

Preliminary Ecological Appraisal

for

Land adjacent to 189 Graig Road, Godrergraig



Project data

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**Koru
Ecology
Associates**

Koru Ecology Associates
Killay, Swansea
07591 504840

koruecologyassociates@gmail.com

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1 Summary

1.1 Site Assessment

1.1.1 A Preliminary Ecological Appraisal (PEA) – including a desk study, Phase 1 Habitat survey and assessment for protected/notable species suitability – has been completed for an area of land adjacent to 189 Graig Road in Godrergrraig, in relation to the proposed construction of a new dwelling.

1.1.2 A number of potential ecological features have been identified in relation to the development proposals, and include the following:

1. One Local Nature Reserve (LNR).
2. One Site of Importance for Nature Conservation (SINCs).
3. Several areas of restored ancient woodland.
4. Areas of amenity grassland and scrub.
5. Habitat with suitability for low numbers of reptile and amphibian species, together with small mammals including hedgehogs.
6. Habitat with suitability for foraging/commuting bats and badgers.
7. Habitat with suitability for foraging/nesting birds.

1.2 Recommendations

1.2.1 A number of recommendations are given in the report in order to keep potential impacts on habitat and species receptors to a minimum and ensure net benefit for biodiversity. These are given within Section 6 and Appendix 1 of this report.

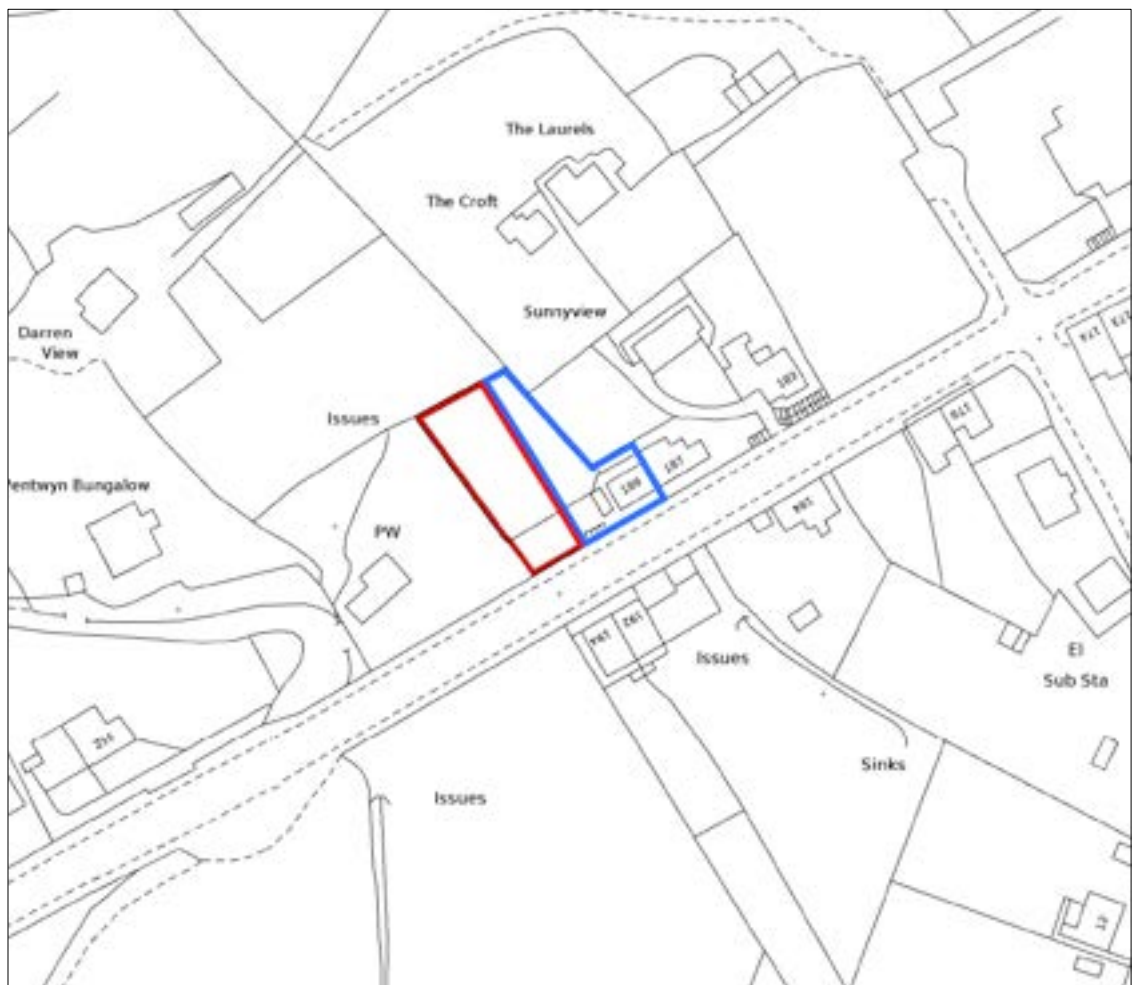
1.2.2 Repeat surveys are recommended if a period of more than two years elapses between the date of this survey and commencement of the works.

