



**Land at Mounton
Road, Chepstow**

**Preliminary
Ecological
Appraisal**

Prepared by:
**The Environmental
Dimension
Partnership Ltd**

On behalf of:
**Barwood
Development
Securities Ltd and
the Meade Family**

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Executive Summary

- S1 This Preliminary Ecological Appraisal has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Barwood Development Securities Ltd and the Meade Family (hereafter referred to as 'the Clients'), in relation to Land at Mounon Road, Chepstow (hereafter referred to as 'the Study Site'). This Preliminary Ecological Appraisal 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).
- S2 To establish the ecological baseline of the Study Site, a desk study, Extended Phase 1 survey and detailed botanical survey was undertaken by EDP on 18 September 2019 and updated on 06 May 2020.
- S3 With respect to designated sites, the Study Site is located within 840m of the River Wye Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI), designated for its aquatic habitats and associated protected species. There is, however, no indication of hydrological connectivity between the Study Site and the River Wye, with existing residential development separating the two. The Study Site is also situated within 840m of the Wye Valley Woodlands SAC, which, although primarily designated for its woodland habitat, also supports populations of lesser horseshoe (*Rhinolophus hipposideros*) bat. The Study Site is not, however, located within the Juvenile Sustenance Zone of this species. Nevertheless, further survey effort and consideration of the potential impacts of development on the local bat population will be required.
- S4 With respect to non-statutory designations, Parc Penterry Meadow Site of Importance for Nature Conservation (SINC) is located within 330m of the Study Site, albeit isolated from the Study Site by existing development. This is in addition to several other such designations and Ancient Woodland units within 2km of the Study Site. Given the spatial separation of these designated sites from the Study Site boundaries, no direct impacts are anticipated to arise as a result of future development. The potential for indirect impacts associated with, for example, an increase in recreational pressure or air quality, may, however arise, and will require consideration within any future planning submission.
- S5 With respect to habitats, the Study Site encompasses five fields dominated by grazed, improved grassland, whose boundaries are delineated by fence lines, defunct species-poor hedgerows, dense scrub and plantation woodland. Improved, sheep grazed grassland and dense scrub habitat is considered to be of negligible ecological importance. Native hedgerows, plantation and semi-natural woodland delineating the boundaries of the Study Site are considered to be of greater ecological importance, albeit fragmented from the wider landscape, providing suitable habitat for protected species such as dormouse (*Muscardinus avellanarius*) whose presence onsite was previously confirmed during 2012 and 2013. In addition, there are two possible veteran trees within the Study Site which are considered of ecological importance. As such, future

development proposals should seek to retain habitats of ecological importance as far as possible whilst offsetting development away from such features. Where loss is unavoidable this will need to be mitigated for within the scheme through compensatory planting, with site clearance undertaken in accordance with a European Protected Species (EPS) Development Licence approved by Natural Resources Wales (NRW) for dormouse.

- S6 Nevertheless, it is considered that there are no significant ‘in principle’ constraints to the future development of the Study Site and which cannot be avoid through implementation of a sensitive design that incorporates appropriate inherent avoidance, mitigation and enhancement measures. There is certainly the potential for future development to deliver enhancements to biodiversity through strengthening of retained woodland and hedgerow networks onsite, increasing connectivity across the wider landscape. This is in addition to the sensitive management of retained and newly created habitats in the long-term for wildlife, ensuring a scheme is delivered in accordance with national and local planning policy and wildlife legislation.

Section 1

Introduction, Purpose and Context

- 1.1 This Preliminary Ecological Appraisal has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Barwood Development Securities Ltd and the Meade Family (hereafter referred to as 'the Clients'), in relation to Land at Mounon Road, Chepstow (hereafter referred to as 'the Study Site'). This Preliminary Ecological Appraisal 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. An illustrative Masterplan is provided at **Appendix EDP 1**.
- 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 Principal Ecologist with a ten-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 and has been prepared with reference to recently published guidance issued by Monmouthshire County Council².
- 1.6 An outline planning application for residential development of the Study Site was previously submitted by Taylor Wimpey to Monmouthshire County Council in July 2013 (planning reference DC/2013/00571). To inform the planning submission a suite of

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

² Monmouthshire County Council (2020). 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 25 August 2021]

ecological surveys including a desk study, Extended Phase 1 survey and further detailed surveys for bats, breeding birds, badger (*Meles meles*), dormouse and common reptiles were undertaken by EDP during 2013. The full details of ecological surveys completed for the Study Site, available within the public domain, are provided with the Ecological Appraisal Report (reference edp1518_12a) and Ecological Survey Addendum Report (edp1518_13a) previously submitted to Monmouthshire County Council as part of the original planning application.

- 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 Council³, this report is based upon update desk study data, the findings of the Extended Phase 1 survey and detailed botanical assessment undertaken by EDP in 2019 and updated in 2020. Reference is also made to the findings of all other detailed ecological surveys previously completed for the Study Site where pertinent and publicly available.

Site Context

- 1.8 The Study Site is centred approximately at Ordnance Survey Grid Reference (OSGR) ST 524 932. The local planning authority is Monmouthshire County Council. The location and extents of the Study Site are illustrated at **Plan EDP 1**. The Study Site encompasses circa 12 hectares (ha) of agricultural farmland predominantly comprising grazed improved grassland whose boundaries are delineated by native hedgerows, unvegetated fence lines and broadleaved woodland. The northern boundary of the Study Site is delineated by patches of broadleaved woodland and residential properties with Mounon Road located beyond, whilst the eastern boundary is delineated by the A466 Wye Valley Link Road and the western boundary is bordered by plantation woodland. Agricultural fields lie adjacent to the southern and western boundaries of the Study Site.
- 1.9 The Study Site is located on the western edge of the town of Chepstow. As such, land to the immediate east is dominated by residential housing, with the River Wye situated beyond, circa 1.3km east of the Study Site. In contrast, land to the west is dominated by agricultural farmland with large woodland units and smaller residential settlements and farms.

