the findings of the Extended Phase 1 Habitat survey and detailed botanical assessment undertaken by EDP in 2019, and update desk and field-based assessments undertaken in 2021. Reference is also made to the findings of all other detailed ecological surveys previously completed for the Study Site, where pertinent.

Site Context

1.8 The Study Site is centred approximately at Ordnance Survey Grid Reference (OSGR) SO 303 159. The local planning authority is MCC. The location and extents of the Study Site are illustrated at **Plan EDP 1**. The Study Site measures approximately 4.8 hectares (ha) and is located on the north-western edge of the town of Abergavenny. The Study Site comprises two grassland fields and a single arable field each bounded a network of mature native hedgerows.

1.9 The southern and eastern boundaries of the Study Site are delineated by the residential housing associated with the settlement edge of Abergavenny. Arable land lies adjacent to the northern boundary whilst Old Hereford Road delineates the western boundary of the Study Site. The principal ecological features within the Study Site (identified through site survey) are illustrated on **Plan EDP 1**.

Scope of the Report

1.10 This Preliminary Ecological Appraisal describes the current ecological interest within and around the Study Site, which has been identified through standard field-based investigations. The remainder of this report is structured as follows:

- **Section 2** summarises the methodology employed in updating baseline ecological conditions within and around the Study Site (with further details provided within Appendices and on Plans where appropriate);

- **Section 3** summarises the baseline ecological conditions (with further details also provided within Appendices and on Plans where appropriate) and identifies and any pertinent ecological features/receptors that require further consideration. This section further provides an evaluation of the biodiversity value of the Study Site with reference to guidance provided by MCC and considers the potential of the Study Site in providing ecological connectivity; and

- **Section 4** briefly summarises the findings that are relevant to inform its potential to support development and conclusions of initial survey findings.

[2] Monmouth County Council (2021). Local Development Plan Ecological Site Assessments in Monmouthshire 2021. Available at: https://www.monmouthshire.gov.uk/app/uploads/2020/12/LDP-Ecological-Site-Assessments-Methodology-of-CS-Methodology-Dec20.pdf. [Accessed on 14 July 2021]

Section 2
Methodology (Baseline Investigations)

2.1 This section of the Preliminary Ecological Appraisal summarises the methodologies employed in determining the baseline ecological conditions within and around the Study Site. The assessment has been undertaken by appropriately qualified ecologists using relevant best practice methodologies wherever possible. Reasons for any departure from best practice methodology are given and normally relate to the timing of EDP's commission and/or the availability of access to parts of the Study Site or wider study area. Full details of the techniques and processes adopted are, where appropriate, provided within appendices and on plans to the rear of this report.

Desk Study

2.2 The desk study is an important element of undertaking an initial ecological appraisal of a site proposed for development, enabling the initial collation and review of contextual information, such as designated sites, together with known records of protected and priority species[3].

2.3 The desk study involved collating biodiversity information from the following sources:

- South East Wales Biodiversity Records Centre (SEWBReC) in partnership with the Biodiversity Information Service for Powys and Brecon Beacons National Park (BIS); and
- Multi-Agency Geographic Information for the Countryside (MAGIC) website[4].

2.4 The desk study was initially undertaken during August 2018 and updated during July 2021 and involved obtaining the following information:

- International statutory designations (10km radius around site);
- National statutory designations (5km);
- Non-statutory Local sites (2km);
- Annex II bat species[5] records (6km);
- All other protected/notable species records (2km);

[3] Species considered of key significance to sustain and improve biodiversity in Wales, as defined under Section 7 of Part 1 of the Environment (Wales) Act 2016.
[4] www.magic.gov.uk
[5] Bat species listed in Annex II of the EC Habitats Directive, namely Greater horseshoe, Lesser horseshoe, Barbastelle and Bechstein's bats

- Ancient Woodland (2km); and
- Priority Habitats (500m).

2.5 These search areas are considered sufficient to cover the potential Zones of Influence (ZoI)[6] of the proposed development in relation to designated sites, habitats and species.

2.6 During the desk study assessment, a review of the following information was also undertaken:

- Current and historical planning applications within the last 5 years (publicly available for review) for development sites within circa 1km of the Study Site;
- The Monmouthshire Ecological Connectivity Assessment;[7] and
- Any other existing assessments of the Study Site undertaken by MCC or representatives of MCC.

Extended Phase 1 Survey

2.7 The survey technique adopted for the initial habitat assessment was at a level intermediate between a standard Phase 1 survey technique[8], based on habitat mapping and description, and a Phase 2 survey, based on detailed habitat and species surveys. The survey technique is commonly known as an Extended Phase 1 survey. This level of survey does not aim to compile a complete floral and faunal inventory for the site.

2.8 The level of survey involves identifying and mapping the principal habitat types and identifying the dominant plant species present in each principal habitat type. In addition, any actual or potential protected species or species of principal importance are identified and scoped.

2.9 An Extended Phase 1 survey of the Study Site was completed by a suitably experienced ecologist from EDP on 08 August 2018 and updated on 19 July 2021.

Limitations

2.10 August and July are considered to be within the optimal period for undertaking an Extended Phase 1 survey. As such, surveys are not considered to have been limited by seasonal or climatic factors.

[6] Zone of Influence - the areas and resources that may be affected by the proposed development
[7] Gwent Wildlife Trust (2010). Ecological Connectivity Assessment of Settlements in Monmouthshire Report. Available at: https://www.monmouthshire.gov.uk/planning-policy/candidate-sites/ecological-site-assessments-of-candidate-sites/. [Accessed on 13 September 2019]
[8] Joint Nature Conservation Council (2004) *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit* (reprinted with minor corrections for original Nature Conservancy Council publication).

Detailed Botanical Survey

2.11 In accordance with the methodology established by MCC for assessment of LDP Candidate Sites and following pre-application consultation with MCC Ecologist (ref: DM/2018/01770) in relation to a proposed planning submission, a botanical survey of the Study Site was undertaken on 21 July 2019 to assess the Study Site's botanical value and to determine whether it meets qualifying criteria for status as a Site of Importance for Nature Conservation (SINC).

2.12 The survey adopted a combination of National Vegetation Classification (NVC) and DAFOR methodologies. Field **F2** and **F3** comprising the Study Site were walked and distinct visual differences between sward types within each grassland field were provisionally identified as distinct communities/sub-communities. Where possible five random quadrats were taken within representative parts of those distinct communities/sub-communities.

2.13 Overall, ten quadrats were undertaken across field **F2**, subdivided across species-rich and comparative species-poor areas. Seven quadrats were undertaken across field **F3**. Of these, five were located across uniform areas of species-poor grassland whilst the remaining two were undertaken across a small area of comparatively species-rich grassland.

2.14 Quadrat data was analysed using the Modular Analysis of Vegetation Information Systems (MAVIS) software. MAVIS allows for an objective and statistically valid identification of vegetation and provides a range of percentage-based levels of affinity to communities/sub-communities with regard to the sampled sward.

2.15 With respect to field **F1** comprising arable land, DAFOR methodology[9] was adopted whereby all vascular plant species (and bryophytes where identifiable) were identified to the following abundance levels: D=Dominant; A = Abundant; F= Frequent; O = Occasional; and R = Rare. Where a species had a particularly localised status within a field it was noted with the prefix L (e.g. rare in the wider field but locally occasional = R/LO). Each species in Fields **F2** and **F3** were also recorded with reference DAFOR level to allow for a robust assessment of the botanical value of grassland habitat across the Study Site.

2.16 The botanical value of those habitats recorded were assessed against the criteria set out for habitat types within the Guidelines for the Selection of Wildlife Sites in South Wales by the South Wales Wildlife Sites Partnership (Gwent Wildlife Trust, 2004); this document is hereafter referred to as the GSWSSW.

2.17 The survey was conducted by Phil Quinn MCIEEM – an ecologist who has over thirty years' experience of botanical survey across the UK, primarily in western England and south Wales.

[9] DAFOR botanical survey technique – whereby occurrence of a species is noted to be Dominant, Abundant, Frequent, Occasional, or Rare

Limitations

2.18 June is considered to be within the optimal period for undertaking a botanical assessment of grassland habitat, although early flowering species may not be present at this time. Given the nature of habitats supported by the Study Site comprising mainly agricultural land this was not considered a constraint to the survey.

Detailed (Phase 2) Surveys

2.19 In addition to an Extended Phase 1 and DAFOR/NVC survey, further detailed assessments were undertaken in relation to hedgerows, bats and badger to establish the initial baseline and further inform potential ecological constraints in relation to future development of the Study Site, as detailed further below.

Hedgerows

2.20 An assessment of the hedgerow network onsite was undertaken to determine their importance following the Wildlife and Landscape criteria provided in Part II of *Schedule 1 of the Hedgerows Regulations 1997.* The assessment was initially completed by a suitably qualified ecologist on 08 August 2018 and updated on 19 July 2021.

2.21 The aims of the hedgerow assessment were to:

- Determine the extent of hedgerows qualifying as 'important' under the Wildlife and Landscape criteria of the Hedgerows Regulations (1997); and

- Identify hedgerows which, whilst not qualifying as 'important' under the ecological criteria of the Hedgerow Regulations (1997) have ecological value in terms of species diversity or as potential wildlife corridors.

2.22 A total of 9 hedgerows (**H1**-**H9**, as illustrated on **Plan EDP 1**) located within the Study Site were surveyed, these hedgerows qualifying for assessment by being assessed to be greater than 30 years of age, being located adjacent to land in agricultural/horticultural use and exceeding 20m in length or by being connected at both ends to another hedgerow of any length.

2.23 The middle 30m of all hedgerows up to 100m in length were surveyed, whilst two 30m sections were surveyed for hedgerows up to 200m in length where access was possible. For hedgerows exceeding 200m in length, three 30m sections were surveyed.

2.24 Hedgerows are considered 'important' where the hedgerow is: referred to in a record held by a biological records centre as containing protected plants (within 10 years) or birds and animals (within five years); contain species listed in Schedules 5 (animals) and 8 (plants) of the Wildlife and Countryside Act 1981 (as amended); birds categorised as declining breeders[10], or any species categorised as 'endangered', 'extinct', 'rare' or

[10] Bladwell S, Noble DG, Taylor R, Cryer J, Galliford H, Hayhow DB, Kirby W, Smith D, Vanstone A, Wotton SR (2018) *The state of birds in Wales 2018*. The RSPB, BTO, NRW and WOS. RSPB Cymru, Cardiff.

'vulnerable' by any of the British Red Data Books; or contain one of the following per average 30m section surveyed:

- Seven Schedule 3 species;
- Six Schedule 3 species and three listed features (see below);
- Schedule 3 species, including one of the following: black poplar (*Populus nigra* subsp. *betulifolia*), large-leaved lime (*Tilia platyphyllos*), small-leaved lime (*Tilia cordata*) or wild service-tree (*Sorbus torminalis*);
- Five Schedule 3 species and four listed features; or
- Four Schedule 3 species, two listed features and lying adjacent to a bridleway or footpath.

2.25 Listed features include:

- A bank or wall which supports the hedgerow along at least half of its length;
- Gaps which together do not exceed 10% of the length of the hedgerow;
- At least one standard tree per 50m of hedge;
- At least three Schedule 2 woodland species within the hedgerow;
- A ditch along at least one half of the length of the hedgerow;
- Connections scoring 4 points or more (1 point per connection of the hedgerow with another and 2 points per connection of the hedgerow to a pond or broad-leaved woodland); or
- A parallel hedge within 15m of the hedgerow.

2.26 It is recognised that, with reference to the Hedgerow Regulations 1997, certain species of bird or animals listed in the Wildlife and Countryside Act (as amended) or by the Joint Nature Conservation Committee (JNCC), that could result in a hedgerow being recognised as 'important', may have gone unrecorded due to the timing and nature of the survey. Indeed, the use of the hedgerow by such species may be seasonal or at particular periods during the day.

Limitations

2.27 The optimum time for undertaking hedgerow assessments is between April and September when species pre-dominantly associated with hedgerows are in flower. As such, the survey is not considered to be constrained by seasonal or climatic factors.

