Client – Gillian Horn

Site – Llan Gau Studio

Reference – 20260003-STU

Location – Llanarmon Dyffryn Ceiriog, Llangollen

Central Grid Reference – SJ 14629 31339

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Preliminary Ecological Appraisal (PEA)

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Table of Contents

1. Summary 2
2. Introduction 3
2.1. Purpose 3
2.2. Site Description and Location 3
2.3. Proposals 4
3. Methodology 5
3.1. Desk study 5
3.2. Field survey 5
3.3. Net Benefit for Biodiversity 5
3.4. Limitations/Constraints 6
4. Results and Interpretation 7
4.1. Designated Sites 7
4.2. Habitats 7
4.3. Fauna 12
4.4. Invasive Non-Native Plant Species 18
5. Recommendations 19
6. Net Benefit for Biodiversity 20
7. Green Infrastructure Statement 21
8. References 22
Appendices 23
Appendix I. Habitat Map 23
Appendix II. Target Notes 24
Appendix III. Species Lists 27
Appendix IV. Development Plans 29
Appendix V: Planning Policy and Species Legislation Summary 31

Disclaimer

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In line with Chartered Institute of Environmental and Ecological Management (CIEEM) recommendations the findings of this survey are deemed valid for 18 months from the date of the survey.

1. Summary

Purpose	Planning permission is being sought for the construction of a studio on land associated with Llan Gau. A Preliminary Ecological Appraisal of the site was commissioned to support the application for planning permission.
Results	The habitats on site are common to the local area and include areas of grassland that may constitute a Section 7 Habitat of Principal Importance. The ecological receptors on and around the site include: ○ Several statutory and non-statutory designated sites in the surrounding area, ○ A moderate potential for roosting bats to be present in the cottage, ○ Potential Roost Features in several trees on site, ○ A moderate value foraging and commuting habitat for bats on and around the site, ○ Records of birds within the area, including designations for some bird species, with habitats suitable to support a range of species on site, ○ Habitat suitable to support hedgehogs on site, ○ Mustelid droppings in the roof void of the cottage with existing records of several mustelid species in the surrounding area.
Recommendations	○ Carry out a survey of the grassland on site during the optimal season if works change and will impact the grassland, ○ Implement precautionary working methods for badgers and other mammals, ○ Retain the ash tree or survey prior to works commencing, ○ Implement a sensitive lighting scheme during all phases of the proposals, ○ Include features suitable for roosting bats and nesting birds in/on the new building as an enhancement to the site.

2. Introduction

2.1. Purpose

2.1.1. Planning permission is being sought for the construction of a studio on land associated with Llan Gau.

2.1.2. A Preliminary Ecological Appraisal (PEA) of the site was commissioned to support the application for planning permission.

2.2. Site Description and Location

2.2.1. The site comprises Llan Gau, a grade II listed cottage, and the land associated with the building, which extends to 0.547 hectares (ha).



Figure 1: Showing the area of land at Llan Gau covered by this survey.

2.2.2. The land immediately surrounding the site comprises areas of upland grazing pasture and managed plantation on all sides.

2.2.3. The wider surrounding area comprises a mixture of grazing pasture, upland grazing pasture and heath with occasional small pockets of woodland.



Figure 2: Showing the site in context with the wider surrounding area.

2.3. Proposals

2.3.1. The proposals are to construct a studio on land associated with Llan Gau.

2.3.2. Plans showing the potential location of the studio are included in Appendix IV of this report.

3. Methodology

3.1. Desk Study

3.1.1. A desk study was carried out in order to identify existing records of protected or notable species or habitats within 2km of the survey area.

3.1.2. Records of locally designated sites and existing records of protected species were requested from Cofnod.

3.1.3. The area within 500m of the site was searched for waterbodies using publicly accessible mapping including Ordnance Survey, Google Earth and the MAGIC website.

3.2. Field Study

3.2.1. A field survey of the site was undertaken on by Steven Whitcher (MCIEEM) on the 20th January 2026. The Preliminary Ecological Appraisal (PEA) was carried out in accordance with the industry standard and mapped using UKHab 2.0 Classifications (*2023*).

3.2.2. The weather at the time of the survey was cloudy with a strong breeze (BWS 3-4) and a temperature of 5°C.

3.2.3. During the survey all habitats were noted, including dominant species, mapped and notable ecological features were target noted.