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

³ Monmouthshire County Council (2019). Local Development Plan Ecological Site Assessments in Monmouthshire 2019/20. Available at: <https://www.monmouthshire.gov.uk/planning-policy/candidate-sites/ecological-site-assessments-of-candidate-sites/>. [Accessed on 18 July 2019]

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 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 provide 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.

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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 species⁴.
- 2.3 The desk study involved collating biodiversity information from the following sources:
- South East Wales Biodiversity Records Centre (SEWBRc); and
 - Multi-Agency Geographic Information for the Countryside (MAGIC) website⁵.
- 2.4 A desk study request to SEWBRc was undertaken during August 2019 and involved obtaining the following information:
- International statutory designations (10km radius around site);
 - National statutory designations and non-statutory local sites (2km);
 - Annex II bat species⁶ records (6km);
 - All other protected/notable species records (2km); and
 - Ancient Woodland units (2km).
- 2.5 These search areas are considered sufficient to cover the potential zones of influence⁷ of the proposed development in relation to designated sites, habitats and species.

⁴ 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.

⁵ www.magic.gov.uk

⁶ Bat species listed in Annex II of the EC Habitats Directive, namely Greater horseshoe, Lesser horseshoe, Barbastelle and Bechstein's bats.

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;⁸ and
- Any other existing assessments of the Study Site undertaken by MCC or representatives of MCC (where publicly available).

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 technique⁹, 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 Study 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 initially completed by a suitably experienced surveyor from EDP on 18 September 2019, during which the weather was 20°C with no cloud cover and dry. Following inclusion of an additional parcel of land within the proposed Study Site boundary, an updated Extended Phase 1 survey was completed on 06 May 2020.

Limitations

2.10 September and May 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, particularly given the dominance of intensively managed land.

Detailed Botanical Survey

2.11 In accordance with the methodology established by MCC for assessment of LDP Candidate Sites, a botanical survey of the Study Site was undertaken alongside the Extended Phase 1 survey on 18 September 2019 and 06 May 2020 to assess the Study

⁷ Zone of Influence - the areas and resources that may be affected by the proposed development.

⁸ 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]

⁹ 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).

Site's botanical value and to determine whether it currently meets the qualifying criteria for status as a SINC.

- 2.12 The survey adopted the DAFOR methodology¹⁰ 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).
- 2.13 The botanical values of the 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.

Limitations

- 2.14 The timing of this survey was optimal with regard to recording the plants of open ground and grassland habitats.

Detailed (Phase 2) Surveys

- 2.15 In addition to an Extended Phase 1 Survey, further detailed assessments were undertaken in relation to bats and badger to further inform potential ecological constraints in relation to future development of the Study Site, as detailed further below.

Bats

Investigations of Bat Roosting – Trees

- 2.16 During the Extended Phase 1 Habitat survey, suitable standards were subject to a ground level visual assessment with reference to current best practice guidance¹¹. The tree survey involved a ground-based visual assessment of trees for the presence of, or potential to support, roosting bats. The survey was undertaken on 18 September 2019 and updated on 06 May 2020 by a suitably qualified and licensed EDP ecologist. 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**.
- 2.17 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;

¹⁰ DAFOR botanical survey technique – whereby occurrence of a species is noted to be Dominant, Abundant, Frequent, Occasional, or Rare

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

- Cracks/splits or hollow tree trunks/limbs; and
- Thick-stemmed ivy.

2.18 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.

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

- **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

- 2.20 Visual assessments of trees for roosting bats can be undertaken at any time of year. As such, this assessment was not limited by seasonal or climatic factors.
- 2.21 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

2.22 Badger activity within the Study Site was recorded during the Extended Phase 1 survey on 18 September 2019 and 06 May 2020. During the 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 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

2.23 Dense scrub and vegetation precluded a thorough search of site boundaries. Evidence of badger may, therefore, have been missed.

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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 zone of influence and which are pertinent in the context of potential allocation of the Study Site. Further technical details are, where appropriate, provided within Appendices and/or 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 (SEWBRc). 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 a number of such designations within the Study Site's potential zone of influence, as described below/summarised in **Table EDP 3.1** and illustrated at **Appendix EDP 2** and **Appendix EDP 3**.

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

Designation	Distance from Study Site	Interest Feature(s)
River Wye SAC	Closest 840m north-east	The River Wye is designated for its assemblage of Annex I habitats including water courses of plain to montane levels with the <i>Ranunculion fluitans</i> and <i>Callitriche-Batrachion</i> vegetation. It also supports populations of white-clawed crayfish (<i>Austropotamobius pallipes</i>), sea lamprey (<i>Petromyzon marinus</i>), brook lamprey (<i>Lampetra planeri</i>), river lamprey (<i>Lampetra fluviatilis</i>), twaite shad (<i>Alosa fallax</i>), Atlantic salmon (<i>Salmo salmo</i>), bullhead (<i>Cottus gobio</i>) and otter (<i>Lutra lutra</i>), all Annex II species.