Bats

Investigations of Bat Roosting – Trees

2.28 During the Extended Phase 1 Habitat survey on 08 August 2018, suitable standards were subject to a ground level visual assessment with reference to current best practice guidance[11]. The tree survey involved a ground-based visual assessment of trees for the presence of, or potential to support, roosting bats. The survey was subsequently updated on 19 July 2021. During each survey the trees were searched as thoroughly as possible from ground level, with all elevations covered where accessibility allowed. The trees assessed are shown on **Plan EDP 1**.

2.29 Suitable features for roosting bats sought for during the assessment included:

- Loss/peeling/fissured bark;
- Natural holes e.g. rot holes and holes from fallen limbs;
- Woodpecker holes;
- Cracks/splits or hollow tree trunks/limbs; and
- Thick-stemmed ivy.

2.30 Signs of roosting bats sought for included:

- Bat/s roosting *in-situ*;
- Bat droppings within or beneath a feature;
- Staining around or beneath a feature;
- Oily marks (staining) around roost access points;
- Audible squeaking from the roost;
- Large/regularly used roosts or regularly used sites may produce an odour; and
- Flies around the roost, attracted by the smell of guano.

2.31 Based upon the results of the visual assessment and features/evidence identified, the following ratings for trees were used during the assessment:

[11] Bat Conservation Trust (2016) Bat *Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition.* Bat Conservation Trust, London.

- **Known or confirmed roost** – European Protected Species (EPS) licence required for works to tree to be completed lawfully;

- **High potential** – Tree supports one or more features that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time;

- **Moderate potential** – Tree supports one or more features that could be used by bats but are unlikely to support a roost type of high conservation status;

- **Low potential** – Tree supports one or more features that could be used by individual bats opportunistically, or is of sufficient size and age to contain such features; and

- **Negligible potential** – Negligible features likely to support roosting bats.

Limitations

2.32 Visual assessments of trees for roosting bats can be undertaken at any time of year and this assessment was, therefore, not limited by seasonal or climatic factors.

2.33 Bats are mobile animals and will move between a series of different roost sites, frequently establishing and occupying new roost sites depending on seasonal requirements and resources available locally. This survey, therefore, only provides a snapshot of the conditions present at the Study Site at the time of survey.

Badger

2.34 Badger activity within the Study Site was initially recorded during the Extended Phase 1 survey on 08 August 2018 whilst an update badger survey was undertaken by a suitability qualified ecologist on 19 July 2021. During the update survey, any signs of badger activity such as holes, latrines, trails, snuffle holes and hairs on fencing or vegetation were recorded. Where holes of a size and shape consistent with badgers were identified, the following signs of badger activity were searched for in order to determine whether they were currently in active use:

- Fresh spoil outside entrances;

- Old bedding material (typically dried grass) outside entrances;

- Holes being cleared of leaf litter;

- Badger guard hairs; and

- Fresh tracks leading to/from the holes.

Limitations

2.35 Badger surveys can be undertaken at any time of year and are, therefore, not limited by seasonal or climatic factors.

Section 3
Results (Baseline Conditions)

3.1 This section of the Preliminary Ecological Appraisal summarises the baseline ecological conditions determined through the course of desk and field-based investigations described in **Section 2**. In particular, this section identifies and evaluates those ecological features/receptors that lie within the Study Site's potential ZoI and which are pertinent in the context of potential allocation of the Study Site. Further technical details are, where appropriate, provided within Appendices and on Plans to the rear of this report.

Designated Sites

3.2 Information regarding designated sites was obtained during the desk study from the MAGIC website and local records centre (SEWBReC). Statutory designations (those receiving legal protection) and non-statutory designations (those receiving planning policy protection only) are discussed in turn below.

Statutory Designations

3.3 Statutory designations represent the most significant ecological receptors, being of recognised importance at an international and/or national level. International designations include Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar Sites. National designations include Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs).

3.4 No part of the Study Site is covered by any statutory designations. However, there are several such designations within the Study Site's potential zone of influence, as summarised below in **Table EDP 3.1** and illustrated at **Appendix EDP 1**.

Table EDP 3.1: Statutory designations within the Study Site's potential zone of influence.

Site Name	Approx. Distance from Study Site	Interest Feature(s)
International		
Sugar Loaf Woodlands SAC/SSSI	310m north-west	Ancient woodland coppice composed of oak (*Quercus sp.*), alder (*Alnus glutinosa*) and beech (*Fagus sylvatica*). Bilberry (*Vaccinium myrtillus*) and wavy hair-grass (*Deschampsia flexuosa*) presence with herb, fen and bryophyte communities on lower flushed slopes. Condition status is unfavourable.
River Usk (Lower Usk) SAC/SSSI	2km south	Wildlfie corridor and habitat for a range of breeding birds, otter (*Lutra lutra*), fish, water vole (*Arvicola amphibius*) and bats including lesser horseshoe bat (*Rhinolophus hipposideros*) with localised populations of Atlantic stream crayfish (*Austropotambius pallipes*), freshwater pearl mussel
River Usk (Upper Usk) SAC/SSSI	4.4km west	

Site Name	Approx. Distance from Study Site	Interest Feature(s)
		(*Margaritifera margaritifera*) and several rare/scarce flowering plants, lichen, mosses and bryophytes. Condition status is favourable.
Cwm Clydach Woodlands SAC	7.9km south-west	Beech forest on neutral to rich and acidic soils. Mixed structure of trees with mature oak, glades and diverse shrub/ground layer. Mosses, fungi, orchids and sedges present. Condition status is favourable.
Usk Bat Sites SAC	8.7km west	Composed of four SSSIs with Annex I habitats including mixed woodland, blanket bog and dry heath. Condition status is largely unfavourable and in decline with Annex I features such as crevice growing plants, lesser horseshoe bat and cave presence as favourable.
National		
Coed y Cerrig SSSI	2km north	Area of wet woodland with open sedge swamp glades and transitions to ash (*Fraxinus excelsior*), oak and beech woodland. The site supports the only Gwent population of the declining marsh fern (*Thelypteris palustris*). Condition status is favourable.
Coed-y-Person SSSI	3.1km south-west	Ancient semi-natural woodland with beech and rich ground flora including wood melic (*Melica uniflora*) and moschatel (*Adoxa moschatellina*). Condition status is unknown.
Blorenge SSSI	3.8km south-west	Dry and wet heaths with blanket bog and broadleaved woodland. Associated wildlife and flora with locally important populations of breeding birds including red grouse (*Lagopus lagopus scotia*), fern, fungi and bryophytes. Condition status is largely unfavourable but recovering.

Non-Statutory Designations

3.5 Non-statutory designations are also commonly referred to in planning policies as 'local sites', although in fact these designations are typically considered to be importance at a county level. In Monmouthshire, such designations are named Sites of Interest for Nature Conservation (SINCs).

3.6 Additional designated sites which should be considered at this level include Local Nature Reserves (LNRs) and Ancient Semi-natural Woodland (ASNW) where these are not covered by other designations.

3.7 Of particular pertinence in this instance, field **F1** comprising the Study Site is designated as a SINC – Land adjoining Old Hereford Road. There are, additionally, a number of such designations within the Study Site's potential zone of influence, as summarised in **Table EDP 3.2** below and illustrated at **Plan EDP 2**.

Table EDP 3.2: Non-statutory designations within the Study Site's potential zone of influence.

SINC Designation	Approx. Distance from Site	Interest feature(s)
Land adjoining Old Hereford Road	Overlaps with Study Site	Neutral grassland meadow with public access bound by species-rich hedgerows. Species recorded at the time of designation include small-leaved lime (*Tilia cordata*) and bulbous buttercup (*Ranunculus bulbosus*).
River Gavenni	620m east	Tributary of the River Usk with white clawed crayfish presence and notable bird, invertebrate, fish and mammal presence.
Ross Road	715m east	Adjacent to River Gavenni with woodland, scrub and species-rich grassland.
Maindiff Court Hospital	980m east	Neutral grassland with mature trees including oak and yew (*Taxus baccata*). Some herbaceous species noted. Mature oak line with rich ground flora.
Orchard House	1.7km south-west	Neutral grazed grassland with species-rich hedgerows and herbaceous species. Veteran trees noted within orchard.
Neville Hall Hospital	1.8km south-west	Two ponds with amenity neutral grassland and mature trees. Connects to River Usk.

3.8 Ancient woodland habitats within 2km of the Study Site are illustrated at **Plan EDP 2**, the nearest of which is located circa 200m to the west beyond Old Hereford Road.

Other Pertinent Information

3.9 As part of the desk study assessment, EDP undertook a review of current and historical planning applications for pertinent/large developments within the last five years (where publicly available for review) within circa 1km of the Study Site, to provide additional contextual information on ecological features potentially present within the wider landscape. A summary of the pertinent findings is provided within **Table EDP 3.3** below.

Table EDP 3.3: Non-statutory designations within the Study Site's potential zone of influence.

Planning Reference and Details	Pertinent Findings
DC/2014/01360 and associated condition discharges: Land between Deri Farm Bungalow and Llantilio Pertholey Church In Wales Primary School – Construction of 250 residential units with associated demolition and infrastructure works. Application approved.	Presence of white-clawed crayfish assumed in River Gavenni (SINC) adjacent to site. No evidence of European Protected Species (EPS) identified during detailed surveys between 2013 and 2014 with the exception of a lesser horseshoe bat night roost in association with a barn in 2013 and during updates surveys in 2017. Otter spraints identified in association with the River Gavenni during 2017.

Planning Reference and Details	Pertinent Findings
DM/2018/00834: Land West of Glebe Cottage, Llantilio School Road, Llantilio – Proposed 100% affordable residential development (12 no. dwellings) with associated public open space, landscaping and highway infrastructure and other ancillary works and activities. Application Approved.	Survey undertaken during 2017 identified otter sprints in association with River Gsvenni adjacent to site as well as a potential holt. No evidence of dormouse, amphibians and reptiles. Suitable habitat for a bat assemblage.
DM/2018/01858: Land North of St Teilos Church, Hereford Road, Llantilio – Residential development of 11 units. Application refused.	Survey undertaken during 2017 identified suitable habitat for otter, water vole and a bat assemblage and a low population of grass snake (*Natrix natrix*) whilst survey of offsite ponds during 2018 identified a great crested newt (*Triturus cristatus*) population.
DC/2015/01585 and associated condition discharge: The Hill Pen-y-Pound, Abergavenny – Conversion of original house to 6 apartments; conversion of coach houses and stables into two separate residential units. Demolition of 197's extension block, erection of 36 new build residential units (including 10 affordable retirement apartments and 2 affordable retirement bungalows. Application approved.	Ecological surveys undertaken during 2015 identified a summer day roost for soprano pipistrelle (*Pipistrellus pygmaeus*) within an onsite building in addition to several tree roosts supporting low numbers of common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle, brown log-eared (*Plecotus auritus*) and noctule (*Nyctalus noctula*) bats whilst woodland onsite provides suitable habitat for a bat assemblage more generally. No evidence of badger or dormouse were identified during survey effort.

Existing Ecological Assessments

3.10 An ecological assessment of field **F1** (CS/0227) comprising the Study Site was previously undertaken by Gwent Ecology during 2010 to inform a previous Local Development Plan for Monmouth County Council. At the time of survey the survey area was not designated as a SINC although its potential for inclusion was identified by virtue of its hedgerow network and neutral grassland. Grassland habitat was considered to be of moderate biodiversity value whilst the hedgerow network was assessed as being of high biodiversity value.

Monmouthshire Ecological Connectivity Assessment

3.11 The Ecological Connectivity Assessment undertaken by Gwent Wildlife Trust in 2010[12] identifies routes of habitat connectivity predominantly along the eastern and southern boundaries of the town of Abergavenny as well as considers connectivity to primary habitat for dormouse, otter and great crested newt specifically.

3.12 An assessment identified minor woodland and hedgerow links between Penlanlas Farm and the Gavenny River which follows north to south along the eastern boundary of Abergavenny almost parallel to the A465 link road. The A465 link road and associated

[12] Gwent Wildlife Trust (2010). Ecological Connectivity Assessment of Settlements in Monmouthshire Report. Available at: https://www.monmouthshire.gov.uk/planning-policy/candidate-sites/ecological-site-assessments-of-candidate-sites/. [Accessed on 13 September 2019]

roadside planting provides an additional linear feature for dispersal of wildlife north to south. Of further pertinence, the River Usk flows to the south of Abergavenny although is largely disconnected from the Study Site by existing urban development. Patches of woodland and agricultural pasture along at the outskirts of the town do, however, provide potential stepping stones for dispersal of wildlife across the wider landscape, particularly to the north and east of the Study Site, In particular, the Sugar Loaf Woodlands ASNW SAC and SSSI lies some 310m north-west of the Study Site.