3.2.4. The survey also looked for evidence of protected or notable fauna species or invasive non-native plant species and followed specific survey guidelines, where applicable, including:

- Checking all buildings, trees and structures for bat roosting potential in line with the Bat Conservation Trust Good Practice Guidelines, 4th edition (*Collins 2023*), BTHK Bat Roosts in Trees (*BTHK 2018*) and BRHK Bat Roosts in Rock (*BRHK 2021*).
- Assessing all accessible ponds within 500m of the surveyed area using the Habitat Suitability Index (HSI) assessment criteria (*Oldham et al. 2000*).
- Assessing the habitats on site for their suitability to support protected or notable species, including but not limited to, badgers (*Harris et al 1989*), water voles (*Strachan et al 2011*), otters (*Channin, 2003*), crayfish, nesting birds (*BBS,BTO*), reptiles (*Froglife 1999*), hedgehogs and hazel dormice.

3.3. Net Benefit for Biodiversity

3.3.1. The Net Benefit for Biodiversity (NBB) was evaluated using Natural Resources Wales's (NRW) DECCA framework. The framework aims to evaluate the ecosystem resilience based on five attributes and properties specified in the Environment (Wales) Act.

- *Diversity*: maintaining and enhancing diversity at every scale, including genetic, structural, habitat and between-habitat levels. This supports the complexity of ecosystem functions and interactions that deliver services and benefits,

- *Extent*: incorporating measures which maintain and increase the area of semi-natural habitat/features and linkages between habitats. In general, smaller ecosystems have reduced capacity to adapt, recover or resist disturbance,
- *Condition*: The condition of an ecosystem is affected by multiple and complex pressures acting both as short term and longer term types of disturbance. Both direct and wider impacts should be considered, for example avoiding or mitigating pressures such as climate change, pollution, invasive species, land management, neglect etc,
- *Connectivity*: This refers to the links between and within habitats, which may take the form of physical corridors, stepping stones in the landscape, or patches of the same or related vegetation types that together create a network that enables the flow or movement of genes, species and natural resources. Developments should take opportunities to develop functional habitat and ecological networks within and between ecosystems, building on existing connectivity,
- *Aspects of ecosystem resilience (adaptability, recovery and resistance)*: ecosystem resilience is a product of the above four attributes. Adaptability, recovery and resistance to/from a disturbance are defining features of ecosystem resilience.

3.3.2. The site plans were assessed against this framework to provide an assessment of the overall impact of the proposals on the biodiversity of the site and the connection of the site into the wider ecological networks.

3.4. Limitations/Constraints

3.4.1. This survey was carried out to CIEEM methodologies and therefore provides an overview of the habitats present on the site with dominant, notable or indicator species within those habitats noted. As such the species lists included are intended to be sufficient to confidently assess habitat condition but are not intended to provide an exhaustive list of all species present.

3.4.2. The survey was carried out during January, which is outside the optimal season for grassland surveys, and therefore an accurate classification of the grassland present on site was not carried out as part of the survey with the areas of grassland given a precautionary classification based on the nature of the grassland during the survey. Due to the proposals for the site, which leave the areas of grassland unaffected, the sub-optimal timing of the survey and lack of an accurate grassland classification was not considered to be a constraint to the overall assessment of the impact of the proposals.

4. Results and Interpretation

4.1. Designated Sites

4.1.1. Cofnod returned records of two statutory designated sites within the 2km search area.

Table 1: Statutory sites within 2km

Site Name	Designation	Reason for Designation	Location
Berwyn	Special Protection Area (SPA)	Species: Birds	675m north
Berwyn	Site of Special Scientific Interest (SSSI)	Species: Birds	675m north

4.1.2. Cofnod returned records of a single non-statutory designated site within the 2km search area.

Table 2: Statutory sites within 2km.

Site Name	Designation	Reason for Designation	Location
Nant-y-Glog Mire	Local Wildlife Site (LWS)	Habitats: Mire	1.5km east

4.1.3. Due to the location of the site and the small scale of the plans it is considered that the proposals will not have a direct or indirect impact on the designated sites.

4.2. Habitats

4.2.1. Cofnod returned several records of Section 7 Habitats of Principal Importance within the 2km search area. The closest refer to the presence of lowland dry acid grassland to the south (250m) and west (115m) of the site and a record of purple moor grass and rush pastures to the west (100m).

4.2.2. The habitats present within the surveyed area are outlined below and shown on the plan in Appendix I of this report. Appendix III includes species lists for each habitat.