Designation	Distance from Study Site	Interest Feature(s)
River Wye SSSI	Closest 840m north-east	Similar to the above, the River Wye is designated for its aquatic habitats and assemblage of freshwater species including white-clawed crayfish, fish populations and otter, in addition to being of importance for its invertebrate assemblage.
Wye Valley Woodlands SAC	Closest 840m north-east	This SAC is designated for its assemblage of Annex I habitats including <i>Asperulo-Fagetum</i> Beech Forests, <i>Tilio-Acerion</i> Forests of slopes, screes and ravines and <i>Taxus baccata</i> woods of the British Isles. Though not a reason for selection of the site, the SAC also supports populations of lesser horseshoe bat (<i>Rhinolophus hipposideros</i>).
Pennsylvania Fields, Sedbury SSSI	1.3km east	An area of brackish pastureland overlying alluvial soils alongside the lower, tidal part of the River Wye.
Lower Wye Gorge SSSI	1.5km north-east	Designated for its woodland communities. The woods are a mixture of many types, including lime-sessile oak stands on limestone, beech (<i>Fagus sylvatica</i>) stands on both acid and alkaline soils in which lime (<i>Tilia</i> spp.), elm (<i>Ulmus</i> spp.), oak (<i>Quercus</i> spp.) and other species share dominance.
Pierce, Alcove and Piercefield Woods SSSI	2km north-east	This SSSI supports mixed semi-natural woodland comprising beech, yew and lime with a relict coppice structure and some standards.
Severn Estuary Ramsar	2.6km south-east	The Severn Estuary is designated a Ramsar Site for: its immense tidal range; presence of unusual estuarine communities, reduced diversity and high productivity; populations of migratory fish; bird assemblages of international importance; and fish species associated with the whole estuarine and river system.
Severn Estuary SPA	2.6km south-east	This SPA is designated for supporting populations of European importance, overwintering Bewick's swan (<i>Cygnus columbianus bewickii</i>) and migratory curlew (<i>Numenius arquata</i>), dunlin (<i>Calidris alpina</i>), pintail (<i>Anas acuta</i>), redshank (<i>Tringa tetanus</i>) and shelduck (<i>Tadorna tadorna</i>). The site also supports a population of European importance of passage ringed plover (<i>Charadrius hiaticula</i>) and is a wetland of international importance.

Designation	Distance from Study Site	Interest Feature(s)
Severn Estuary SAC	2.6km south-east	This SAC is designated for its assemblage of Annex I habitats including: estuaries; mudflats and sandflats not covered by seawater at low tide; and Atlantic salt meadow. Also, a qualifying feature are its populations of twaite shad (<i>Allosa fallax</i>), sea lamprey (<i>Petromyzon marinus</i>) and river lamprey (<i>Lampetra fluviatilis</i>).
Wye Valley and Forest of Dean Bat Sites SAC	Closest 3.8km north-west & 3.7km north-east	The Wye Valley and Forest of Dean Bat Sites SAC supports over a quarter of the UK's lesser horseshoe population and 6% of the greater horseshoe (<i>Rhinolophus ferrumequinum</i>) population. The site is considered particularly important for its high density of maternity roost sites and the presence of disused mines that hold nationally significant hibernation roosts of lesser horseshoe bats.

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). Additional designated sites which should be considered at this level include Local Nature Reserves (LNRs) and Ancient Woodland (AW) where these are not covered by other designations.
- 3.6 No part of the Study Site is covered by any SINCs. However, there are a number of such designations within the Study Site's potential zone of influence, as described below/summarised in **Table EDP 3.2** and illustrated at **Appendix EDP 4**.

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

Designation	Distance from Study Site	Interest Feature(s)
Parc Penterry Meadow SINC	330m north	Species-rich meadow grassland bounded by tall, overgrown.
Part of Bishop Barnet's Wood SINC/AW	660m north-west	Ancient Semi-natural Woodland and/or Plantation on Ancient Semi-natural Woodland.
Crossway Green 2 SINC (LDP Candidate Site CS/0207 and part of CS/0096) SINC	815m north	The site includes ancient woodland and an area of species rich grassland. The SINC also encompasses species-rich grassland.
Cliff Wood SINC/AW	850m west	Ancient Semi-natural Woodland and/or Plantation on Ancient Semi-natural Woodland.

Designation	Distance from Study Site	Interest Feature(s)
Crossway Green SINC (LDP Candidate Site CS/0169) SINC/AW	925m north	A large species rich meadow surrounded on three sides by roads and ancient broadleaved woodland to the west. A veteran oak is present by the eastern boundary and a rich hedgerow is found along the east and southern boundaries.
Beaufort Quarry SINC (part of LDP Candidate Site CS/0158) SINC	960m south-east	Disused quarry close to the River Wye. The top of the cliffs supports mature ash/elm woodland whilst species-rich marshy grassland is also present. Peregrine falcon (<i>Falco peregrinus</i>) breeds here.
Piercefield Avenue SINC (LDP Candidate Site CS/0168) SINC	970m north	This site is a small triangle of semi-natural broad-leaved woodland.
Piercefield Park SINC (Part of LDP candidate site CS/0029) SINC	1.01km north	A mosaic of grassland (both species rich and species poor neutral grassland), and trees with more substantial areas of woodland and scrub.
Chepstow Racecourse SINC	1.35km north	Grassland at centre of Chepstow race course; species-rich calcareous grassland.
Wallwern Wood SINC/AW	1.35km west	Ancient Semi-natural Woodland and/or Plantation on Ancient Semi-natural Woodland.
Warren Lade and Park Warren SINC/AW	1.36km south-east	Ancient Semi-natural Woodland and/or Plantation on Ancient Semi-natural Woodland.
Wyelands SINC (LDP candidate site CS/0164) SINC	1.5km south-west	A flat site with drains running along the northern and southern boundaries comprising a mosaic of marshy grassland, scrub and tall herb communities. The Wildlife Site selection criteria also identify these habitats as of potential importance to marsh fritillary butterfly and double-line moth. Potential to support otter.
Disused Lime Kiln off St Pier SINC/AW	1.6km west	Ancient Semi-natural Woodland and/or Plantation on Ancient Semi-natural Woodland.
Mathern Mill SINC	1.68km south-west	The site supports a marshy grassland community of varying structure.
Strip of Cockshoot Wood SINC/AW	1.95km north-west	Ancient Semi-natural Woodland and/or Plantation on Ancient Semi-natural Woodland.
Little Garashill Wood SINC/AW	2km north-west	Ancient Semi-natural Woodland and/or Plantation on Ancient Semi-natural Woodland.

Other Pertinent Information

- 3.7 As part of the desk study assessment, EDP undertook a review of relevant current and historical planning applications within the last five years (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: Pertinent planning proposals within the Study Site's potential zone of influence.