3.13 Field surveys undertaken by EDP during 2018, 2019 and 2021 have identified a native hedgerow network onsite, with connectivity to offsite woodland and hedgerow habitat. Potential dispersal of wildlife to the south and east is, however, limited by existing residential development with fence lines fragmented external hedgerow boundaries. The boundary between fields **F2** and **F3** is, furthermore defined by an unvegetated fence line. As such, there is the potential to enhance connectivity across the Study Site through new habitat creation, replacing fence lines with new planting where possible, combined with the enhancement of a retained hedgerow network during development of the Study Site.

Habitats

3.14 Information on habitats within and around the Study Site was obtained during the desk study, Phase 1 Habitat survey completed on 08 August 2018 and 19 July 2021 and detailed botanical survey during July 2019. The distribution of different habitat types within and adjacent to the Study Site is illustrated at **Plan EDP 1** and further described below. The detailed results of the botanical survey are provided at **Appendix EDP 2**. Illustrative photographs are provided at **Appendix EDP 3**.

Arable Land

3.15 During 2019, field **F1** was characterised by a sparse crop of fodder beet with much localised Yorkshire fog (*Holcus lunatus*). Approximately 60% of the field's surface comprises bare soil. The field previously supported well-established grassland. Very small quantities of creeping thistle (*Cirsium arvense*), shepherd's purse (*Capsella bursa-pastoralis*), perennial rye-grass (Lolium perenne), scarlet pimpernel (*Anagalis arvensis*), broad-leaved dock (*Rumex obtusifolius*), annual meadow-grass (*Poa annua*), and scentless mayweed (*Tripleurospermum inodorum*) are also present.

3.16 Field margins comprised narrow strips of relict grassland likely representative of the sward that was present prior to the field's conversion from grassland to arable crop. Here, abundant/frequent sweet vernal grass (*Anthoxanthum ooratum*), false oat-grass (*Arrhenatherum elatius*), common bent (*Agrostis capillaris*), perennial rye-grass (*Lolium perenne*), Yorkshire fog and rough meadow-grass (*Poa trivalis*) was present. Herbs were poorly represented in these grassland strips but included rare common ragwort (Senecio jacobaea), white clover (*Trifolium repens*), creeping cinquefoil (*Potentilla reptans*), ribwort plantain (*Plantago lanceolata*) and hogweed (*Heracleum sphondylium*).

3.17 Following an update survey in July 2021, the field remains in use as arable land albeit supporting ley grassland dominated by perennial rye-grass. Yorkshire fog and creeping

thistle is locally abundant whilst broadleaved dock, spear thistle (*Cirsium vulgare*), and dandelion (*Taxacum officinalis*) occurs occasionally and burdock (*Arctium sp.*) rarely. Common knapweed (*Centaurea nigra*) was also recorded rarely within grassland margins and at times extending further into the field. Small areas of disturbed ground were colonised by mayweed and pineapple weed.

Semi-improved Grassland

3.18 Field **F2** is a small field comprising grassland pasture which is grazed by cattle. The eastern half of field **F2**, on a slight slope, is not particularly species-rich but does contain some common bird's-foot trefoil (*Lotus corniculatus*) and selfheal (*Prunella vulgaris*) as well as a large amount of common cat's-ear (*Hypochaeris radicata*). White clover (*Trifolium repens*) is common and there is also some red clover (*Trifolium pratense*). The predominant grass species are: sweet vernal grass, perennial rye-grass, common bent and Yorkshire fog. Crested dog's-tail (*Cynosurus cristatus*) is occasional and there is also some rough meadow-grass and red fescue (*Festuca rubra*). This community is considered to resemble an MG6b: *Lolium perenne-Cynosurus cristatus* grassland *Anthoxanthum odoratum* sub-community.

3.19 The remainder of field **F2** is on more level ground and supports a less diverse grassland sward which is dominated by perennial rye-grass, sweet vernal grass, Yorkshire fog and common bent. Herbs are uncommon. Cattle appear to preferentially dung in this part of the field and there is much creeping thistle here. This sward is representative of poor semi-improved grassland This community has closest affinity to an MG6b sub-community.

3.20 Field **F3** is slightly smaller in size than field **F2** and has a less pronounced aspect. This field was formerly separated from **F2** by a post and wire fence which had been removed some time previous to an update survey in field **F3**. The grassland sward in field **F3** has a strong affinity to the species-poor sward present in field **F2** and is dominated by the same four grass species with poor diversity of herb species. This community has affinity with an MG6b sub-community.

3.21 The south-eastern edge of field **F3** has a slightly more pronounced aspect than the rest of the field and a more diverse semi-improved neutral grassland sward representative of an MG6b sub-community.

3.22 An update survey during July 2021 confirmed no change in the ecological baseline for these fields.

Native Hedgerows

3.23 The boundaries of the Study Site and internal fields are largely represented by mature hedgerows (**H1** - **H9**).

3.24 **H1** is a species-poor hedgerow albeit short in extent and replaced with an unvegetated fence line further south. The hedgrow is dominated by blackthorn (*Prunus spinosa*) along with occurrences of hazel (*Corylus avellana*) and bramble (*Rubus fruticosus* agg).

3.25 **H2** is a tall and unmanaged species-rich hedgerow with a steep drop on its eastern side. The height of the hedgerow on the field side is variable but averages at approximately 9m in height; its width varies from approximately 1.5m in the south to approximately 4m in the north. The hedgerow is characterised by several young ash standards with a single semi-mature hybrid oak (*Quercus x rosacea*). Blackthorn, hazel, elder (*Sambucus nigra*) and bramble are common whilst wych elm (*Ulmus glabra*), field maple (*Acer campestre*) and hawthorn (*Crataegus monogyna*) are also present. The outer base of the hedgerow comprises dense bramble, nettle (*Urtica dioica*), and tall herbs. A ground flora community is also presented by herb bennet (*Herba benedicta*), cuckoo pint (*Arum maculatum*) and herb Robert (*Geranium robertianum*). A public footpath runs alongside the hedgerow. Hedgerow **H2** qualifies a 'Important' in accordance with the wildlife criteria of the Hedgerow Regulations.

3.26 **H3** delineates the northern boundary of Field **F2** and is located atop a low bank, with a height varying between 2m and 15m but with most of it between 10m and 15m tall; its width is between 2.5m and 3m and there is a sheep fence on the southern side. A species-rich hedgerow **H3** is dominated by hazel and hawthorn (25% and 23% respectively of the total hedgrow resources respectively). Holly (*Ilex aquinlimun*) and blackthorn are also common; there are numerous semi-mature ash standards. A ground flora community is, however relatively limited with greater stitchwort frequent. Hedgerow **H3** qualifies a 'Important' in accordance with the wildlife criteria of the Hedgerow Regulations.

3.27 **H4** is a species-rich hedgrow delineating the western boundary of field **F3** adjacent to a road. There is a steep 2-3m drop on its northern/western side but flush with the field level on its other side. The hedge is of a relatively uniform height – 1.7 to 2m and is approximately 1.5 - 2m wide. It appears to have some irregular management (occasional flailing). No standard trees are present. Hazel dominates here but elms (both wych elm and English elm (*Ulmus procera*)) form approximately 35% of the total hedge length. Cuckoo pint, herb bennet and herb robert were the only woodland species recorded in the hedge base, but both greater stitchwort and lesser stitchwort (*Stellaria graminea*) are locally common in the hedge base. The most distinctive herbaceous species recorded here include bracken (*Pteridium sp.*), hop (*Humulus lupulus*), honeysuckle (*Lonicera periclymenum*) and black bryony (*Tamus communis*).

3.28 **H5** forming the southern boundary of field **F3** averages 3.5m in height and 2m in width and appears to be flailed on an occasional basis. It has a sheep fence on its northern side and there are no standard trees; a slight bank is present in the centre of the hedge but no ditch. Hazel and blackthorn predominate (forming 57% of the total woody species content of the sampled section of hedge). Dog's mercury (*Mercurialis perennis*), male fern (*Dryopteris filix-mas*), cuckoo pint and herb Robert were the most frequently recorded of the six woodland species found in the 30m sample length but all these species were scarce.

3.29 **H6** is of similar composition to **H5** although the internal bank becomes increasingly more pronounced to the south. There is a relatively low woody species diversity here: hazel and blackthorn predominate (totalling 80% of all woody species recorded). Bluebell

(*Hyacinthoides non-scripta*), herb Robert, herb bennet and cuckoo pint are the woodland species recorded here but all appear to be uncommon.

3.30 **H7** is a continuation of the roadside boundary **H4** and is very similar to that boundary (see above) however this hedgerow has the lowest number of woody species recorded across the Study Site, with hazel and blackthorn predominating. Only three woodland species were recorded in the 30m sampled section: cuckoo pint, herb bennet, and bluebell. Bracken is abundant here and hop is frequent.

3.31 **H8** is a long hedge, with a sheep fence on its northern side, forming the Study Site's southern boundary. Some sections are tall and dense, other sections short and dense, some lengths are tall but thin and some lengths have standard trees whilst others do not, and some sections are atop a relict bank. In addition, there is a section in the south/east of this boundary, adjacent to racing pigeon lofts, where there is no hedgerow and only a wooden fence. Two 30m sections of hedgerow were sampled and hazel and blackthorn predominated amongst the woody species recorded however the most notable woody species here was small-leaved lime which is present as a stand of semi-mature trees in the north of the hedgerow. Woodland species diversity is low with only herb Robert and herb bennet being recorded.

3.32 All hedgerows onsite, with the exception of **H7**, can be classed as Important with regard to their botanical value, interconnections with other hedgerows, and with regard to proximity to public rights of way and roads. Three of the hedgerows have numerous standards although these are typically semi-mature trees and are mostly ash (*Fraxinus exclseior*). Around the bases of the hedgerows there is a relatively uniform flora where goose grass, (*Galium aparine*), nettle, cow parsley (*Anthriscus sylvestris*) and false oat-grass are predominant. Where visual access allowed, the interior of the hedge base is typically dominated by ivy (*Hedera helix*).

Line of Trees/Shrub Planting

3.33 The north western corner of the Study Site borders a substation, the boundary of which has been planted with shrub and tree species which are gradually becoming outgrown including hazel, hawthorn, dogwood, field maple and goat willow.

Habitat Overview

3.34 The Study Site comprises species-poor semi-improved, grazed grassland and arable land of limited ecological value with grassland habitat characteristic of MG6b sub-communities. Native hedgerows which delineate the boundaries of the Study Site and internal field boundaries are, however, considered to be of greater ecological importance particularly given their status as a Priority habitat for Wales whilst several of the hedgerows are considered to qualify as 'Important' in accordance with the Wildlife and Landscape criteria under the Hedgerow Regulations.

Assessment against SINC Criteria

3.35 The habitat types present within the Study Site, which are listed within the GSWSSW, are limited to:

- ***H4****. Neutral grassland*. Grassland habitat across fields **F2** and **F3** are considered to be of low to moderate botanical interest with no species of note identified. This habitat collectively supports five species from Table 2 of the neutral grassland assessment table in the GSWSSW and as such does not meet the SINC criteria for this habitat whereby a minimum of eight species from Table 2 are needed.

3.36 Field **F1**, meanwhile, is currently subject to designation as SINC based on a former status as a relatively species-rich neutral grassland. However, the field now comprises a species-poor arable field and as such no longer fulfils Monmouthshire's criteria for SINC designation.

Protected and/or Notable species

3.37 The likelihood of presence, or confirmed presence, of protected/and or notable wildlife species within the Study Site is summarised below with reference to habitat suitability and detailed surveys where relevant. Further details are made available within Appendices and Plans where referenced.

3.38 Where a particular species or taxonomic group has been confirmed to be present, or presence is inferred based on habitat suitability, the ecological value or significance of the population or assemblage is assessed on a geographical scale.

Breeding Birds

3.39 A desk study returned several records of bird species within 2km of the Study Site were which include several Schedule 1 species, species listed on Section 7 of the Environment (Wales) Act 2016, and/or RSPB red/amber listed species.