2 Introduction

2.1 The Proposed Development

- 2.1.1 Koru Ecology Associates was commissioned in April 2022 by June and David Williams (“the Applicant”) to complete a Preliminary Ecological Appraisal (PEA) of land adjacent to 189 Graig Road in Godrergrraig, Ystalyfera (“the Site”).
- 2.1.2 The Site is centred on approximate National Grid Reference SN7505506797, and its location is shown in Figure 1 below.

Figure 1. Site location.



- 2.1.3 This report has been prepared as part of a planning application to Neath Port Talbot council for the construction of a new three-bedroom detached property, together with associated driveway and re-landscaping of the rear garden.

2.2 Study Aims

- 2.2.1 This report considers the potential impacts of the proposed development on ecological features identified within the Site, and/or its surroundings. The report details the methodology (Section 3) and results (Section 4) of the survey, describing features of ecological value found to be present, and impacts that may occur (Section 5). The report also gives recommendations for actions that should be undertaken by the Applicant to help minimise development impacts, as well as result in net benefit to biodiversity (Section 6).

3 Methodology

3.1 Study Scope

3.1.1 Koru Ecology Associates was commissioned by the Applicant in April 2022 to complete a PEA of the Site, based on standard methods set out by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017). This included the following:

1. **Desk-based study.** Written consultation with consultees, together with interrogation of online databases, to identify statutory and non-statutory designated sites of nature conservation importance, as well as records of protected and/or notable species.
2. **Phase 1 Habitat Survey.** To record the nature and extent of vegetation and habitats within and immediately adjacent to the Site.
3. Identification and/or assessment of potential for protected/otherwise notable flora and fauna that may require **further species-specific surveys**, together with any requirements for mitigation or potential mitigation.
4. Identification of **opportunities for ecological enhancement**.

3.1.2 A more detailed description of tasks 1 – 3 is provided in Sections 3.4 – 3.6 below.

3.2 Surveyor Qualifications and Experience

3.2.1 Diana Clark MSc MCIEEM led all survey work and wrote this report. Diana has worked as a consultant ecologist since 2003 and holds two degrees in related disciplines. She is also a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM), and Koru Ecology Associates is a CIEEM Registered Practice.

3.2.2 This report has been subject to technical review by Steve Hancock CEnv MCIEEM. Steve has worked as a consultant ecologist since 2009 and holds a degree in a related discipline. Steve is a Chartered Environmentalist and a full member of CIEEM.

3.3 Study Limitations

- 3.3.1 Every effort was made during the field visit to complete a comprehensive survey and produce a detailed description of the Site. However, no investigation can ensure the complete characterisation and prediction of the environment 100% of the time. Natural and semi-natural habitats change over time, and thus results given in this report may become less reliable in the future. Repeat surveys are usually recommended if a significant period of time elapses between when surveys were completed and when works commence. Further details are given in Section 6 of this report.
- 3.3.2 No significant constraints were noted in relation to this project. Where minor constraints occurred, these are described within the relevant methodology and/or results sections of this report.

3.4 Desk Study

- 3.4.1 Due to the size of the site (< 0.1ha) and the nature of the development proposals (a single dwelling and associated garden), desk study data from a wide area was considered unlikely to add anything to the assessment or affect the recommendations of this report. Records of protected and/or otherwise notable species within 500m of the Site were therefore requested from the South East Wales Biodiversity Records Centre (SEWBRc) in May 2022 (reference number 6972415). Records of designated sites within the same search area were requested at the same time.
- 3.4.2 Further details in relation to any designated sites identified were sought via the Joint Nature Conservancy Council (JNCC) website (www.jncc.defra.gov.uk) and the Natural Resources Wales (NRW) website (www.naturalresourceswales.gov.uk) where necessary.