Planning Reference and Details	Pertinent Findings
DC/2013/00571: St Lawrence House, Mounon Road - Residential development comprising up to 200 dwellings, highway access, open space and landscaping. Application Refused.	
DC/2016/01416: The Grange, Mounon Road - Extensions and alterations to existing dwelling and erection of detached garage and home office. Application Approved.	Surveys identified supporting multiple species including common and soprano pipistrelle, myotis sp. and brown long-eared bats.
DM/2019/00013: Land at Bayfield, St Lawrence Road - Outline planning application for up to 200 homes including public open space; new vehicular, pedestrian & cycle accesses; and associated landscaping & engineering works. Decision Pending	Detailed ecological surveys undertaken to inform the planning application identified a bat assemblage importance at the local level but of lesser importance in its relation to support lesser horseshoe bats. This was in addition to a confirmed with further surveys in respect of dormouse and great crested newt confirming absence.

Existing Survey Information

- 3.8 Ecological assessments of the wider area including the Study Site were previously undertaken by Gwent Ecology under contract to MCC during 2010 to inform the selection of candidate sites put forward in MCC's Preferred Strategy (site reference CS/0214). The Study Site was reported as being dominated by agricultural land of low biodiversity value. However, woodland and species-rich hedgerows were noted to be of greater ecological importance. Overall, the Study Site was considered of Medium biodiversity value.

Monmouthshire Ecological Connectivity Assessment

- 3.9 The Ecological Connectivity Assessment undertaken by Gwent Wildlife Trust in 2010¹² identifies routes of habitat connectivity within the town of Chepstow and the wider area with identified habitat connections including the River Wye, SINC network and woodland habitat. In particular, woodland units 170m west of the Study Site are considered of particular importance in maintaining connectivity across the wider landscape. Linear features including the verges of the M48 motorway, railway and Wye Valley Link Road,

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]

the latter to the immediate south of the Study Site are further attributed some importance for connectivity.

- 3.10 Within the Study Site itself, hedgerow and woodland boundaries are relatively fragmented, limiting connectivity to habitats in the immediate landscape. However, there remains the potential to enhance connectivity within the Study Site, strengthening existing habitat corridors for protected species and other wildlife.

Habitats

- 3.11 Information on habitats within and around the Study Site was obtained during the desk study, Extended Phase 1 survey and detailed botanical assessment undertaken on 18 September 2019 and 06 May 2020. The distribution of different habitat types within and adjacent to the Study Site is illustrated on **Plan EDP 1** and further described below. The detailed results of the botanical survey are provided at **Appendix EDP 5**. Illustrative photographs are provided at **Appendix EDP 6**.

Improved Grassland

- 3.12 The Study Site comprises five distinct fields (**F1** - **F5**). The three largest are agricultural fields (**F1** - **F3**) each dominated by improved grassland habitat heavily grazed by sheep and hence characterised by a relatively short grassland sward (10cm high). Yorkshire fog (*Holcus lunatus*) and common bent (*Agrostis capillaris*) are abundant whilst perennial rye-grass (*Lolium perenne*), white clover (*Trifolium repens*), creeping buttercup (*Ranunculus repens*) and crested dog's-tail (*Cynosurus cristatus*) occur frequently. Sweet vernal is present occasionally (*Anthoxanthum odoratum*). Soft brome (*Bromus hordeaceus*) and speedwell (*Veronica* sp.) were rarely recorded along the eastern margins of field **F1** adjacent to a roadside verge whilst false oat-grass (*Arrhenatherum elatius*) is present occasionally. Stands of common nettle (*Urtica dioecia*) and spear thistle (*Cirsium vulgare*) were occasionally recorded across grassland habitat indicating enrichment of the soil from grazing livestock.
- 3.13 An additional three fields (**F4** - **F6**) are present within the far north-west corner of the Study Site and are subdivided from the rest of the Study Site by a wall and mature but defunct hedge line. The grassland community within fields **F4** and **F5** appears unmanaged although still relatively species-poor. There was no access to field **F6** but this appeared to be associated with the adjacent residential house and thus comprises amenity grassland, subject to frequent mowing. A detailed species list is provided at **Appendix EDP 5**.

Dense Scrub and Scattered Scrub

- 3.14 Small patches of dense scrub are present along the northern boundaries of the Study Site. Here, bramble (*Rubus fruticosus* agg.) is dominant although elder (*Sambruca nigra*), elm (*Ulmus* sp.), willow (*Salix* sp.) and hawthorn (*Crataegus monogynea*) are also present alongside tall ruderal vegetation dominated by common nettle. This is in addition to scattered patches of hawthorn and bramble scrub along the eastern boundary wall and fence line of field **F1**. A continuous line of dense bramble scrub delineates the

north-western boundary of the Study Site and field **F3** alongside a fence line and wall, although scattered shrubs and trees are also present, including hawthorn, elder (*Sambruca nigra*) dogwood (*Cornus sanguinea*), mature ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*).

- 3.15 The southern boundary of field **F2** is also delineated by a line of dense scrub and shrub, including semi-mature and immature trees associated with highways planting. Here, vegetation is dominated by field maple (*Acer campestre*) with occasional hawthorn and rarely holly (*Ilex aquifolium*), wild cherry (*Prunus avium*) and ash. A ground flora community is dominated by common ivy (*Hedera helix*) with occurrences of ground ivy (*Glechoma hederacea*), cleavers (*Galium aparine*), Lords-and-ladies (*Arum maculatum*), meadow crane's-bill (*Geranium pratense*) and herb-robert (*Geranium robertianum*). The vegetation is subject to some maintenance from the adjacent highway with evidence of littering also recorded.
- 3.16 Located almost centrally within field **F1** is a line of scattered hawthorn trees, presumably the remains of a former hedgrow but now defunct with no connectivity to the wider hedgrow network.