3.40 Records of Schedule 1 species within 2km of the Study Site include kingfisher (*Alcedo atthis*), barn owl (*Tyto alba*), fieldfare (*Turdus pilaris*), hobby (*Falco subbuteo*), red kite (*Milvus milvus*), peregrine (*Falco peregrinnus*), brambling, black redstart and goshawk (*Accipiter gentilis*).

3.41 A number of other priority species have also been recorded within 2km, including farmland species such as linnet (*Carduelis cannabina*), skylark (*Alauda arvensis*), lapwing (*Vanellus vanellus*) and yellowhammer (*Emberiza citronella*). This in in addition to several records for woodland and garden variety species, typical of the surrounding habitats.

3.42 Native hedgerows and associated standard trees within and adjacent to the Study Site provides a suitable foraging and nesting resource for a diverse assemblage of generalist bird species. Grassland habitat and arable land is, however, considered to be of some limited value to a foraging bird assemblage only. Such habitat is unlikely to provide suitable nesting habitat for ground nesting species due to distance associated with livestock grazing and agricultural activities.

Bats

3.43 The data search returned a number of records for bat roosts within 2km of the Study Site, including several roosts for brown long-eared, Natterer's (*Myotis nattereri*), whiskered (*Myotis mystacinus*), soprano pipistrelle and common pipistrelle bat, the closest of which are located within circa 540m of the Study Site whilst a record for a serotine (*Eptesicus serotinus*) bat roost was also returned within 2km of the Study Site.

3.44 With respect to Annex II species, a desk study returned a record for a greater horseshoe bat day and hibernation roost within circa 4km of the Study Site and several roosts for lesser horseshoe bat within 2km.

3.45 There are several records for foraging/commuting bat activity within 2km of the Study Site. Species for which records exist include soprano pipistrelle, common pipistrelle, brown long-eared, noctule, whiskered/Brandt's*),* serotine, Daubenton's (*Myotis daubentonii*), Natterer's, lesser horseshoe and greater horseshoe bats.

3.46 Arable land and grazed poor semi-improved grassland which dominated the Study Site is considered of limited foraging value for a local bat assemblage whilst lighting/disturbance arising from adjacent residential to the east and south is likely to limit a significant bat assemblage. Native hedgerows do, however, provide a linear feature for the dispersal of a bat assemblage across the Study Site and between their roosts and foraging grounds in the wider landscape.

3.47 To assess bat activity across the Study Site manual transect and automated bat detector surveys were previously undertaken by EDP monthly, between August and October 2018 and between April and July 2019.

3.48 Overall, a total of eleven bat species were recorded utilising the hedgerows for commuting and foraging during manual transect and automated detector surveys. Activity was at a moderate level for common and widespread species (such as common and soprano pipistrelle and noctule) and low for the rarer species (such as serotine, Nathusius' pipistrelle (*Pipistrellus nathusii*) and Leisler's) and the Annex II species (Barbastelle (*Barbastella barbastellus*), greater horseshoe and lesser horseshoe).

3.49 The Study Site lies within 8.7km of the Usk Bat Sites SAC which is primarily designated for lesser horseshoe bat. The activity of this species on the Study Site was low, accounting for a maximum of 15% but usually less than 5% of activity. It is unlikely that the Study Site is of significant importance to this species. The Study Site has been found to be used by a diverse assemblage of bats, although there are no key habitat features, such as roosting areas on site. Because of this, the species and activity is considered to be a reflection of the Study Site's proximity to good quality habitats as opposed to any intrinsic value offered by the Study Site. Furthermore, the Study Site is small in area, and positioned in a landscape containing large extents of both similar and higher quality foraging/commuting habitats for bats and this, together with the predominance of common and widespread species suggests that the bat assemblage is assessed as being of Local level importance.

Investigations of Bat Roosting – Trees

3.50 A visual assessment of on-site trees confirmed them to be of negligible potential to support roosting bats given the absence of suitable features.

Badger

3.51 [redacted]

3.52 No badger setts were identified within the Study Site during a formal badger survey undertaken by EDP in August 2018 or further survey effort undertaken during 2021, Grassland habitat and arable land is considered to provide optimal foraging habitat for badger whilst hedgerow boundaries provide cover for setts.

Dormouse

3.53 SEWBReC returned records for dormouse 1.8km of the Study Site, dated 2016, 2017 and 2019 all in association with vegetation along the A465 to the east of Abergavenny.

3.54 Hedgerows onsite provide optimal habitat for dormouse. However, unvegetated fence lines do limit the potential for dispersal of this species across the Study Site and to the wider landscape. A nest tube survey to determine the presence/likely absence of dormouse within the Study Site was undertaken by EDP on four occasions during 2018 and a further five occasions during 2019. No evidence of dormouse was found during any of the survey visits such that this species is presumed absent.

Otter and Water Vole

3.55 Multiple records for otter within 2km of the Study Site were returned by SEWBReC and are associated with the River Usk and Gavenni to the south and east of the Study Site respectively. A single record for water vole circa 1.3km east of the Study Site was returned during the desk study, beyond Abergavenny and the A485.

3.56 There is, however, no suitable aquatic habitat for either species within the Study Site such that both otter and water vole are presumed absent from the Study Site.

Great Crested Newt

3.57 A record of great crested newt was returned by SEWBReC during the desk study, dated 2018, circa 500m north-east of the Study Site. A review of OS mapping has identified two waterbodies within 120m north of the Study Site. This in in addition to several records for common frog, common toad, palmate newt and smooth newt within 2km of the Study Site.

3.58 Arable land and grazed grassland are considered of poor suitability for great crested newt whilst no aquatic habitat is present onsite. Although hedgerow boundaries provide

habitat/cover for this species, several hedgerows are fragmented where they have been replaced by fence lines whilst existing development adjacent to the Study Site is considered a barrier to dispersal of this species east and south. Nevertheless, given the proximity of two waterbodies within 120m, further survey to confirm presence/absence of this species is recommended.

Reptiles

3.59 Several records for slow-worm (*Anguis fragilis*) were returned during the desk study, the nearest of which is located within 320m of the Study Site. This is in addition to a record for grass snake (*Natrix* natrix) circa 830m north of the Study Site and a record for adder (*Vipera berus*) circa 800m north-west of the Study Site. Three records for common lizard (*Zooctoca vivpara*) were returned, the closest 800m north-east of the Study Site in association with the eastern outskirts of Abergavenny.

3.60 Grazed grassland which dominates the Study Site is considered of limited value for a population of common reptile species whilst ploughed, arable land is considered of negligible importance. Suitable habitats are predominantly limited to the field margins comprising native hedgerows likely to support low numbers of reptiles only.

3.61 A reptile survey was previously undertaken by EDP to confirm presence/infer absence of a reptile population with surveys undertaken on 7 occasions during suitable weather conditions between August and October 2018. No reptiles were identified during survey effort suggesting they are absent or otherwise in such low numbers as to be undetectable.

Other Species Potential Supported

Mammals

3.62 Several records for European hedgehog (*Erinaceus europaeus*) were returned during the Study Site the nearest of which is within 570m of the Study Site. This is in addition to a single record for polecat (*Mustela putorius*), a road mortality along the A465. Habitats supported by the Study Site, namely hedgerow boundaries may provide suitable cover for these species whilst grassland habitat is a potential foraging resource.

Invertebrates

3.63 No records of notable invertebrate species were returned for the Study Site although several records for local priority species were recorded within 2km of the Study Site, including white-letter hairstreak (*Satyrium w-album*), grayling (*Hipparchia semele*) and the earwig Forficula *lesnei*, all locally important species. This is in addition to a record for the nationally rare beetle, *Dorytomus hirtipennis* as well as several red data book species, the latter predominantly in association with the River Gavenni and habitats across Sugar loaf mountain. A record for white-letter hairstreak and purple emperor (*Apatura iris*) was also returned; both species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

3.64 Grazed grassland and arable land is unlikely to support a notable invertebrate assemblage given the poor botanical and structural diversity. A limited and generalist invertebrate assemblage may, however, occur in association with hedgerow habitat onsite. The larval stages of white-letter hairstreak are dependent on elm as a foraging resource, with occasional occurrences of this species recorded during the Extended Phase 1 survey in August 2018 and July 2021.

Flora

3.65 Records for the following species listed on the IUCN threat list were returned during the desk study the nearest of which is within 440m of the Study Site: charlock (*Sinapis arvensis*) and *Schistidium elegantulum*. This is in addition to records for bluebell (*Hyacinthoides non-scripta*), a species listed under Section 8 of the Wildlife and Countryside Act 1981 (as amended). A desk study also returned records for several red data book bryophyte and lichen species, largely associated with Sugar loaf mountains to the west and designated sites in the wider landscape. Charlock is typically found in association with arable land whilst bluebells are typically associated with woodland and hedgerow habitat. No notable species were, however, identified onsite during the Extended Phase 1 survey and botanical assessment.

Biodiversity Evaluation

3.66 An evaluation of the Study Site with respect to its biodiversity value and potential level of impacts associated with its development has been based on the criteria issued by MCC. With reference to this guidance the Study Site has been assessed as Moderate (as illustrated at **Plan EDP 4**) on the following basis:

- Part of the Study Site is designated as a SINC albeit, currently does not meet SINC criteria whilst remainder of the Study Site is of overall lower biodiversity value;
- 'Important' hedgerows present;
- Study Site of existing, albeit, limited value for connecting semi-natural habitats in the landscape as identified in the ecological connectivity assessment and during field surveys; and
- Protected species recorded onsite, (namely a breeding bird and bat assemblage) but unlikely to prevent development subject to implementation of appropriate mitigation and compensation.

3.67 The Study Site does not contain any Veteran trees and is not situated within the Juvenile Sustenance Zone of a Wye Valley Forest of Dean Bat Sites SAC Maternity Roost SSSI. A Site Summary Form is provided at **Appendix EDP 4**.

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Section 4
Summary and Conclusions

4.1 This Preliminary Ecological Appraisal has been prepared by EDP on behalf of Edenstone Homes Ltd in relation to land at Penlanlas Farm, Abergavenny. This Ecology Report provides a high-level assessment of the Study Site with respect to identifying key ecological constraints and opportunities to inform residential development. This report is to be submitted to MCC in support of the allocation of the Study Site within the emerging Local Development Plan.

4.2 With respect to designated sites, the River Usk is located 2km south of the Study Site. As such, any development proposals which will result in an increase in residential units will have potential impacts upon this designation as a result of increase phosphorus loading to the watercourse. Such impacts will be offset to some extent through the removal of land within the Study Site from agricultural production combined with the proposed provision of open green space along the western boundary of the Study Site. Currently, there is an impetus on new development to demonstrate nutrient neutrality which may be achieved by offsetting additional nutrient loadings through taking additional land out of agricultural production, strategic wetland creation and/or improving the efficiency of water treatment works to offset phosphate inputs across the River Usk catchment. In preparing a new local development plan, MCC will be required to demonstrate that housing growth can be accommodated and adequately mitigated through a Habitat Regulations Assessment of the emerging LDP. In addition to the above, there is the potential for impacts to arise upon the River Usk SAC/SSSI as a result of increase contaminated surface water runoff discharging to ground and/or running off into a stream during the construction and operation phase of proposed development.

4.3 The Illustrative Masterplan does, however, accommodate sustainable drainage features, predominantly along the eastern boundary of the Study Site with attenuation features also proposed in association with public open space. In addition to managing and remediating surface water runoff form the Study Site, such features can be designed to accommodate new habitats including aquatic/marginal plug planting and/or species-rich grassland, promoting biodiversity across the Study Site.

4.4 Of further pertinence the Study Site is located within 310m of Sugar Loaf SAC/SSSI whilst Coed Y Cerrig SSSI and Blorenge SSSI are located within 2km of the Study Site. No direct impacts are anticipated on these designations given their distance and spatial separation from the Study Site. Indirect impact may, however, occur following an increase in recreational pressure from new housing and subsequent damage/degradation of qualifying habitats. Such designations are, however, actively managed for public access and remain in favourable or recovering condition. Inherent within the Illustrative Masterplan is the provision of open green space, providing alternative recreational opportunities whilst connectivity to public footpaths to the north of the Study Site will be maintained.