4.2.3. g-32 Grassland – scattered trees (0.095ha)

4.2.3.1. To the southeast of the site an area of grassland extends to the front of the cottage.



Figure 3: Looking south across the grassland.



Figure 4: Looking north across the grassland.

4.2.3.2. The grassland displays a lush green sward, typical of neutral or modified grassland as opposed to acid grassland. The sward includes common grass and forb species, including cock's foot (*Dactylis glomerata*), fescue (*Festuca sp.*), dock (*Rumex sp.*) and creeping buttercup (*Ranunculus repens*).

4.2.3.3. The grassland provides opportunities for species to forage with habitats piles (T2) and old collapsed decorative stone walls providing potential shelter for some species.



Figure 5: Piles of cut vegetation within the grassland.



Figure 6: Old collapsed decorative stone walls.

4.2.3.4. The grassland was considered to provide moderate ecological value. Due to the nature of the grassland, which has historically been disturbed during use as a lawn/garden area associated with the cottage, it is considered highly unlikely that a survey in the optimal season would identify the grassland to comprise a Section 7 Priority Habitat, such as acid grassland.

4.2.3.5. The proposals will leave the area of grassland completely unaffected.

4.2.3.6. Scattered trees

4.2.3.6.1. Over the last forty years the owners of the property have planted occasional trees throughout the area of grassland, including willow (*Salix sp.*), field maple (*Acer campestre*) and silver birch (*Betula pendula*).

4.2.3.6.2. The trees provide opportunities for a range of species and have benefits for a range of ecosystem services. Therefore, the trees were considered to display a high ecological value.

4.2.3.6.3. The proposals will leave the trees completely unaffected.

4.2.4. g-510,32 Bare ground – scattered trees (0.011ha)

4.2.4.1. A strip of bare ground extends along the southeast and south sides of the building due to recent disturbance to the area.

4.2.4.2. The bare ground provides no opportunities for fauna species, due to the disturbed nature of the ground. The bare ground is also considered a temporary habitat that will re-grow during the growing season. Therefore, the bare ground was considered to provide little or no ecological value.

4.2.4.3. The proposals will leave the bare ground unaffected.



Figure 7: The bare ground to the southeast.



Figure 8: The tank location to the south.

4.2.4.4. Scattered trees

4.2.4.4.1. A single aspen (*Populus tremuloides*) is located on the southern boundary of the site within the area of bare ground.

4.2.4.4.2. The tree provides opportunities for a range of species and has benefits for a range of ecosystem services. Therefore, the tree was considered to display a high ecological value.

4.2.4.4.3. The proposals will leave the tree unaffected.

4.2.5. g1-12,32,50 Acid grassland – scattered bracken, scattered trees, ditch (0.243ha)

4.2.5.1. Several areas of bracken (*Pteridium aquilinum*) were identified along the access track to the site and on a steep southeast facing bank located to the northwest of the cottage. The areas of bracken display occasional clearings dominated by grassland species, notably under the trees on the bank to the northwest.



Figure 9: Bracken adjacent to the access track.



Figure 10: The north facing bank dominated by bracken.

4.2.5.2. The bracken to the north of the access track is located on a steep north facing slope with occasional openings in the bracken displaying creeping buttercup, sorrel (*Rumex sp.*) and fox glove (*Digitalis purpurea*), among other species.

4.2.5.3. To the south the bracken along the access track and on the steep southeast facing bank displays dense areas with openings in the bracken dominated by grass with a sward considered indicative of acid grassland.



Figure 11: Areas of grassland in the bracken.



Figure 12: The steep southeast facing bank.

4.2.5.4. A ditch extends along the side of the access track to the north of the site. The ditch was dry at the time of the survey with vegetation present throughout the ditch.



Figure 13: The ditch at the northern end of the site.



Figure 14: The ditch adjacent to the access track.

4.2.5.5. The areas of bracken and grassland provide opportunities for a range of species and were therefore considered to display a high ecological value. A further assessment of the grassland will be required during the optimal season to identify whether the grassland is a Section 7 Priority Habitat, if the works will impact the grassland.

4.2.5.6. The proposals will not have an impact on the areas of grassland and will therefore leave the ecological value of the grassland, and the potential Section 7 Priority Habitat, unaffected.