Native hedgerows

- 3.17 Internal field boundaries of the Study Site are represented by native hedgerows and trees. The hedgerow network is, however, predominantly defunct and heavily poached by grazing livestock. As such, a ground flora community is limited, with scattered patches of common nettle over bare ground.
- 3.18 **H1**, delineating the boundary between fields **F1** and **F3**, comprises a defunct line of mature shrubs which has established over a shallow bank and remains of a wall. The hedgerow is species-poor. Hawthorn is dominant whilst sycamore, ash, elder, holly (*Ilex aquifolium*) and hazel (*Corylus avellana*) are also present. Bramble also dominates within some sections.
- 3.19 **H2** is a species-poor, outgrown, shrubby hedgerow delineating the boundary between field **F1** and **F2**. Up to 8m tall and 1m wide this hedgerow was formerly planted on a shallow bank. The hedgerow is dominated by hawthorn with occasional blackthorn and immature ash trees.
- 3.20 **H3**, delineating the north-western boundary between field **F1** and **F4-F5** comprises a line of mature and semi-mature trees represented by coppice hazel, holly and ash. Further east, hawthorn occurs occasionally whilst blackthorn is also present.

Plantation Broadleaved Woodland

- 3.21 The south-western boundary of field **F1** and **F2** is delineated by a circa 26m wide strip of broadleaved plantation woodland. A survey from the woodland edge identified frequent ash and hazel with occasional silver birch (*Betula pendula*), alder (*Alnus glutinosa*) hawthorn, oak, blackthorn and sycamore. Wild cherry (*Prunus avium*) and dogwood is also present. An understorey is relatively diverse and includes hazel, elder, field maple

and dogwood. The margins of the woodland are fronted by dense bramble in places, with some traveller's joy (*Clematis vitalba*). Bramble is also the dominant species within the woodland understory, whilst a ground flora community is large characterised by common ivy (*Hedera helix*) with occurrences of Lords-and-Ladies.

- 3.22 An additional area of semi-mature plantation woodland lies in the north-west corner of the Study Site. Here, silver birch is dominant with ash abundant. Also present are field maple, hawthorn and pedunculate oak (*Quercus robur*).

Semi-natural Broadleaved Woodland

- 3.23 A small area of woodland also lies adjacent to the central northern boundary of the Study Site, dominated by mature and semi-mature ash and sycamore standards with an understorey characterised by scattered occurrences of holly, hawthorn and laurel (*Laurus sp.*). The ground flora community is again very limited due to the over shading of the canopy. Evidence of intrusion from non-native and garden variety species was also recorded, with cotoneaster (*Cotoneaster sp.*) present in addition to garden waste.

Scattered Trees

- 3.24 In addition to mature and semi-mature trees associated with hedgerow and woodland boundaries, there are several tree standards and tree groups scattered across agricultural fields. Such standards are typically represented by semi-mature and mature sycamore, large-leaved lime (*Tilia platyphyllos*) and horse chestnut (*Aesculus hippocastanum*). This is in addition to several non-native/ornamental trees along the northern boundary of the Study Site including holm oak (*Quercus ilex*), atlas cedar (*Cedrus atlantica*) and cedar of Lebanon (*Cedrus libani*). Fields **F4** and **F5**, meanwhile, support several fruiting trees dominated by apple (*Malus sp.*) and plum (*Prunus sp.*) trees, with occasional hawthorn.
- 3.25 Of particular note are the two likely veteran horse chestnut trees (**T29** and **T28**). The latter has, however, fallen since it was last surveyed. Following an update Phase 1 survey on 06 May 2020, it was noted that **T29** has suffered storm damage, with the crown sheared off. In addition, a possible veteran English oak (**T2**) was recorded within the plantation woodland along the western boundary of the Study Site.

Tall Ruderal Vegetation

- 3.26 Patches of tall ruderal vegetated are present within field **F1** as well as along its boundaries and the boundaries of field **F2**. Here, tall rural vegetation is dominated by common nettle with occasional creeping thistle (*Cirsium arvense*).

Habitat Overview and Assessment against SINC Criteria

- 3.27 The Study Site is dominated by agricultural land of limited botanical and ecological importance albeit with the potential to support protected species. Although woodland and native hedgerows are of greater ecological value, such features are largely defunct. With respect to woodland habitats, these are relatively small in extent and, with the exception

of plantation woodland along the western boundary, are limited in their connectivity to the wider hedgerow and woodland network offsite.

- 3.28 Overall, the Study Site has low botanical diversity with no species of particular note recorded. Grassland habitats lack sufficient indicator species to satisfy SINC designation requirements for neutral/marshy/calcareous grassland. Grassland habitat which dominates the Study Site is thus considered of low/limited ecological importance.
- 3.29 Of particular pertinence, however, **T29** and **T2** are considered to likely qualify as veteran trees. **T28**, identified as a veteran tree during 2013 has since fallen.
- 3.30 With respect to hedgerows recorded onsite and with reference to guidance issued by MCC, **H1** - **H2** are considered to be of moderate importance due to their limited botanical diversity and gappy and defunct nature, albeit often recorded in association with hedgerow features (for example, banks) as well as offering some habitat for dormouse. **H3**, in contrast, is considered to be of low importance.

Protected and/or Notable species

- 3.31 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.
- 3.32 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

- 3.33 A relatively large number of records of bird species within 2km of the Study Site were returned by SEWBRc during the desk study and which include several Schedule 1 species, species listed on Section 7 of the Environment (Wales) Act 2016, and/or RSPB red/amber listed species. Several of these were typically recorded in associated with locally designated sites in the wider landscape.
- 3.34 Records of Schedule 1 species within 2km of the Study Site include fieldfare (*Turdus pilaris*), brambling, peregrine falcon, hobby (*Falco subbuteo*), and redwing (*Turdus iliacus*) whilst records for barn owl (*Tyto alba*) were returned within circa 100m of the Study Site.
- 3.35 A number of other priority species have also been recorded within 2km, including bullfinch (*Pyrrhula pyrrhula*), starling (*Sturnus vulgaris*), marsh tit (*Poecile palustris*), willow tit (*Poecile montanus*), black-headed gull, yellow wagtail, lapwing (*Vanellus vanellus*), spotted flycatcher (*Muscicapa striata*) and kestrel

(*Falco tinnunculus*), a red listed species of conservation concern¹³. Amber listed species for which desk study records were returned include house sparrow (*Passer domesticus*), song thrush (*Turdus philomelos*), skylark (*Alauda arvensis*) and red kite (*Milvus milvus*) amongst others.