4.5 With respect to non-statutory designations, field **F3** encompasses Old Hereford Road SINC. The majority of this land will be developed with some provision of open green space with the south-western and south-eastern corner of this field. Field **F3** is, however, characterised by arable land following previous changes in its management. As such, habitats across filed **F3** are considered to be of negligible importance. With respect to remaining SINCs no significant effects are anticipated given their distance and spatial separation from the Study Site. This is with the exception of River Gavenni SINC where, assuming hydrological connectivity of the Study Site to this watercourse, there is the potential for impacts associated with increased surface water runoff following conversion of a greenfield to residential development. Such impacts can, however, be adequately mitigated through implementation of a sustainable drainage strategy as discussed above, combined with the adoption of sensitive working practises and pollution prevention guidelines during construction.

4.6 An initial Extended Phase 1 survey was undertaken by a suitably experienced and licensed EDP surveyor on 08 August 2018, combined with a botanical assessment on 21 July 2219 and further updated during July 2021. The Study Site encompasses agricultural farmland, predominantly comprising poor semi-improved grassland and an arable field. Such habitats are considered to be of negligible ecological importance. Field boundaries are, however characterised by dense, intact and species-rich hedgerows. Such habitats compromise Priority habitats for Wales and are of value to protected and notable species. Proposed development has sought to retain existing hedgerow as far as possible and offset these from development through inclusion of habitat buffers, incorporating the root protection zones of retained vegetation. Some hedgerow loss is, however, required to facilitate access to the development and development parcels. Where sections of hedgerow are to be lost, these should be mitigated through the enhancement of retained hedgerows combined with new shrub planting elsewhere across the proposed development. Proposed open green space offers suitable flexibility to accommodate new tree and shrub planting providing benefits to biodiversity, increasing the Study Site's resilience to climate change and also providing natural features of value to visual amenity. Such open space also provides opportunities for new habitat creation incorporating native fruiting and flowering species, as well as for new habitat features to be incorporated such as bird/bat boxes and hibernacula, of value to wildlife including birds, common reptiles invertebrates.

4.7 With respect to protected species more generally, detailed surveys for bats, dormouse and common reptiles were undertaken between 2018 and 2019. No common reptiles or dormouse were identified onsite although the Study Site was found to support a bat assemblage of local level importance. Should the Study Site come forward for development, update species surveys will likely be required to update the ecological baseline of the Study Site given the time that has elapsed, and to ensure the masterplan design and mitigation strategy remains sufficient to offset potential impacts to ecological receptors supported by the Study Site, as summarised in **Table EDP 4.1** below:

Table EDP 4.1: Scope of further detailed protected species surveys.

Survey Type	Description
Bat Activity Surveys	In respect of the presence of suitable habitat onsite and presence of bat roosts adjacent to the Study Site and within the wider landscape, manual transect surveys were undertaken by EDP during 2018 and 2019. This was in addition to deployment of two automated bat detectors. Further update assessment may be required to inform a mitigation strategy for this species and ensure any key commuting routes are identified and protected.
Dormouse	Hedgerow boundaries provide suitable habitat for this species. Whilst previous surveys during 2018 and 2019 confirmed the likely absence of a dormouse population, further update surveys may be required to confirm continued absence, particularly should progression of a planning application be delayed a further 12 months.
Great Crested Newt	Water sampling eDNA analysis of two ponds situated within 12m of the Study Site is recommended to confirm presence/infer absence of a great crested newt population.

4.8 **Table EDP 4.2** summarises other survey types which, while commonly required to inform a planning submission for development sites, were not considered necessary/appropriate in this case.

Table EDP 4.2: Ecology surveys scoped out.

Survey Type	Reasons for Scoping Out
Breeding Birds	Any breeding birds are likely to be confined to the boundary hedgerows which are to be largely retained. The small size of the Study Site, short grassland swards exhibited as a result of management, and regular disturbance from grazing suggests that the fields themselves are unlikely to support ground nesting species. Precautionary measures of clearance during the pre-construction phases of development are instead recommended however. harm/disturbance to nesting birds.
Otter and Water Vole	The desk study returned record of otter; however, there is a lack of suitable aquatic habitat onsite for either species.
Notable Mammals	The desk study returned multiple records of hedgehog whilst field boundaries provide suitable foraging habitat. Other notable mammal species are unlikely supported however, given the overall lack of suitable habitats supported. Precautionary measures of clearance during the pre-construction phases of development are instead recommended to ensure no harm/disturbance to notable mammals.
Reptiles	Previous survey effort undertaken during 2018 identified no evidence of common reptiles within the Study Site. In respect of the limited extent of suitable habitat within the Study Site, confined to hedgerow boundaries, no further survey effort is considered necessary to inform a future planning application. Precautionary measures during future site clearance should be adopted, however, to avoid harm/injury in the unlikely event low numbers of individuals are present.
Invertebrates	In respect of the limited extent of suitable habitat, largely confined to boundary features, the Study Site is considered unlikely to support a notable and diverse invertebrate assemblage such that no further surveys are proposed.

4.9 Based on the ecological baseline work undertaken to date and, in the absence of mitigation, EDP has identified the potential for negative effects to arise upon ecological receptors present/potentially present onsite. Accordingly, EDP has contributed to the design of the Illustrative Masterplan which incorporates inherent mitigation. This includes the proposed retention of hedgerow boundaries as far as possible, combined with the provision of open green space capable of accommodating new planting and habitat creation in compensation for habitat loss. Such features will also deliver multifunctional benefits to biodiversity, visual amenity, recreation, sustainable drainage and climate resilience. It is further recommended that the following design principles are translated into a future detailed design:

- The adoption of measures to physically protect retained habitats during construction, including the appropriate usage of protective fencing and establishment of Ecological Protection Zones (EPZs), combined with adoption of sensitive working methodologies during site clearance;

- The exclusion or retained hedgerows from the curtilage of residential units to ensure their integrity is maintained in the long-term;

- The creation of wildflower meadow grassland across proposed open areas of open green space;

- The inclusion of marginal/aquatic planting around sustainable drainage features, based on likely hydrological regime;

- New native planting within ecological buffers and across proposed informal open green space to compensate for habitat loss whilst enhancing retained habitats in of value for wildlife including bats, birds, reptiles and invertebrates;

- Sympathetic garden fencing, allowing dispersal of hedgehogs and other small mammals throughout gardens;

- The provision of new habitat features including bat and bird boxes (including those to be integrated within buildings and those to be installed upon semi-mature trees retained onsite), and hibernacula for a common reptile, amphibian and invertebrate population, to deliver additional net benefits for biodiversity; and

- Minimising the spillage of artificial lighting on retained and new roosting, foraging and commuting/dispersal habitats for wildlife through a sensitive lighting strategy.

4.10 Overall, it is considered that the scheme, as proposed, is capable of compliance with relevant planning policy and wildlife legislation in respect of the conservation of the natural environment.

Appendix EDP 1
Illustrative Masterplan
edp5126_d028b 03 August 2021 OS/GOH

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Penlanlas Farm, Abergavenny

ILLUSTRATIVE MASTERPLAN

date **03 AUGUST 2021** - drawing number **edp5126_d028b** - scale **1:1,000 @ A2** - drawn by **OS** - checked **GOH** - QA **PD**

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Appendix EDP 2
Botanical Survey Results - Grassland

Table EDP A2.1 Plant Species recorded within the Study Site (July, 2019).

Common name	Scientific name	DAFOR			Indicator Species*	
		F1	F2	F3	NG	CG
Scarlet pimpernel	*Anagalis arvensis*	R		R		
Sweet vernal grass	*Anthoxanthum odoratum*	R/LF	A	A		
Cow parsley	*Anthriscus sylvestris*	R				
False oat-grass	*Arrhenatherum elatius*	R/LO	R	R		
Shepherd's purse	*Capsella bursa-pastoralis*	O				
Common knapweed	*Centaurean nigra*	R			NG	
Common mouse-ear	*Cerastium fontanum*	R	F	O		
Creeping thistle	*Cirsium arvense*	R	F/LA	R		
Crested dog's-tail	*Cynosurus cristatus*	R	F	O		
Cocksfoot	*Dactylis glomerata*	R	O	O		
Red fescue	*Festuca rubra*		O			
Cut-leaved cranesbill	*Geranium dissectum*	R	R	R		
Dove's-foot cranesbill	*Geranium molle*		R			
Hogweed	*Heracleum sphondylium*	R	R	R		
Yorkshire fog	*Holcus lanatus*	F	A	A		
Common cat's-ear	*Hypochaeris radicata*		A	R	NG	
Perennial rye-grass	*Lolium perenne*	O/LF	A	A		
Bird's-foot trefoil	*Lotus corniculatus*		O		NG	CG
Ribwort	*Plantago lanceolata*		O	R		
Annual meadow-grass	*Poa annua*	R/LO	O	R		
Smooth meadow-grass	*Poa pratensis*		R			
Rough meadow-grass	*Poa trivialis*	R/LO	F/LA	O		
Creeping cinquefoil	*Potentilla reptans*	R	R			
Self-heal	*Prunella vulgaris*		R			
Bracken	*Pteridium aquilinum*	R				
Meadow buttercup	*Ranunculus acris*	R	O	O		
Bulbous buttercup	*Ranunculus bulbosus*		R		NG	CG
Creeping buttercup	*Ranunculus repens*	R	O	O		
Sorrel	*Rumex acetosa*		R	R		
Broad-leaved dock	*Rumex obtusifolius*	R				
Common ragwort	*Senecio jacobaea*	R	R			
Lesser stitchwort	*Stellaria graminea*		R	R	NG	
Dandelion	*Taraxacum officinale agg.*		R	R		
Lesser trefoil	*Trifolium dubium*		O	R		
Red clover	*Trifolium pratense*		O/LF	R	NG	
White clover	*Trifolium repens*	R	A	F		
Scentless mayweed	*Tripleurospermum inodorum*	R				
Nettle	*Urtica dioica*					
Germander speedwell	*Veronica chamaedrys*		O	R		
Thyme-leaved speedwell	*Veronica serpyllifolia*		R	R		
Common vetch	*Vicia sativa*		R			
SINC Indicators					**6**	**2**

***Indicator Species for the following categories:** **NG – Neutral Grassland Indicator Species**
CG - Calcareous Grassland Indicator Species
PIL – Post Industrial Land Indicator Species

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Appendix EDP 3
Illustrative Photographs

Photo EDP 1: Field **F2** with semi-improved neutral grassland sward in foreground

Photo EDP 2: Field **F3**.

Photo EDP 3: The Study Site looking west.

Photo EDP 4: Hedgerow **H3**.

Photo EDP 5: Hedgerow **H4**.

Photo EDP 6: Hedgerow **H8** – looking north-west towards the small-leaved lime

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Appendix EDP 4
Site Summary Form

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Local Development Plan

Ecological Site Assessments in Monmouthshire

2019/20

1 Introduction

To inform the allocation and deliverability of candidate sites through the LDP process in line with relevant policy and legislation, Monmouthshire County Council requires the submission of baseline ecological information. This methodology has been prepared in order to ensure that there is a consistent approach to this submission and that the quality of the information provided is adequate.

Site Appraisals shall be presented in a report and describe the existing ecological value of the proposed LDP sites, principally based on botanical survey but with consideration of other potential Protected or Priority species that may be present. Sites must be also assessed for their potential to qualify wholly or in part as Sites of Importance for Nature Conservation (SINCs) using the Guidelines for the Selection of Wildlife Sites in South Wales adapted for Monmouthshire (Available on the Monmouthshire County Council Website).

Following the site appraisal, an evaluation of status or potential impact on the biodiversity of the site must be made and classified as either: High, Medium or Low value. This status will be quality assured and checked by Monmouthshire County Council through the Candidate Sites Assessment Process prior to the Deposit Plan.

Information gathered from the Monmouthshire County Council Connectivity Assessment (available on the Monmouthshire County Council Website) will also need to be used to help inform the overall value of the proposed LDP Candidate Sites.

In addition to this, GIS (Geographical Information Systems) data in the format of shape files should be provided to provide visual representation of the ecological status of each site. (A guidance note on this requirement is available on the LDP webpages relating to the ecological site assessments of Candidate Sites on the MCC website.)