3.5 Phase 1 Habitat Survey

- 3.5.1 Diana Clark MSc MCIEEM conducted a Phase 1 Habitat Survey of the Site on the 4th May 2022. Vegetation types and habitats present were described and mapped during a walkover of the Site, based on standard published guidelines for Phase 1 Habitat Survey (JNCC, 2010). Features of particular interest were recorded as Target Notes (TNs).

3.6 Assessment of Protected/Notable Species Potential

- 3.6.1 In addition, the habitats within the Site were appraised for their suitability to support protected or notable species, or assemblages that could be sensitive to the proposed development, in accordance with 'Guidelines for Baseline Ecological Assessment' (IEA, 1995).
- 3.6.2 The protected and notable habitats and species referred to above include those listed under the Wildlife and Countryside Act 1981 (as amended); The Conservation of Habitats and Species Regulations 2017 (as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019); and Species and Habitats of Principal Importance in England/Wales – currently listed under the Natural Environment and Rural Communities (NERC) Act 2006 but also endorsed by the Environment (Wales) Act 2016 (see Section 5 for more information).
- 3.6.3 During the survey, consideration was given to features such as potential breeding bird habitat, bat roosting locations, reptile habitat and the suitability of other features for protected/otherwise notable species. Exotic and invasive species (e.g. Japanese knotweed *Reynoutria japonica*, Himalayan balsam *Impatiens glandulifera* and giant hogweed *Heracleum mantegazzianum*) were noted by the surveyor, if present.
- 3.6.4 The survey approach taken is designed to identify broad habitat types and the potential of these habitats to support notable/protected species, thereby providing an overview of the ecological interest at a site. It is the most widely used and professionally recognised method for initial ecological site appraisal.

4 Results

4.1 Site Context

4.1.1 The Site is located roughly in the centre of the small linear settlement of Godrergrraig near Ystalyfera. The Site forms part of the garden of an existing property (189 Graig Road) and is bordered to the west and east by similar residential property gardens, with Graig Road forming the southern boundary. The rear (northern) boundary backs on to an area of woodland, beyond which is wider open countryside. To the south, on the far side of Graig Road, there is further housing associated with Gnoll Road, beyond which is the A4067 and the River Tawe.

4.1.2 The Site context is shown in Figure 2 below.

Figure 2. Site context.



4.2 Designated Sites

- 4.2.1 No nationally or internationally designate sites are located within the search area.
- 4.2.2 One Local Nature Reserve (LNR) (Swansea Canal) and one Site of Importance for Nature Conservation (SINC) (Neath Port Talbot (NPT) Watercourse) were identified within the desk study search area. Both sites are designated due to the presence of a linear waterbody, alongside good assemblages of flora and fauna.
- 4.2.3 In addition, three areas of restored ancient woodland are located within the search area, the nearest is approximately 100m away to the south west.

4.3 Notable Species Records

- 4.3.1 Due to confidentiality requirements of the biological records centre, a copy of the full desk study report is not included here. However, a summary of the most relevant records is given in Table 1 below and within the following paragraphs.

Table 1. Summary of Notable Species Records.

Common name	Scientific name	Conservation status*
Bat	<i>Chiroptera</i>	EPS
Otter	<i>Lutra lutra</i>	EPS
Hedgehog	<i>Erinaceus europaeus</i>	Section 7

Key:

EPS = European Protected Species (listed in Annex 4 of the EC Habitats Regulations and Schedule 2 of the Habitats Regulations).

WCA5 = Animals listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Section 7 = Species of Principle Importance under the Environment (Wales) Act 2016.

PBA = Protection of Badgers Act 1992.

* The highest level of protection is noted here.

- 4.3.2 In addition, records of 49 notable bird species (including 7 Section 7 species and 1 protected under Section 1 of the Wildlife and Countryside Act) were highlighted, as well as 2 notable fish species, 9 butterfly species (including 1 Section 7 species), 1 moth species, 3 dragonfly species, 2 bee species, 4 bug species, 15 fly species and 1 mollusc species.