- 3.36 Breeding bird surveys undertaken in April, May and June 2013 to inform a historical planning application for the Study Site identified 22 bird species within the Study Site, 13 of which were confirmed breeding, with boundary habitats supporting the most species. Of those breeding, only one species, song thrush, was of conservation concern in Wales. Overall, the bird assemblage recorded was considered fairly typical for the range and quality of habitats present.
- 3.37 Generally, dense scrub, native hedgerows and woodland habitat within and adjacent to the Study Site provides suitable foraging and nesting resource for an assemblage of common woodland and garden birds. Agricultural land within the Study Site provides potential foraging and nesting habitat for ground nesting birds such as skylark and lapwing but is likely to be of limited importance to these species given frequent disturbance posed by grazing livestock, although such habitats likely provide a foraging resource.

Bats

- 3.38 The data search returned a number of records for bat roosts within 2km of the Application Site, including a brown long-eared bat (*Plecotus auritus*) day roost 1.13km south of the Study Site, multiple low status common pipistrelle (*Pipistrellus pipistrellus*) roosts between 500m and 930m of the Study Site and a roost for *Myotis* sp. within 2.3km of the Study Site. With respect to Annex II species, a desk study returned a record for a lesser horseshoe bat roost within 1.1km of the Study Site in addition to several lower status roosts and a hibernation roost for this species. Of particular pertinence, a greater horseshoe bat maternity roost is present within 2.7km of the Study Site whilst records generated from radio tracking surveys have also indicated presence of a roosts for Bechstein's (*Myotis bechsteinii*) and barbastelle (*Barbastella barbastellus*) bats within 6km of the Study Site.
- 3.39 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, *Myotis* sp., noctule (*Nyctalus noctula*), serotine (*Eptesicus serotinus*), Daubenton's, Natterer's, Whiskered (*Myotis mystacinus*), lesser horseshoe, brown long-eared and greater horseshoe bats. This is in addition to a several records for Bechstein's bat in association with woodland habitats.
- 3.40 Bat activity surveys undertaken during September and October 2012 and between May and July 2013 to inform a previous planning application for the Study Site identified presence of common pipistrelle, soprano pipistrelle, possible Nathusius' pipistrelle (*Pipistrellus nathusii*), noctule, serotine, *Myotis* sp. and lesser horseshoe bats, whilst

¹³ 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

automated bat detector surveys undertaken during September and October 2012 additionally identified the presence of greater horseshoe bats.

- 3.41 The Study Site is considered suitable for foraging and commuting bats, providing grazed pasture and woodland habitats, whilst boundary hedgerows provide a linear feature for dispersal of a bat population across the Study Site and wider landscape. In addition, mature trees scattered across the Study Site provide potential roosting opportunities. Overall, the Study Site is considered to be of low to moderate importance for a bat assemblage.

Investigations of Bat Roosting – Trees

- 3.42 An initial visual assessment of on-site trees identified five trees with high potential to support roosting bats, nine trees with moderate potential and one tree with low potential to support roosting bats. Trees with bat roosting potential are illustrated on **Plan EDP 1** with further details provided within **Table EDP 3.4**.

Table EDP 3.4: Ground Level Assessment Results.

Tree No.	Species	Comments	Bat Roosting Potential/Confirmed
T2	Oak	Oak with very large cavity in trunk and numerous rot holes. Limb hole at 12m. Several rotted limbs in canopy and lower branches.	High
T13	Horse Chestnut	Several broken branches and split limbs.	Moderate
T16	Scots pine	Limb hole 15m high.	Moderate
T29	Horse Chestnut	Horse chestnut with large cavity in trunk and several knot holes. The crown has broken off following storm damage. Fungal bodies in stem. Rot and cavities in branches. Hazard beam at 12m. Large cavities lowest remaining limb where trunk has sheared off.	High
T31	Ash	Multi-stemmed ash with a cavity at the base of a large fallen branch and flaking bark. Rot in limbs.	Moderate
T31a	Ash	Mature ash with dense ivy cover.	Moderate
T37	Ash	Ash with hazard beam in branch.	Moderate
T34	Sycamore	Sycamore with limb holes.	Moderate
T35	Ash	Ash with limb holes and flaking bark	High
T38	Sycamore	Large rot hole within a branch. Smaller hole in tree trunk.	High
T39	Sycamore	Two holes in trunk potentially leading into a larger cavity.	High
T40	Large-leaved Lime	Lime with limb holes and large mass of epicormic growth.	Moderate
G41a	Ash	Ash with limb holes.	Low
G42a	Hawthorn	Woodpecker holes and flaking bark	Moderate
T47	Large-leaved lime.	Lime with several rot and limb holes.	Moderate

Badger

3.43 [REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

Table EDP 3.5: Badger Survey Results.

Sett Number	Description	Status and Classification
[REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED]
[REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED]

3.46 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Dormouse

- 3.47 SEWBRc returned two records of dormouse from 2015 and 2016 for the Study Site, whilst nest tube surveys undertaken across the Study Site in 2012 and 2013 to inform a planning application identified dormouse and their nests within the plantation woodland which defines the western boundary.
- 3.48 Indeed, the Extended Phase 1 survey identified suitable habitat within the Study Site for dormouse, including plantation woodland and hedgerows. Suitable habitat within the Study Site's interiors however, are largely isolated, with no arboreal connection to plantation woodland along the western boundary and woodland blocks present along the northern boundary of the Study Site. In addition, the two species-poor hedgerows (**H1** and **H2**) identified during the Extended Phase 1 survey provide only limited connectivity to the north and east of the Study Site given their low species diversity and gappy nature.