2 Requirements for LDP Candidate Site Assessment

Due to the large number of candidate sites proposed, Monmouthshire County Council requires a consistent approach to ecological data gathering and summarisation. All Appraisals must comply with the CIEEM Guidelines for Preliminary Ecological Appraisal and be undertaken and reviewed by CIEEM members only. All appraisals must include a summary sheet to be used by the LPA (template included at the end of this document). **The LDP should be based on robust evidence and our expectation is that this guidance is followed.**

It is strongly recommended that ecological information is submitted during the second call for candidate sites in late 2019.

2.1. Desk-Based Study

The desk based study shall be based on the following as a minimum:

- A 1km SEWBReC data search for Protected and Priority Species
- A 1km SEWBReC data search for existing designations including SACs, SPA, Ramsar site, SSSIs, Local Wildlife Sites, Sites of Importance for Nature Conservation. This must include 'reasons for designation' for LWS/SINCs.
- Use of the Ancient Woodland Inventory to identify woodland designations ASNW, PAWS etc.
- Identification of whether the site falls within the Juvenile Sustenance zone[1] for the Wye Valley and Forest of Dean Bat Sites SAC*
- Review of any previous walkover undertaken for the adopted LDP – information is available on the MCC LDP webpages
- Review of the Monmouthshire Ecological Connectivity Assessment[2] to assess the context of the candidate site in providing ecological connectivity- information is available on the MCC LDP webpages
- Appraisals will be expected to consider any relevant ecological records that have been previously generated by studies to inform planning undertaken on or near the sites.

[1] Lesser horseshoe roost Juvenile Sustenance Zone = within 600m of a maternity roost (SSSI)
Greater horseshoe roost Juvenile Sustenance Zone = within 1km of a maternity roost (SSSI)
[2] Ecological Connectivity Assessment of Settlements in Monmouthshire Report, 2010

2.2. Field Assessments

The optimum period for the assessment of biodiversity and habitats is between the months of April -July. Sites to be surveyed according to the methodology detailed in the 'Handbook for Phase 1 habitat survey' . The following details and features must also be noted:

- Habitats present and features of nature conservation interest including Priority Habitat (Section 7 Habitat[3])
- Protected or Priority (Section 7) species - signs indicating presence and potential for the habitat to support such
- Site of Importance for Nature Conservation – assessment of the condition of the site with respect to its potential to qualify as a SINC
- Consideration of all hedgerows in the context of the Hedgerow Regulations 1997.
- Veteran trees - presence of over-mature trees
- Consideration of the value of the site in terms of habitat connectivity / ecosystem resilience using best available guidance
- Requirements for further ecological survey.

2.3. Expertise of consultants

The information will need to be prepared and reviewed by an appropriately experienced ecologist that is a member of the Chartered Institute of Ecology and Environmental Management.

2.4. Biodiversity Evaluation

Using the results of the desk-based survey and field assessments, an evaluation of status or impact of the biodiversity of the site shall be made and classified as either: High, Medium or Low value.

2.5. SINC Identification

Local Development Plan Candidate Sites must be assessed against the criteria in the '*Guidelines for the Selection of Wildlife Sites in South East Wales*' which have been adapted for Monmouthshire.

[3] Environment (Wales) Act 2016

3. Summary of Outputs

The following will be expected to submitted to the LPA during the second call for sites in Autumn 2019.

3.1 Preliminary Ecological Appraisal Report (PEAR)

A Preliminary Ecological Appraisal Report (PEAR) in accordance with the CIEEM Guidelines for Preliminary Ecological Appraisal / Guidelines for ecological report writing.

3.2 Site summary form

A Site Summary Form shall be completed for each Candidate Site based on both field survey and desk-based assessments. A blank Site Detail Form and accompanying explanatory notes are provided in Annexes 1 & 2.

3.3 Site Values

For all sites, the **overall value** for biodiversity will need to be defined (see evaluation criteria below). Monmouthshire County Council may adjust this value depending on further ecological survey and evidence prior to the Deposit Plan.

3.4 SINC Assessment

Candidate sites/parts of sites must be considered for the potential for them to be of SINC quality. If the site, or part of the site meets the SINC criteria, please contact the LPA Biodiversity and Ecology team to discuss how data shall be presented. Designation will be thereafter undertaken by the SINC expert panel[4].

3.5 GIS information

The ecological status of the site will need to be digitised using GIS (Geographical Information Systems) in the format of shape files. A guidance note and template GIS shape file will be available on the Monmouthshire LDP website on the LDP page relating to the ecological site assessments of Candidate Sites. This shall include the format that digitisation will need to take.

[4] SINC Expert Panel includes Monmouthshire County Council, Gwent Wildlife Trust, Natural Resources Wales and Monmouthshire Meadows Group.

4. Evaluation Criteria

Sites must be evaluated using the following criteria drawn together using the methodology for the adopted Local Development Plan, Ratcliffe Criteria[5] and Local Wildlife Site guidelines[6]. The evaluation will be checked and quality assured by Monmouthshire County Council. **Deliberate underestimation of site value could jeopardise the sites inclusion in the deposit plan.**

HIGH (Red)

- Candidate Site includes land designated as SAC/SPA/Ramsar/SSSI
- Site within the Juvenile Sustenance Zone[7] of a Wye Valley Forest of Dean Bat Sites SAC Maternity roost SSSI
- Site wholly designated as Local Wildlife Site/SINC/ASNW
- Site identified as Site of Importance for Nature Conservation (SINC) quality during field assessment
- Site is in the majority (>50%) composed of Priority Habitat(s) (Section 7) Environment (Wales) Act 2016
- Site of existing value for connecting semi-natural habitats in the landscape which is considered to be critical in the context of a protected species or protected site
- Protected species recorded on site to an extent that development will not be possible

MEDIUM (Orange)

- Site close / adjacent to a SAC/SPA/Ramsar/SSSI/LWS/SINC/ASNW
- Site habitat(s) close to SINC quality but threshold for designation not reached
- Part of the site includes habitats that meet LWS / SINC threshold
- An already designated LWS/SINC present within a candidate site of overall lower biodiversity value
- Presence of Priority Habitat (Section 7) within the candidate site (except hedgerow)

[5] Ratcliffe, 1977
[6] South Wales Wildlife Sites Partnership, 2004 (as amended)
[7] Lesser horseshoe roost Juvenile Sustenance Zone = within 600m of a maternity roost (SSSI)
Greater horseshoe roost Juvenile Sustenance Zone = within 1km of a maternity roost (SSSI)

- ‘Important’ hedgerow/s present
- Veteran / over mature tree(s) present
- Site of existing value for connecting semi-natural habitats in the landscape as identified in the ecological connectivity assessment and/or during field surveys.
- Protected species recorded / reasonable likely to be found on site but unlikely to prevent development if appropriate mitigation and compensation provided
- Site within the Juvenile Sustenance Zone[8] of a Horseshoe Maternity roost (not designated).

LOW (Green)

- Site not near any protected sites SAC/SPA/Ramsar/SSSI/LWS/ANSW
- Site assessed as not of SINC quality
- Limited or no features of biodiversity interest
- No priority habitats on site (with the exception of hedgerows)
- Site of very limited value for connecting semi-natural habitats in the landscape
- No protected species on or near site

[8] Lesser horseshoe roost Juvenile Sustenance Zone = within 600m of a maternity roost
Greater horseshoe roost Juvenile Sustenance Zone = within 1km of a maternity roost

Annex 1

Reference No: CS/0000

Site General Information	
Name: Penlanlas Farm, Abergavenny	Grid Reference: S0 303 159
Current land use & management: Arable field and cattle grazed pasture	Size: 4.8 hectares
Proposed use: Residential development	Form Completed by: Emily Williams; EDP Associated Ecologist
Overall Site Evaluation: HIGH / MEDIUM / LOW **Medium**	

Site Summary Table

Statutory Designated Site(s)	**Adj**	Section 7 Habitat(s)	**Part**
SAC Juvenile sustenance zone	**No**	Protected Species	**Yes**
Non Statutory Designated Site(s)	**Yes**	Section 7 Species	**Yes**
SINC Recommendation	**No**	Ecological Connectivity	**Conn**
SEWBReC unique data code: 0212-326			

Statutory Designated Sites

Is the site within or adjacent to an International or European Designated Site? (Special Protection Area, Ramsar Site or Special Area of Conservation) *(Underline the relevant designation)*

Whole of site	
Part of site	
Directly adjacent/within 250m buffer	
Within 500m buffer	x
Within 1km buffer	
No	

Is the site within or adjacent to a Nationally Designated Site? (National Nature Reserve or Site of Special Scientific Interest) *(Underline the relevant designation)*

Within	
Part of site	
Directly adjacent/within 250m buffer	
Within 500m buffer	x
No	

Juvenile sustenance zones - Is any part of the site within 1km of a greater horseshoe bat roost SSSI or within 600m of a lesser horseshoe bat roost SSSI?

Greater Horseshoe	
Lesser Horseshoe	
Distance from roost (m)	
No	x

Non Statutory Designated Sites

Is the site within or adjacent to a pre-designated Locally Designated Site? (Local Wildlife Site / Site of Importance for Nature Conservation or Ancient Semi Natural Woodland)

Within	
Part of site	x
Directly adjacent/within 250m buffer	
Within 500m buffer	
No	

List All Relevant Statutory and Non Statutory Designated Sites identified by the desktop study:

Sugar Loaf Woodlands SAC/SSSI; River Usk (Lower Usk) SAC/SSSI; River Usk (Upper Usk) SAC/SSSI; Cwm Clydach Woodlands SAC; Usk Bat Sites SAC; Coed y Cerrig SSSI; Coed-y-Person
SSSI; and Blorenge SSSI.

Land adjoining Old Hereford Road SINC; River Gavenni SINC; Ross Road SINC; Maindiff Court Hospital SINC; Orchard House SINC; and Neville Hall Hospital.

SINC Recommendation

Is the whole site or part of the site of SINC (LWS) quality? *(underline whole or part as appropriate)*

Yes ☐ Whole ☐ Part ☐

Qualifying criteria ☐

Borderline ☐

No ☒

Has the Monmouthshire County Council Biodiversity & Ecology Team been contacted to discuss what further information may be required?

Yes: ☐ No: ☒

Date: ☐

Priority Habitats and Important Features

Phase 1 Habitat	Wales Priority Habitat (Section 7)	% of whole site
Native Hedgerows	Hedgerows	6.04

Are there any **veteran trees or over-mature trees** on site?

Yes [ ] No [x]

If 'Yes' how many and what species?

Does the site have any **hedgerows**?

Species-rich (high) potential Hedgerow Regs Quality	944	Length (m)
Species-poor (medium) Has some potential	462	Length (m)
Species-poor (low) Single species dominant AND Gappy	38	Length (m)
No		

Does the site have any **water features** present?

Ponds	
Steams	
Ditches	
Other:	
No	X

Ecological Connectivity

Adjacent Land Uses & Habitats

The Study Site measures approximately 4.8 hectares (ha) and is located on the north-western edge of the town of Abergavenny. The Study Site comprises two grassland fields and a single arable field each bounded a network of mature native hedgerows. The southern and eastern boundaries of the Study Site are delineated by the residential housing associated with the settlement edge of Abergavenny. Arable land lies adjacent to the northern boundary whilst Old Hereford Road delineates the western boundary of the Study Site..

The Ecological Connectivity Assessment undertaken by Gwent Wildlife Trust in 20101 identifies routes of habitat connectivity predominantly along the eastern and southern boundaries of the town of Abergavenny as well as considers connectivity to primary habitat for dormouse, otter and great crested newt specifically.

An assessment identified minor woodland and hedgerow links between Penlanlas Farm and the Gavenny River which follows north to south along the eastern boundary of Abergavenny almost parallel to the A465 link road. The A465 link road and associated roadside planting provides an additional linear feature for dispersal of wildlife north to south. Of further pertinence, the River Usk flows to the south of Abergavenny although is largely disconnected from the Study Site by existing urban development. Patches of woodland and agricultural pasture along at the outskirts of the town do, however, provide potential stepping stones for dispersal of wildlife across the wider landscape, particularly to the north and east of the Study Site, In particular, .the Sugar Loaf Woodlands ASNW SAC and SSSI lies some 310m north-west of the Study Site.