4.4 Habitats

- 4.4.1 The habitat types recorded during the Phase 1 Habitat Survey of the Site itself are described within the following paragraphs. Scientific names are given after the first mention of a species; thereafter, common names are used. Target notes are shown in Figure 3, nomenclature follows Stace (2019) for vascular plant species.
- 4.4.2 The majority of the Site comprises regularly mown (every six weeks or so) amenity grassland on narrow terraces and steep banks, and had very recently been mown at the time of the survey. The top terrace is dominated by Yorkshire-fog *Holcus lanatus* which remains prevalent in other areas of the grassland, alongside bent grass *Agrostis* sp., fescue *Festuca* sp. and occasional sweet vernal grass *Anthoxanthum odoratum*. Forb species are unremarkable and include white clover *Trifolium repens*, ribwort plantain *Plantago lanceolata*, ragwort *Jacobaea vulgaris*, dandelion *Taraxacum officinale* agg., daisy *Bellis perennis*, bird's-foot trefoil *Lotus corniculatus* (rare), creeping buttercup *Ranunculus repens* and common mouse-ear *Cerastium fontanum*. Primroses *Primula* sp. were also noted on some of the lower slopes, some of which are likely to be cultivated varieties.
- 4.4.3 The rear (north) boundary of the Site is demarcated by a steep rock face, above which and at the base of there is an area of dense scrub (Target note 1 and Figure 4), largely comprising grey willow *Salix cinerea* agg. with occasional hazel *Corylus avellana*, silver birch *Betula pendula* and holly *Ilex aquifolium*. Bramble *Rubus fruticosus* agg. is also present, with typical ground flora including herb-Robert *Geranium robertianum*, ivy *Hedera helix*, bracken *Pteridium aquilinum* and foxglove *Digitalis purpurea*.

Figure 3. Phase 1 Habitat map.



Figure 4. Top terrace comprising mown amenity grassland, with scrub to the rear.

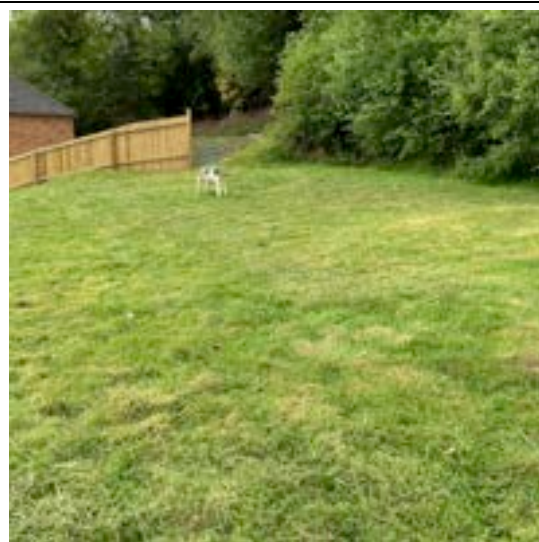


Figure 5. *Lonicera* hedge on the southern boundary with the road.



- 4.4.4 Other features to note include a cultivated *Lonicera* hedge on the southern boundary of the Site with the road (see Figure 5 above), a stand of pampas grass LATIN at one edge of the Site (see Figure 6 below) and several flower/vegetable beds towards the southern end of the site (see Figure 7 below). Two further features should be noted, including a tin shed (TN 2, Figure 8 below) and a small dry stone wall (TN3, Figure 9 below). Both of these features fall outside the red line boundary but within the blue line boundary, and are very close to the Site.

Figure 6. Stand of pampas grass.



Figure 7. Flower/vegetable beds.

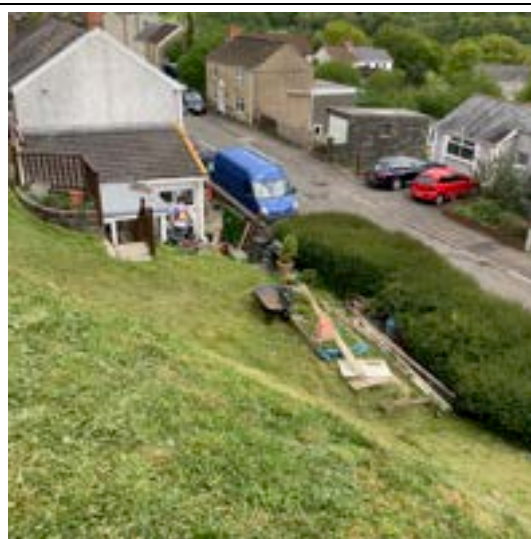


Figure 8. Tin shed.



Figure 9. Dry stone wall.



4.5 Protected/Notable Species

- 4.5.1 There is potential for several protected/notable species/species groups to be present on the Site or close by, these are summarised in Table 2 below.
- 4.5.2 A more detailed assessment of the potential for each species and/or species group to be present is given in Section 5 of this report, together with an assessment of likely impacts of the development proposals.

Table 2. Protected/Notable Species Summary.