Otter and Water Vole

- 3.49 Multiple records for otter within 2km of the Application Site were returned by SEWBRc and are typically associated with the River Wye, situated 1km east of the Study Site. Three road mortalities were also recorded along the M4 motorway circa 1.6km south of the Study Site. No records for water vole (*Arvicola amphibius*) within 2km of the Study Site were returned during the desk study.
- 3.50 There is no suitable aquatic habitat for either species within the Study Site such that both otter and water vole are presumed absent.

Great Crested Newt

- 3.51 No records for great crested newt (*Triturus cristatus*) were returned by SEWBRc during a desk study. A record for common frog (*Rana temporaria*) 1.25km north-east was returned, however.
- 3.52 Dense scrub and woodland habitat provide suitable foraging and refuge opportunities for great crested newt. However, such habitats are fragmented, with grazed improved grassland dominating the Study Site and of negligible suitability for this species. Furthermore, there is no aquatic habitat onsite or within 500m of site boundaries, whilst Mounton Road to the north and Wye Valley Link Road to the east are considered significant barriers of the dispersal of this species. Great crested newt is thus presumed absent from the Study Site.

Reptiles

- 3.53 A desk study returned a single record for slow-worm (*Anguis fragilis*) 945m east of the Study Site. Reptile surveys undertaken during 2013 to inform a planning application did not record any reptiles however.

- 3.52 The Study Site comprises suitable habitat for a reptile population confined to field boundaries, woodland habitat and dense scrub. Sheep grazed grassland which dominates the Study Site is considered of limited value to a population, however. As such, common reptile species are not considered a constraint to future development of the Study Site.

Other Species Potential Supported

Mammals

- 3.53 A single record for weasel (*Mustela nivalis*) situated within the Study Site was returned by SEWBRc. Additionally, multiple records for European hedgehog (*Erinaceus europaeus*) were recorded within 2km of the Study Site the closest of which is circa 260m north of the Study Site. Habitats supported by the Study Site, namely woodland and dense scrub may provide suitable cover for these species.

Invertebrates

- 3.54 The desk study returned limited records for notable invertebrate species within 2km of the Study Site. Records for white admiral (*Limenitis Camilla*) and drab looper (*Minoa murinata*), both red data book species were, however, returned whilst local priority species recorded within 2km of the Study Site, include scarce hook-tip (*Sabra harpagula*), large wainscot (*Rhizedra lutosa*) and grass rivulet (*Perizoma albulata*).
- 3.55 None of these species are considered likely to occur within the Study Site owing to the lack of suitable habitat or food larval plants.

Biodiversity Evaluation

- 3.56 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 Medium) on the following basis:
- The Study Site is within a 500m buffer of the Parc Penterry Meadow SINc;
 - Presence of veteran trees;
 - The Study Site of existing 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 but unlikely to prevent development subject to implementation of appropriate mitigation and compensation.

- 3.57 The Study Site does not contain any 'important' hedgerows¹⁴, is not designated as a SINC/Ancient Woodland and is not situated within the Juvenile Sustenance Zone¹⁵ of a Wye Valley Forest of Dean Bat Sites SAC Maternity Roost SSSI. A Site Summary Form is provided at **Appendix EDP 7**.

¹⁴ As defined by the wildlife and landscape criteria of the Hedgerow Regulations 1997

¹⁵ Monmouth County Council (2019). Local Development Plan Ecological Site Assessments in Monmouthshire 2019/20. Available at: <https://www.monmouthshire.gov.uk/planning-policy/candidate-sites/ecological-site-assessments-of-candidate-sites/>. [Accessed on 18 July 2019]

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Section 4

Summary and Conclusions

- 4.1 This Preliminary Ecological Appraisal has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Barwood Development Securities Ltd and the Meade Family, in relation to Land at Mounton Road, Chepstow. This Preliminary Ecological Appraisal 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.
- 4.2 With respect to designated sites, the Study Site is located within 840m of the River Wye SAC and SSSI, designated for its aquatic habitats and associated protected species. Any development proposals which will result in an increase in residential units may have potential impacts upon this designation as a result of increased phosphorus loading from receiving sewage treatment works STW to this watercourse. The Study Site is, however, located outside the phosphorus sensitive area for this catchment¹⁶ such that the potential for significant negative effects from increased sewage effluent is unlikely. There is, furthermore, no indication of hydrological connectivity between the Study Site and the River Wye with existing residential development subdividing the two such that impacts associated with increased contaminated surface water runoff from the Study Site to the River Wye is unlikely. Nevertheless, and inherent within a Illustrative Masterplan is the provision of attenuation features, predominantly along the south-western boundaries of the Study Site south-west corner of the Study Site to manage surface water runoff from proposed development.
- 4.3 The Study Site is, also located within 840m of the Wye Valley Woodlands SAC, which although primarily designated for its woodland habitat, also supports populations of lesser horseshoe bat. The Study Site is not, however, located within the Juvenile Sustenance Zone¹⁷ of this bat species or for greater horseshoe bat. Further survey effort and consideration of the potential impacts of development on the local bat population will, therefore, be required. The Illustrative Masterplan has, however, sought to retain features of value for a bat assemblage including plantation woodland along the western boundary of the Study Site which serves as a potential wildlife corridor for the dispersal of a bat assemblage between their roosts and foraging grounds in the wider landscape. This will be further protected through the inclusion of habitat buffers adjacent to retained habitats in operating areas of open green space and sustainable drainage features, and which offers opportunities for new planting and habitat creation.
- 4.4 With respect to non-statutory designations, the Parc Penterry Meadow SINC is located within 330m of the Study Site, albeit isolated from the Study Site by existing development. This is in addition to several other such designations and

¹⁶ https://www.monmouthshire.gov.uk/app/uploads/2021/02/Phosphorus_pdf.pdf

¹⁷ Monmouthshire County Council (2019). Local Development Plan Ecological Site Assessments in Monmouthshire 2019/20. Available at: <https://www.monmouthshire.gov.uk/planning-policy/candidate-sites/ecological-site-assessments-of-candidate-sites/>. [Accessed on 18 July 2019]

Ancient Woodland units within 2km of the Study Site. Given the spatial separation of these designated sites from the Study Site boundaries, no direct impacts are anticipated to arise as a results of future development. The potential for indirect impacts associated with, for example, an increase in recreational pressure or air quality may, however arise.. Inherent within the Illustrative Masterplan, however, is the provision of areas of open green space, particularly across the western extents of the Study Site which offers alternative, onsite opportunities for recreation.