Field surveys undertaken by EDP during 2018, 2019 and 2021 has identified a native hedgerow network onsite, with connectivity to offsite woodland and hedgerow habitat. Potential dispersal of wildlife to the south and east is, however, limited by existing residential development with fence lines fragmented external hedgerow boundaries. The boundary between fields F2 and F3 is, furthermore defined by an unvegetated fence line. As such, there is the potential to enhance connectivity across the Study Site through new habitat creation, replacing fence lines with new planting where possible, combined with the enhancement of a retained hedgerow network during development of the Study Site.

Does the site have any ecological connectivity value to either adjacent habitat or the wider landscape?

Critical connectivity: Existing Connectivity No connectivity:

Connectivity Opportunity: x

Protected Species

Have protected species been recorded at the site / reasonably likely to be present at site?

Confirmed [x] Reasonably likely [x] No and unlikely to be present [ ]

List Species: SEWBReC record	Evidence of presence on site (seen directly or field signs)	Potential to be present on site (habitat and location mean that it is likely)
Dormouse - SEWBReC returned records for dormouse 1.8km of the Study Site, dated 2016, 2017 and 2019 all in association with vegetation along the A465 to the east of Abergavenny.	No dormouse were found during nest tube surveys undertaken on four occasions during 2018 and a further five occasions during 2019.	Hedgerows onsite provide optimal habitat for dormouse. However, unvegetated fence lines do limit the potential for dispersal of this species across the Study Site and to the wider landscape
Bat assemblage including Annex II species	A total of eight bat species were observed utilising the hedgerows for commuting and foraging during manual transect surveys with common pipistrelle accounting for the greatest proportion of activity. Soprano pipistrelle, Myotis species, noctule, lesser horseshoe and long eared and serotine. Fee registrations for barbastelle, greater horseshoe and	Arable land and grazed poor semi-improved grassland which dominated the Study Site is considered of limited foraging value for a local bat assemblage whilst lighting/disturbance arising from adjacent residential to the east and south is likely to limit a significant bat assemblage. Native

	Leisler's bat were also recorded during automated detector survey.	hedgerows do, however, provide a linear feature for the dispersal of a bat assemblage across the Study Site and between their roosts and foraging grounds in the wider landscape.
Reptiles - Several records for slow-worm, and one for grass snake and adder within 2km Study Site. Three records for common lizard were also returned.	No reptiles were found during a reptile survey undertaken on 7 occasions between August and October 2018.	Grazed grassland which dominates the Study Site is considered of limited value for a population of common reptile species whilst ploughed, arable land is considered of negligible importance. Suitable habitats are predominantly limited to the field margins comprising native hedgerows likely to support low numbers of reptiles only.
Otter and Water vole - Multiple records for otter within 2km of the Study Site were returned by SEWBReC and are associated with the River Usk and Gavenni to the south and east of the Study Site	No evidence	Arable land and grazed grassland is considered of poor suitability for great crested newt whilst no aquatic habitat is present on site. Although hedgerow boundaries provide habitat/cover for this species, several hedgerows are

respectively. A single record for water vole circa 1.3km east of the Study Site was returned during the desk study, beyond Abergavenny and the A465.		fragmented where they have been replaced by fence lines whilst existing development adjacent to the Study Site is considered a barrier to dispersal of this species east and south.
Badger - Three records for badger were returned during the desk study, the closest located within 200m of the western boundary of the Study Site.	No badger setts nor field signs were identified within the Study Site during a formal badger survey undertaken in August 2018 or further survey effort undertaken during 2021.	Grassland habitat and arable land is considered to provide optimal foraging habitat for badger whilst hedgerow boundaries provide cover for setts.
Great crested newt record returned by SEWBReC during the desk study, dated 2018, circa 500m north-east of the Study Site.	No evidence to date.	Arable land and grazed grassland is considered of poor suitability for great crested newt whilst no aquatic habitat is present on site. Although hedgerow boundaries provide habitat/cover for this species, several hedgerows are fragmented where they have been replaced by fence lines whilst existing development adjacent to the Study Site is

		considered a barrier to dispersal of this species east and south.

Priority Species

Are there records for Priority (Section 7) Species (not included above)?

Yes [x] Potential [x] No [ ]

List Species: SEWBReC record	Evidence of presence on site (seen directly or field signs)	Potential to be present on site (habitat and location mean that it is likely)

Bird assemblage records within 2km including kingfisher barn owl fieldfare, hobby, red kite, peregrine, brambling, black redstart, goshawk, linnet, skylark, lapwing and yellowhammer.	None.	Native hedgerows and associated standard trees within and adjacent to the Study Site provides a suitable foraging and nesting resource for a diverse assemblage of generalist bird species. Grassland habitat and arable land is, however, considered to be of some limited value to a foraging bird assemblage only Such habitat is unlikely to provide suitable nesting habitat for ground nesting species due to distance associated with livestock grazing and agricultural activities.
European hedgehog records were returned during the Study Site the nearest of which is within 570m of the Study Site. This is in addition to a single record for polecat, a road mortality along the A465.	None	Habitats supported by the Study Site, namely hedgerow boundaries may provide suitable cover for these species whilst grassland habitat is a potential foraging resource.

Records for several local priority species were recorded within 2km of the Study Site, including white-letter hairstreak, grayling (and the earwig Forficula lesnei, This is in addition to a record for the nationally rare beetle, Dorytomus hirtipennis as well as several red data book species.	None	Grazed grassland and arable land is unlikely to support a notable invertebrate assemblage given the poor botanical and structural diversity. A limited and generalist invertebrate assemblage may, however, occur in association with hedgerow habitat onsite. The larval stages of white-letter hairstreak are dependant on elm as a foraging resource, with occasional occurrences of this species recorded during the Extended Phase I.
Plants – several records returned for species on the IUCN threat list including charlock (Sinapis arvensis) This is in addition to records for bluebell and several red data book bryophyte and lichen species, largely associated with Sugar loaf mountains to the west and designated sites in the wider landscape.	None	Habitats onsite are unlikely to support a notable floral assemblage. There is potential for arable land to support priority agricultural species. .

Conclusions

What additional ecological surveys/assessments will be required?

To determine if the site could be allocated for the purpose identified The following surveys have been undertaken to date: Desk study and Extended Phase I during August 2018 and updated July 2021 NVC/DAFOR Botanical Assessment undertaken during July 2019 with update DAFOR during July 2021. Manual transect bat activity survey between August and October 2018 and April, Ma, June and July 2019 with deployment of two automated bat detectors during each month. Dormouse nest tube surveys between August and November 201 and April-July 2019. Reptile surveys on 7 occasions between August and October 2018.	Prior to the submission of planning application to influence site design etc. Update bat activity surveys including manual transect and automated detector surveys. Update dormouse surveys Water sampling Edna surveys of 2 ponds within 500m of the Study Site.

Summary of potential biodiversity constraints

Bat assemblage of local importance utilising hedgerow boundaries for commuting/foraging

Breeding bird assemblage comprising common/widespread species in association with boundary hedgerows Limited potential for great crested newt if found present in offsite ponds Suitable habitat for badger and notable mammals Priority Habitat Hedgerows, some qualifying 'Important' Old Hereford Road SINC comprising field F1 within the Study Site albeit now characterised by arable land Designated sites in wider landscape sensitive to changes in water quality or recreation

Recommended avoidance / mitigation / compensation measures

Retention and protection of hedgerows along site boundaries as far as possible to maintain a functional wildlife corridor for dispersal of protected species across the wider landscape. The provision of habitat buffers sited adjacent to retained hedgerows boundaries to offset the proposed development from such features. The provision informal green space areas to accommodate sustainable drainage features and ecological mitigation whilst delivering benefits to biodiversity, amenity and recreation The adoption of measures to physically protect retained habitats during construction, including the appropriate usage of protective fencing and establishment of Ecological Protection Zones (EPZs), combined with adoption of sensitive working methodologies during site clearance; The creation of wildflower meadow grassland across proposed open areas of open green space; Marginal/aquatic planting around /SUDS features, based on likely hydrological regime; New native planting within ecological buffers and across proposed informal open green space to compensate for habitat loss whilst enhancing retained habitats in of value for wildlife including bats, birds, reptiles and invertebrates; Sympathetic garden fencing, allowing dispersal of hedgehogs and other small

mammals throughout gardens; Minimising the spillage of artificial lighting on retained and new roosting, foraging and commuting/dispersal habitats for wildlife through a sensitive lighting strategy.

Enhancements that could be delivered through development including ecological connectivity opportunities

Planting of native species including fruiting species of value as a foraging resource. Long-term management of retained and newly created habitats for wildlife. Provision of bat boxes, bird boxes and hibernacula to provide additional opportunities for protected species. Reinforcement of retained hedgerows to increase connectivity

Annex 2: Notes to Accompany Site Detail Form

Monmouthshire County Council reserve the right to amend any Site Detail Form upon detailed consideration of the site and quality assurance of the information submitted.

Site General Information

Site reference number, name, National Grid Reference, size (ha) and proposed use. 'Current Use & current management' describes the use of the site at the time of surveying and how it appears to be managed.

Overall Site Evaluation

To be completed based upon Section 4 of this guidance. One of the evaluation categories can be chosen i.e. **High** / **Medium** / **Low**. This evaluation could be subject to change upon consideration of the site and quality assurance by Monmouthshire County Council.

Summary Table

The summary table gives a quick reference guide to the ecological constraints of the site. Protected sites are considered on page ii of the form. The summary needs to show an existing protected site (**yes**), adjacent sites within 250m (**adj**) adjacent sites within 500m (**adj**) and no protected sites within 500m (**no**). Note that development can potentially affect protected sites that are further than 500m away.

The potential for consideration of horseshoe bat SAC juvenile sustenance zones is considered on page ii of the form. The summary should address whether the site falls within the site buffers (**yes**) or not (**no**).

Non-statutory sites are considered on page iii of the form. The summary needs to show an existing site (**yes**), adjacent sites within 250m (**adj**) adjacent sites within 500m (**adj**) and no protected sites within 500m (**no**).

SINC recommendation is shown on page iv of the form. The table indicates whether the whole site is recommended for SINC designation (**yes**), part of the site is recommended for SINC designation (**part**), the site may meet the criteria following further survey and examination (borderline site – **bord**), or the site is not recommended for SINC designation (**no**).

Wales Priority Habitat (Section 7) is considered according to the table on page v of the form. This shows whether these habitats cover over 50% of a site (**yes**), less than 50% of a site (**part**) or are not present (**no**).

Projected and Priority species are considered on page vii of the form. Presence (**yes**), reasonable likelihood of presence / possible presence (**poss**) and likely absence (**no**) of Protected and Priority species are indicated in the summary table.

Ecological connectivity is considered on page vi of the form. The summary table indicates the importance of that connectivity from critical (**crit**)**,** some (**conn**), to no connectivity (**no**).

Statutory Designated Sites

The information regarding designated sites shall be obtained via SEWBReC. Some interpretation of that data will need to be undertaken to establish the proximity of sites to Juvenile Sustenance Zones for horseshoe bats associated with the Wye Valley and Forest of Dean Bat Sites SAC (maternity roost SSSIs). The juvenile sustenance zone for Greater

Non Statutory Designated Sites

The information regarding SINCs/LWS sites shall be obtained via SEWBReC (site name and reason for designation). Detailed site designation forms (recommended for sites within 250m of

the Candidate Site) will be available from Monmouthshire County Council (SINCs) and Gwent Wildlife Trust (LWS).

Designated ancient woodland is defined as ancient semi-natural woodland (ASNW) – areas that have been wooded since at least 1600. ASNW is listed on Ancient Woodland Inventory 2011 and available on the Lle website. However, in Monmouthshire, a large number of ASNW are designated as SINC and shall therefore be generated during the above data search.

SINC Recommendation

This section indicates whether the whole site or part of the site meets the criteria for SINC designation in Guidelines for the Selection of Wildlife Sites in South Wales adapted for Monmouthshire. The criterion under which the site qualifies shall be noted. The LPA Biodiversity & Ecology Officers should be contacted for relevant templates and to discuss the value of the site / part of the site.

Priority Habitats and Important Features

Habitats as defined by the Phase 1 survey guidelines and Wales Priority Habitat (defined as those listed as Section 7 Habitats of Principal Importance for Conserving Biological Diversity in Wales under the Environment (Wales) Act 2016) shall be listed in the table. A % value for the habitat types shall be listed.