Species	Notes
Bats	Two records of bats were highlighted by the desk study, however very limited information about these records was available. The Site sits on the edge of good quality foraging habitat for bats in the wider landscape. No buildings, structures or trees with the potential for roosting bats are present on the Site, although there is a tin shed close by.
Otter	A number of otter records are associated with the nearby River Tawe, and several road kill records associated with the A4067 were highlighted by the desk study. There is limited potential for otters to be using the Site, and this species is therefore not considered further here.
Water vole	No records of water voles were highlighted by the desk study. No suitable habitat for this species is present on the Site. Water voles are therefore considered likely to be absent from the Site and are not considered further here.
Amphibians	No records of amphibians were highlighted by the desk study. There is limited suitable terrestrial habitat on the Site for amphibian species due to high levels of disturbance, although it should be noted that the dry stone wall just outside the Site (but within the blue line boundary) does have the potential to be used as a refugia.
Reptiles	No records of reptiles were highlighted by the desk study. There is limited suitable terrestrial habitat on the Site for common reptile species due to high levels of disturbance, although it should be noted that the dry stone wall just outside the Site (but within the blue line boundary) does have the potential to be used as a refugia.
Breeding birds	A good number of notable bird species were highlighted by the desk study. There is minimal suitable habitat for breeding and foraging birds associated with the scrub to the rear of the Site, and this is likely to be limited to common passerines and song birds.
Badger	No records of badgers were highlighted by the desk study. No evidence of badgers was noted on the Site during the survey, however suitable foraging habitat for this species is present.
Hedgehog	A single hedgehog record was identified by the desk study, and suitable habitat for this species is present on the Site.

Invertebrates	Records of a number of notable invertebrate species were highlighted by the desk study. A range of common invertebrates is likely to be associated with site.
Plants	Records of a number of notable plant species were highlighted by the desk study, however no notable plants were noted on the Site during the survey visit.

5 Assessment

5.1 Planning Policy Context

5.1.1 Planning Policy Wales (PPW) (11th Edition, February 2021) is the national planning document setting out the devolved planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs) and Circulars. Of particular importance is TAN 5 (Welsh Assembly Government 2009), which provides national policy guidance in respect of nature conservation and planning.

5.1.2 PPW, the TANs and Circulars should all be taken into account by local planning authorities in Wales when preparing development plans and assessing planning applications. Those of most relevance are discussed further below.

TAN5: Nature Conservation and Planning

5.1.3 TAN 5 Nature Conservation and Planning sets out the manner in which planning authorities should comply with their duty to “...have a regard, so far as is consistent with the proper exercise of [their] functions, to the purpose of conserving biodiversity”, as required by the NERC Act.

5.1.4 The key principles of positive planning for nature conservation in TAN 5 are:

1. Work to achieve nature conservation objectives through a partnership between local planning authorities, Countryside Council for Wales (CCW), the Environment Agency (EA) Wales (CCW and EA Wales are now collectively Natural Resources Wales (NRW)), voluntary organisations, developers, landowners and other key stakeholders;
2. Integrate nature conservation into all planning decisions looking for development to deliver social, economic and environmental objectives together over time.
3. Ensure that the United Kingdom’s (UK) international and national obligations for site, species and habitat protection are fully met in all planning decisions;
4. Look for development to provide net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally;

5. Help to ensure that development does not damage, or restrict access to, or the study of, geological sites and features or impede the evolution of natural processes and systems especially on rivers and the coast;
6. Forge and strengthen links between the town and country planning system and biodiversity action planning particularly through policies in local development plans and the preparation of supplementary planning guidance that adds value to Local Biodiversity Action Plans (LBAP) by highlighting the ways in which the planning system can help to deliver the objectives of LBAPs in practical ways;
7. Plan to accommodate and reduce the effects of climate change by encouraging development that will reduce damaging emissions and energy consumption and that helps habitats and species to adapt to climate change.