- 4.5 The Extended Phase 1 survey and DAFOR botanical survey was undertaken by a suitably experienced and licensed EDP surveyor on 18 September 2019 and 06 May 2020 to provide an assessment of potential constraints to future development whilst identifying the scope of any further survey work required to inform a planning application submission. With respect to habitats, the Study Site encompasses five fields dominated by grazed, improved grassland whose boundaries are delineated by fence lines, defunct species-poor hedgerows, dense scrub and plantation woodland. Improved, sheep grazed grassland and dense scrub habitat is considered to be of negligible ecological importance. Native hedgerows and plantation woodland delineating the boundaries of the Study Site, however, are considered to be of greater ecological importance, albeit fragmented from the wider landscape, and provide suitable habitat for protected species most notably dormouse whose presence onsite was previously confirmed during 2012 and 2013.
- 4.6 Following an assessment of the Study Site against SINC criteria none are considered to fulfil SINC designation requirements, although native hedgerows are considered to be of moderate importance whilst two standing trees likely qualifying as veteran in nature are present.
- 4.7 As such, the Illustrative Masterplan has sought to retain habitats of greater ecological value as far as possible including woodland within and adjacent to the Study Site in addition to veteran trees whilst offsetting development from such ecological features through the inclusion of habitat buffers and open green space adjacent. There will, however, be some loss of hedgrow habitat to facilitate development. Such impacts are considered reduced given the highly defunct nature of the hedgerow resource onsite. Nevertheless, this loss will need to be mitigated within the scheme through suitable compensatory planting, with site clearance undertaken in accordance with an EPS Development Licence for dormouse approved by NRW. It is considered that the Study Site does, however, offer sufficient and flexible opportunities for the provision of new planting to mitigate for habitat loss as well as provide a biodiversity enhancement through the implementation of a long-term sensitive management regime which promotes the botanical and structural diversity of retained and newly created habitats of value to wildlife.
- 4.8 Overall, it is considered that there are no significant 'in principle' constraints to the future development of the Study Site and which cannot be avoid through implementation of a sensitive design that incorporates appropriate inherent avoidance, mitigation and enhancement measures. There is certainly the potential for future development to deliver enhancements to biodiversity through strengthening of retained woodland and hedgerow networks, increasing connectivity across the wider landscape.

- 4.9 Further detailed surveys will, however, be required to inform a future planning application and ensure proposed mitigation is appropriate and proportional. Recommended survey effort is detailed in **Table EDP 4.1** below:

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

Survey Type	Description
Bat Tree Assessment	Any trees present onsite with moderate or high potential to support roosting bats should be subject to detailed aerial inspection to confirm presence/infer absence of roosting bats. Further formal ground level assessments of all trees within the working footprint is, furthermore recommended once a fixed masterplan for development proposals has been established.
Bat Activity Surveys	Although hedgerow corridors across the Study Site are largely defunct, they nevertheless provide a linear feature for bats commuting across the landscape, whilst grazed pasture and plantation woodland provide a foraging resource. Bat activity surveys undertaken between September 2012 and June 2013 identified the Study Site to be of low to moderate importance for a bat assemblage. Although Annex II bat species were recorded onsite, results indicated that the Study Site does not represent a significant foraging resource for this species group. Nevertheless, update survey effort comprising manual transect and automated bat detector surveys will be required to inform any future planning submission.
Badger	[REDACTED]
Dormouse	Woodland and hedgerow boundaries and dense scrub provide suitable habitat for this species whilst dormouse presence has been confirmed following the completion of nest tube surveys undertaken between September 2012 and November 2013, albeit limited in distribution to the plantation woodland defining the western boundary of the Study Site. In respect of the time that has elapsed since the Study Site was last assessed for this species update nest tube surveys combined with a search for nibbled hazel nuts (where present) will be required to inform a future planning application.

- 4.10 **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	Breeding bird surveys undertaken during recorded a bird assemblage dominated by common resident passerines with a small migrant songbird that are fairly typical for the range and quality of habitats present. Given the nature of those habitats supported, no further breeding or winter bird surveys are considered necessary to inform a future planning applications, although precautionary measures during future site clearance should be adopted to avoid harm/injury in the unlikely event a reptile population is identified.

Survey Type	Reasons for Scoping Out
Otter/Water Vole	No suitable habitat for these species exists on or adjacent to the Study Site. As such, no further detailed surveys are considered necessary to inform the application.
Great crested newt	No records of great crested newt within 2km of the Study Site were returned by SEWBRc during a desk study. There is, furthermore, no aquatic habitat for this species onsite or within 500m of site boundaries. Combined with the sub-optimal suitability of onsite habitats, this species is thus presumed absent.
Reptiles	Previous survey effort undertaken between April and September 2013 identified no evidence of common reptiles within the Study Site. Update survey effort may be required to confirm continued absence. However, in respect of the limited extent of suitable habitat no further survey effort to validate a future planning application would be necessary assuming the incorporation of sufficient areas of informal open space onsite within any future development layout. 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 boundary features, the Study Site is considered unlikely to support a notable and diverse invertebrate assemblage such that no further surveys are proposed.