This information will also be demonstrated on the GIS shape files submitted to the LPA (see separate guidance).

Guidance for assessment of the importance of hedgerows and veteran/over mature trees is included in Annex 3 & 4.

Ecological Connectivity

Sites shall be assessed for existing value for connecting semi-natural habitats in the landscape using Ecological Connectivity Assessment and/or during field surveys. Both habitats and species need to be considered. Opportunities for delivery of habitat connectivity to be listed under the Enhancements section on page viii of the form.

Protected species

These tables indicate the presence or potential presence of protected species, based on SEWBReC records, the desk survey and field survey results. Species with protection or designation at several levels are listed under their highest degree of protection only.

Field signs and sightings are those recorded during the Phase 1 habitat survey.

Potential presence is based on the habitats on and adjacent to the site, the ecology of the species, and knowledge of the species distribution.

Protected Species are defined as those species listed on Schedules 2 and 4 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) or any post Brexit equivalent legislation AND Species protected under UK legislation i.e. those species listed under Schedules 5 and 8 of the Wildlife & Countryside Act 1981 (as amended) or the Protection of Badgers Act, 1992. Species protected from sale only are excluded.

Wales Priority Species are defined as those listed as species of Principal Importance for Conserving Biological Diversity in Wales under Section 7 of the Environment (Wales) Act 2016

Conclusions

Additional surveys and assessments are listed. These are based on the potential presence of protected species as detailed on page vii of the form. Any surveys that may be necessary prior to the allocation of the site should be identified e.g. horseshoe bat surveys

Potential constraints are summarised, based on the findings of the desk-based assessment and field survey, as recorded in previous sections.

Recommendations for mitigation and enhancement are suggested. These are intended as an indication only, as further survey will be needed to inform mitigation, and the design and purpose of the development will determine ecological impacts and influence mitigation and enhancement possibilities. Reference can be made to the Ecological Connectivity Assessment where appropriate.

Annex 3: Hedgerow Classification

HIGH: Species-rich containing at least five native woody species in a 30 metre sample. Consider features such as banks, ditches, standing trees, ground flora associated and connecting hedges/woodland areas.

Four woody species are recorded and other features are considered important. This would include, potential dormouse habitat.

MEDIUM: Less than five native woody species in a 30 metre stretch, without other features present.

Less than four native woody species, with other features present

LOW: Less than four native woody species, without other features present. Gappy hedges, newly planted.

Annex 4: Veteran and Over Mature Tree Classification

HIGH: Veteran trees >3.7m circumference, 1.3m from base (to include native and non-native species)

Large over-mature trees >2m circumference, or estimated to be over 200 years old, which exhibit characteristics such as dead wood, rot hollows and bracket fungi. To include native and non-native species.

Plans

Plan EDP 1	Phase 1 Habitat Plan (edp5126_d023b 12 August 2021 DJ/EW)
Plan EDP 2	Designated Sites within the Application Site's Potential Zone of Influence (edp5126_d019b 12 August 2021 DJ/EW)
Plan EDP 3:	Biodiversity Evaluation (edp5126_d035 12 August 2021 DJ/EW)

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Site Boundary

SI Poor Semi-improved Grassland

A Arable Grassland

Scattered Trees/Parkland (Broad-leaved)

Fence

Intact Species-rich Hedgerow

Intact Species-poor Hedgerow

client

Edenstone Homes

project title

Penlanlas Farm, Abergavenney

drawing title

Plan EDP 1: Phase 1 Habitat Plan

date	12 AUGUST 2021	drawn by	DJ
drawing number	edp5126_d023b	checked	EW
scale	1:1,500 @ A3	QA	RB

the environmental dimension partnership

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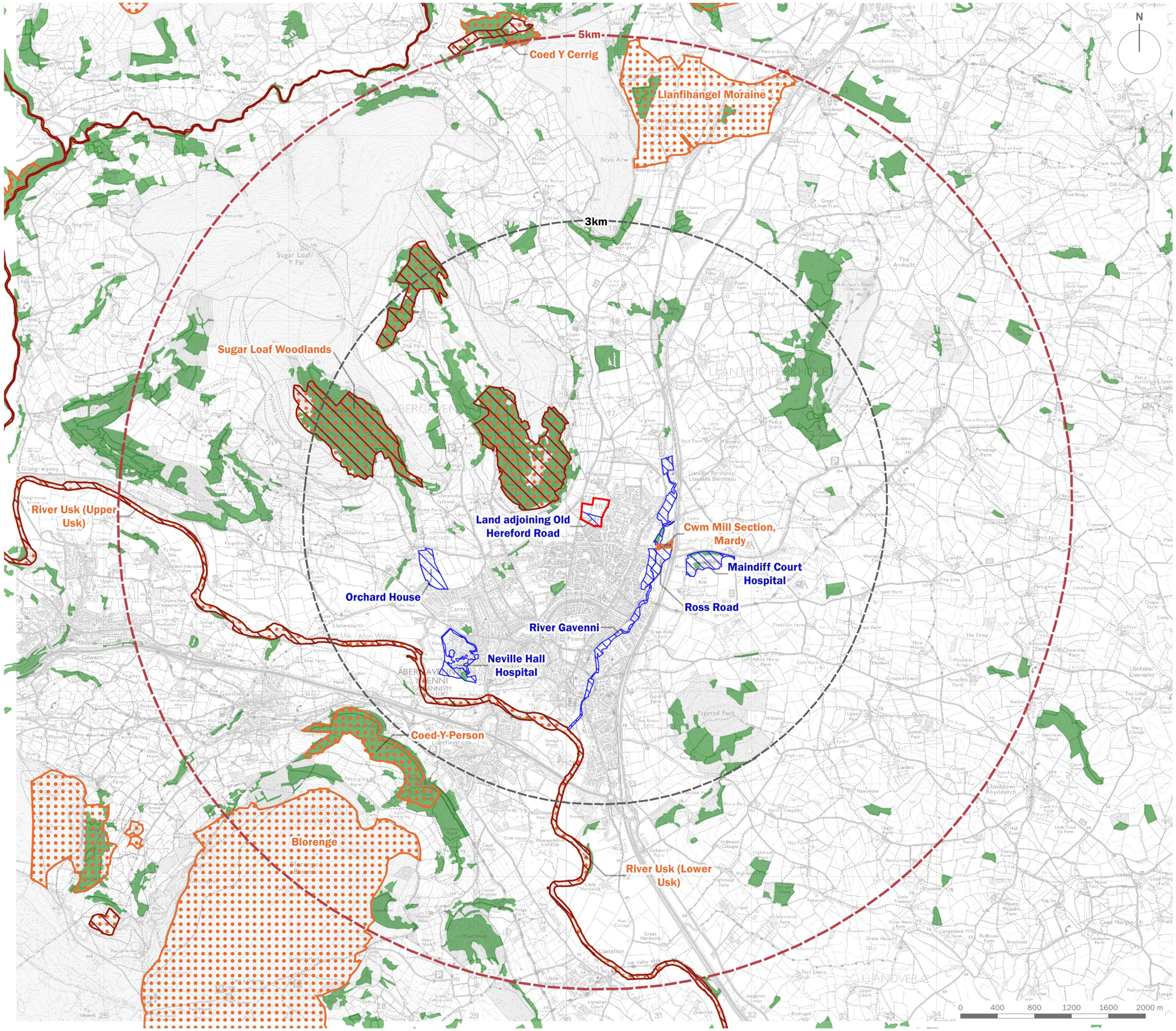

Site Boundary

3km Site Buffer

5km Site Buffer

Designated Sites

Sites of Special Scientific Interest (SSSI)

Special Area of Conservation (SAC)

Site of Importance for Nature Conservation (SINC)

Ancient Woodland

client

Edenstone Homes

project title

Penlanlas Farm, Abergavenny

drawing title

Plan EDP 2: Designated Sites within the Application Site's Potential Zone of Influence

date	12 AUGUST 2021	drawn by	DJ
drawing number	edp5126_d019b	checked	EW
scale	1:40,000 @ A3	QA	RB

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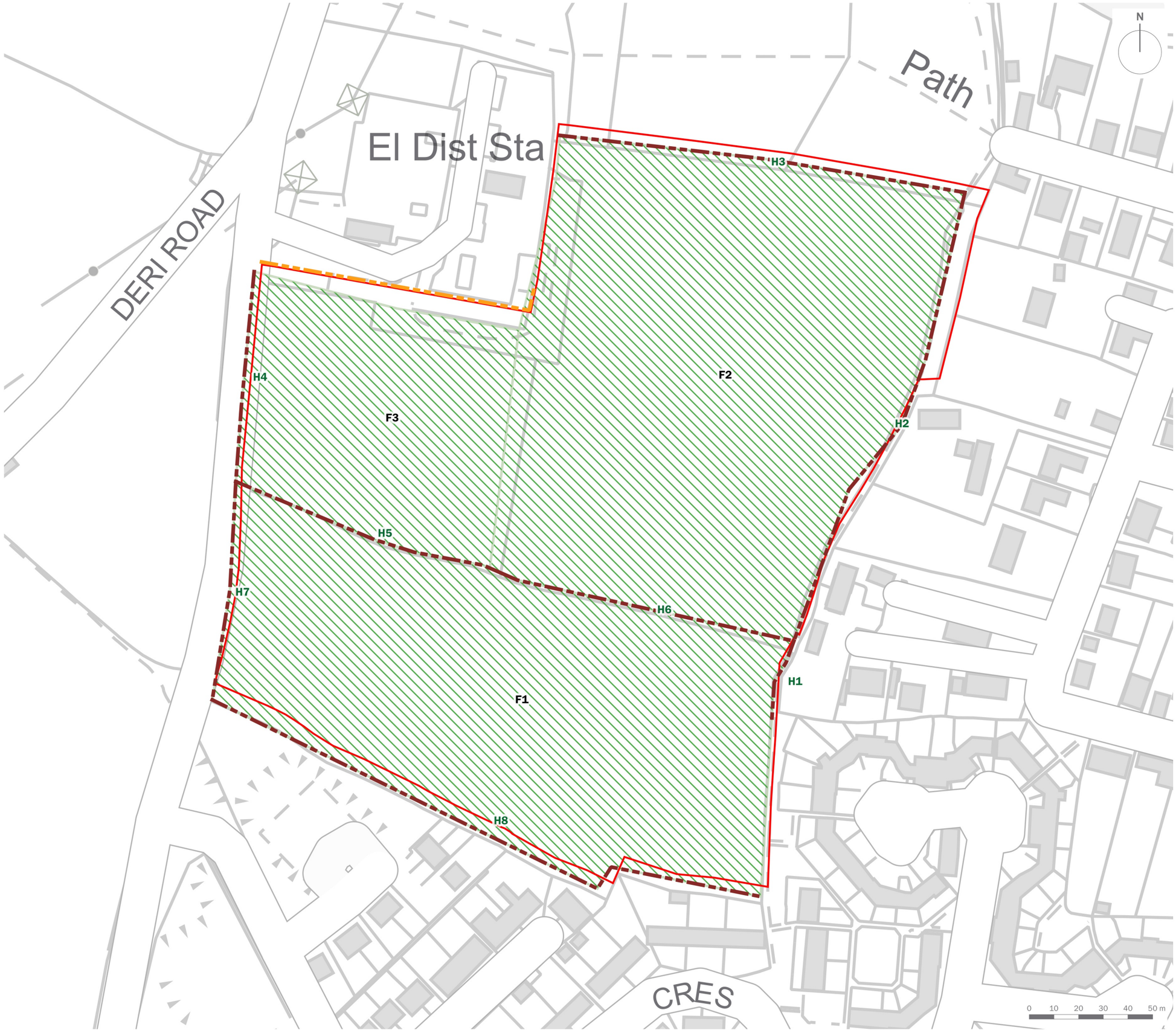

Site Boundary

High Biodiversity Value

Medium

Low Biodiversity Value

client

Edenstone Homes

project title

Penlanlas Farm, Abergavenney

drawing title

Plan EDP 3: Biodiversity Evaluation

date	**12 AUGUST 2021**	drawn by	**DJ**
drawing number	**edp5126_d035**	checked	**EW**
scale	**1:1,500 @ A3**	QA	**RB**

the environmental dimension partnership

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URBAN DESIGN GROUP REGISTERED PRACTICE

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Registered practice