Local Policy Context

5.1.5 A number of local planning policies within the Neath Port Talbot Local Development Plan (NPTCBC, 2016) are relevant to biodiversity and nature conservation, these include the following:

1. **Strategic Policy 15 (Biodiversity and Geodiversity).** This relates to the protection, conservation, enhancement and management of important habitats, species and sites of geological interest through recognition of SACs, Ramsar sites, SSSIs and NNRs, as well as via identification and protection of sites of regional and local importance. Important natural heritage features will also be protected.
2. **Policy EN6 (Important Biodiversity and Geodiversity Sites).** The policy states “Development proposals that would affect Regionally Important Geodiversity Sites (RIGS), Local Nature Reserves (LNRs), Sites of Interest for Nature Conservation (SINCs), sites meeting SINC criteria or sites supporting Local Biodiversity Action Plan (LBAP) or S42 habitats or species will only be permitted where a) they conserve and where possible enhance the natural heritage importance of the site; or b) the development could not reasonably be located elsewhere, and the benefits of the development outweigh the natural heritage importance of the site. Mitigation and/or compensation measures will need to be agreed where adverse effects are unavoidable”.

3. **Policy EN7 (Important Natural Features):** The policy states “Development proposals that would adversely affect ecologically or visually important natural features such as trees, woodlands, hedgerows / field boundaries, watercourses or ponds will only be permitted where a) full account has been taken of the relevant features in the design of the development, with measures put in place to ensure that they are retained and protected wherever possible; or b) the biodiversity value and role of the relevant feature has been taken into account and where removal is unavoidable, mitigation measures are agreed”.

5.1.6 Consideration should also be given to Neath Port Talbot’s Biodiversity and Geodiversity Supplementary Planning Guidance (NPTCBC, 2018).

The Environment (Wales) Act 2016

5.1.7 Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions (Biodiversity and Resilience of Ecosystems Duty, or Section 6 Duty). This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity. In doing so planning authorities must also take account of and promote the resilience of ecosystems, in particular the following aspects:

1. Diversity between and within ecosystems
2. The connections between and within ecosystems;
3. the scale of ecosystems;
4. the condition of ecosystems including their structure and functioning; and
5. the adaptability of ecosystems.

5.1.8 In fulfilling this duty, the Environment Act (Wales) 2016 requires public authorities to seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales. Public authorities must have regard to a list of living organisms and types of habitat which in their opinion are of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. This list must be prepared and published by the Welsh Ministers under Section 7 (1) of the same Act. Until this list has been published, the list of Habitats and Species of Principal Importance previously published under Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006, should be used.

5.2 Impacts on designated and notable sites

- 5.2.1 The proposed development is located approximately 300m from Swansea Canal LNR and within around 100m of a watercourse that forms part of NPT Watercourses SINC, which encompasses all watercourses in the county. However, no watercourse or standing water body is present anywhere on the Site or within the immediate vicinity. Due to the distance (no direct land take or adjacent land take effects), small size, lack of any functionally linked watercourse on the Site together with the nature of the development proposals (single dwelling), any impacts on either site are considered unlikely.
- 5.2.2 The proposed development is 100m away from the nearest area of restored ancient woodland, and there is no woodland on the Site itself. For similar reasons to those mentioned above, impacts of the proposals on nearby restored ancient woodland sites are considered unlikely.

5.3 Impacts on Habitats

- 5.3.1 The habitat on the Site largely comprises unremarkable grassland that is regularly managed for amenity purposes, and the loss of some of this area to provide space for a new dwelling and associated driveway is not considered significant.
- 5.3.2 The area of scrub on the rear boundary will be retained within the new development and will continue to form the rear boundary of the property.
- 5.3.3 There is an opportunity to improve the habitat on the Site by way of hedge planting along part of the rear garden boundaries and thereby provide net benefit for biodiversity. This is addressed further in Section 6 of this report.

5.4 Impacts on Protected/Notable Species

Bats

- 5.4.1 Bats and their habitats are protected under the Wildlife and Countryside Act 1981 (as amended), and by the Conservation of Habitats and Species Regulations 2017 (as amended). Taken together, these make it an offence to:

- a) Deliberately capture, injure or kill a bat;
- b) Deliberately disturb any bat, in particular any disturbance which is likely to (i) impair their ability to survive, breed, reproduce or to rear or nurture their young; or in the case of hibernating or migratory species, to hibernate or migrate; or (ii) to affect significantly the local distribution or abundance of the species to which they belong.
- c) To be in possession or control of any live or dead bat or any part of, or anything derived from a bat.
- d) Damage or destroy a breeding site or resting place of a bat;
- e) Intentionally or recklessly obstruct access to any place that bat uses for shelter or protection;
- f) Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

5.4.2 A bat roost may be any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to re-use the same roost sites, current legal opinion is that a bat roost is protected whether or not the bats are present at the time.

5.4.3 Eight species of bat are listed as Species of Principal Importance under NERC Act 2006/The Environment (Wales) Act 2016, including barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, noctule *Nyctalus noctula*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus*, brown long-eared *Plecotus auritus*, greater horseshoe *Rhinolophus ferrumequinum* and lesser horseshoe *R. hipposideros*.

5.4.4 Two records of bats (recorded as 'Chiroptera') were highlighted by the desk study.

5.4.5 The Site is suitable for foraging and commuting bats and it links to woodland and a wider open landscape to the north.

5.4.6 There is an opportunity to improve the quality of habitat for bats on the Site by way of a) provision of new roosting opportunities and b) planting woody species along the edges of the garden. These enhancement measures are discussed further in Section 6 of this report.

5.4.7 Whilst limited records of bats were highlighted by the desk study, it is likely that a number of bat species are present within the local area, potentially including those species that are more sensitive to light. Appropriate recommendations in relation to lighting are therefore given in Section 6 of this report.

- 5.4.8 Assuming all recommendations for enhancement measures and lighting are followed correctly, impacts on foraging and commuting bats are considered likely to be negligible, and net benefit for bats is expected.

Amphibians

- 5.4.9 Amphibians, including newts, frogs and toads are protected by various legislation, including the Wildlife and Countryside Act 1981 (as amended) and for great crested newt the Conservation of Habitats and Species Regulations 2017 (as amended).
- 5.4.10 In addition, great crested newt and common toad are listed as a Species of Principal Importance under the provisions of the NERC Act 2006 / Environment (Wales) Act 2016.
- 5.4.11 No records of amphibian species were highlighted by the desk study, although some limited refugia habitat is present on the Site and close by in the form of a short section of dry stone wall.
- 5.4.12 Works on the Site itself are considered unlikely to impact amphibian species, however the dry stone wall feature just outside the Site boundary should be retained and protected during construction. This is discussed further in Section 6 below.

Breeding Birds

- 5.4.13 All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to intentionally or recklessly disturb them while they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.
- 5.4.14 Records of a number of bird species were highlighted by the desk study, and the area of scrub at the rear of the Site (and beyond) is likely to provide suitable nesting habitat for a range of common breeding birds, as well as foraging opportunities. Appropriate precautions are therefore recommended in relation to this area of scrub, which are discussed further in Section 6 of this report.
- 5.4.15 There is an opportunity to improve the quality of habitat for birds on the Site by way of a) provision of new nesting opportunities and b) planting woody species along the edges of the garden that is of benefit to foraging birds. These enhancement measures are discussed further in Section 6 of this report.

- 5.4.16 Assuming these recommendations for precautions and enhancement are followed, impacts on nesting birds are likely to be negligible and may result in some improvement for this species group.

Reptiles

- 5.4.17 All native British reptiles are protected under the Wildlife and Countryside Act 1981 (as amended). Grass snake, slow worm, common lizard and adder are protected against intentional killing or injury and against sale. In addition, all British reptiles are listed as Species of Principal Importance under the provisions of the NERC Act 2006/ Environment (Wales) Act 2016.
- 5.4.18 No records of reptiles were highlighted by the desk study and there is limited suitable habitat for this species group due to the high levels of disturbance caused by regular grass cutting. However, some limited refugia habitat is present close by in the form of a short section of dry stone wall just outside the Site boundary.
- 5.4.19 Works on the Site itself are considered unlikely to impact reptile species, however the dry stone wall feature should be retained and protected during construction. This is discussed further in Section 6 below.
- 5.4.20 Assuming these recommendations are followed, impacts on reptiles are likely to be negligible.

Hedgehogs

- 5.4.21 Hedgehogs are listed as a Species of Principal Importance under the NERC Act 2006/ Environment (Wales) Act 2016.
- 5.4.22 Records of this species were highlighted by the desk study, and there is suitable habitat present on the Site for foraging hedgehogs, particularly to the rear of the Site. Appropriate precautions should be taken during the works and are discussed further in Section 6 of this report. Assuming these precautions are followed, impacts on this species are considered likely to be negligible.

Badgers

- 5.4.23 Badgers are protected under the Badgers Act 1992. This makes it an offence to willfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so; or to

intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it. Removal of significant areas of badger foraging habitat may also contravene the Act, as it could be regarded as cruelty.

- 5.4.24 No records of badger were highlighted by the desk study.
- 5.4.25 No evidence of any setts was noted during the survey, however the Site does have suitability for foraging and commuting badgers.
- 5.4.26 Appropriate precautions should be put into place during construction in order to reduce potential impacts on badgers that may use the Site. These are discussed further in Section 6 of this report, and if followed correctly will ensure impacts on badgers are negligible.

Invertebrates

- 5.4.27 A number of invertebrate species records were highlighted by the desk study. A limited range of invertebrates is likely to be present on the development Site.
- 5.4.28 Recommendations are given in Section 6 of this report in relation to appropriate planting that would support a range of invertebrate species.

5.5 Enhancements

- 5.5.1 Planning Policy Wales 11 states '*planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means that development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity*'.
- 5.5.2 A number of opportunities for enhancement have already been suggested in the paragraphs above and are detailed more fully in Section 6 of this report.

5.6 Summary Assessment

- 5.6.1 This Preliminary Ecological Appraisal has provided baseline ecological information describing the main characteristics of the proposed development site. An assessment of likely impacts has therefore been made for the majority of habitats, species and

species groups, subject to a number of recommendations outlined in the following section.

6 Recommendations

6.1 Introduction

6.1.1 The following recommendations have been made in relation to ecological protection and enhancement, and the applicant is fully committed to carrying them out as stated.

6.1.2 Planting proposals, protected areas during construction and the location of bat/bird boxes are shown on the Proposed Site Plan (Drawing 2231-03) and the Floor Plans and Elevations (Drawing 2231-04), both of which accompany this application and are referenced again in the appropriate paragraphs below. These two figures should be looked at in conjunction with this report.

6.2 Recommendations during construction

6.2.1 The following recommendations will be carried out during the construction phase of the proposed works:

1. **Avoidance of night working.** Construction works will not take place during the hours of darkness, in order to keep impacts on foraging/commuting bats, badgers, and hedgehogs to a minimum.
2. **Appropriate precautions in relation to badgers and other mammals.** Any trenches/excavations created during the works, for example for foundations, service connections etc. will be covered over at night to prevent animals such as badgers, hedgehogs and other species from falling in and becoming trapped. If that is not possible, an adequate means of escape will be provided, for example, a gently graded side wall or provision of a sloped wooden plank or equivalent. All excavations will be checked for trapped wildlife each morning prior to commencing activities.
3. **Appropriate avoidance/protection of ecological features.** The area of scrub to the rear of the Site will be retained and protected during construction by way of Heras fencing (or similar) or warning tape. The dry stone wall area just outside the Site will also be protected in the same way. The location of these protection areas is shown in Drawing 2231-03, which accompanies this application.

6.3 Recommendations for enhancement

6.3.1 The following recommendations for enhancement will be carried out as part of the development proposals:

1. **Planting along the boundaries of the Site.** The boundaries of the re-landscaped rear garden will be planted up with a mix of native species whips that will provide a range of foraging opportunities for birds, invertebrates and bats, and will include oak (30%), hazel (30%), birch (20%), holly (10%) and hawthorn (10%). Each whip will be planted approximately 30cm apart in two off-set rows per hedge, at an appropriate time of year (between late autumn and early spring) and within 1 year of development completion. Any whips that fail within the following year will be replaced on a one-to-one basis. Due to the high levels of rainfall in this area and the time of year in which the hedges will be planted, ongoing watering is not considered necessary. The location of these new hedges is shown in Drawing 2231-03, which accompanies this application
2. **Integrated bat boxes.** Two integrated bat boxes suitable for species likely to be present within the vicinity of the Site will be installed within the fabric of the new dwelling. Suitable bat boxes will include one box suitable for crevice-dwelling species (for example the Ibstock Batbox B or similar) and one box suitable for cavity dwelling species (for example the Habitat 3S Built-in Batbox or similar). The location of these bat boxes is shown in Drawing 2231-04, which accompanies this application.
3. **Integrated bird boxes.** Three integral swift boxes will be installed within the fabric of the new dwelling, in suitable locations. Swift boxes may be used by multiple species including swifts, house sparrows, tits and starlings (Newell, 2021), all of which are known to be in the vicinity of the Site or within their natural range. The location of these swift boxes is shown in Drawing 2231-04, which accompanies this application.

6.4 Lighting

6.4.1 No external lighting is proposed as part of the development.

6.5 Repeat Surveys

- 6.5.1 If the Site remains undeveloped for more than two years from the date of this survey, repeat survey work may be necessary, even if planning permission has already been granted. This is to ensure that no significant changes have taken place to the Site in the meantime, that impacts on protected species/habitats have remained the same, and that mitigation measures are still appropriate for the scheme. Any significant changes that may occur should be addressed appropriately if this happens.

7 References

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