4.2.5.7. Scattered trees

4.2.5.7.1. In line with the other area of grassland the owners of the property have planted occasional trees throughout the areas of bracken and grassland over the last forty years. The trees include larch (*Larix sp.*), fir (*Abies sp.*), silver birch and walnut (*Juglans regia*), among other species.

4.2.5.7.2. The trees provide opportunities for a range of species and have benefits for a range of ecosystem services. Therefore, the trees were considered to display a high ecological value.

4.2.5.7.3. The proposals will leave the trees completely unaffected.

4.2.6. h3h Mixed scrub (0.099ha)

4.2.6.1. To the north of the site an area of scrub extend down a steep north facing bank that runs adjacent to the access track.

4.2.6.2. The area of scrub comprises a dense area of vegetation that includes willow, hazel (*Corylus avellana*) and hawthorn (*Crataegus monogyna*) with the ground cover under the scrub including moss and bracken.



Figure 15: The area of scrub.



Figure 16: Within the area of scrub.

4.2.6.3. The scrub provides a dense habitat suitable to support a range of species and therefore the area of scrub was considered to display a high ecological value.

4.2.6.4. The proposals will leave the area of scrub completely unaffected.

4.2.7. u1b5 Buildings (0.012ha)

4.2.7.1. One existing building is present on the site, comprising the cottage, which is located to the south of the site. The cottage is covered in detail in section 4.3.3 of this report.



Figure 17: The cottage building.



Figure 18: The front of the cottage building.

4.2.7.2. The building comprises an occasionally used residential property. Due to features around the building which provide opportunities for some species and the generally low level of disturbance on the site, the building was considered to provide a moderate ecological value.

4.2.7.3. The proposals will leave the existing building unaffected.

4.2.8. u1c Artificial unvegetated, unsealed surface (0.087ha)

4.2.8.1. A stoned access track extends from the public highway to the north of the site and includes an existing parking area immediately to the north of the cottage. The track and parking area show some grass re-growth between the vehicle tracks but were generally considered to be unvegetated.



Figure 19: The access track leading to the cottage.



Figure 20: The existing parking area.

4.2.8.2. The access track and parking area provide limited opportunities for fauna species and were therefore considered to provide little or no ecological value.

4.2.8.3. The proposals will utilise the track for access to the site, in line with the current use, and will cause the loss of section of the parking area to the new building footprint.

4.2.9. u1e Built linear features (512m)

4.2.9.1. Post and wire stock fencing separates the site from the surrounding habitats.

4.2.9.2. Stock fencing provides no ecological value and may cause a barrier to the movement of some species.

4.3. Fauna

4.3.1. Amphibians

4.3.1.1. Cofnod did not return any existing records of amphibians within the 2km search area.

4.3.1.2. No ponds were identified within the surveyed site or within 500m of the site on maps of the area. Therefore, it is considered unlikely that the site will support amphibians or that the proposals will have an impact on amphibians in the wider surrounding area.

4.3.2. Badgers

[redacted]

4.3.2.2. No badger setts or other field signs were identified within the surveyed site although the site and surrounding area provide opportunities for the species. An animal hole was identified leading under a mature ash (*Fraxinus excelsior*) (T3) tree adjacent to the cottage, although there were no signs to imply the hole was made by badgers.

4.3.2.3. The proposals are confined to the parking area, which is an existing stoned area subject to occasional disturbance. Therefore, with proposals will not have an impact on badgers, if they are present in the wider surrounding area.

4.3.3. Bats

4.3.3.1. Cofnod returned occasional records of bats within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the presence of common pipistrelle (*Pipistrellus pipistrellus*) at Llanarmon Dyffryn Ceiriog, 1.5km to the north.

4.3.3.2. One building was identified within the surveyed site, comprising the existing grade II listed cottage building, which is an occasionally used residential property.



Figure 21: The cottage building.



Figure 22: The roof of the cottage building.

4.3.3.3. The walls of the building comprise solid stone walls with occasional areas of brick around doorways and corrugated metal sheeting on the southern gable end. Small wooden fascia boards are present along the eaves of the building.

4.3.3.4. The roof of the building comprises a pitched slate roof with single brick chimney central in the ridge.

4.3.3.5. Internally, the building includes a small roof void at the apex of the southern half of the building. The roof void comprises purlin and rafter timbers with no lining on the inside of the slates.

4.3.3.6. The walls of the building were found to be in a generally good condition although occasional voids were present in the stonework, including voids to the north, where a small ruin lies adjacent to the building. Further voids were identified on the southern elevation of the building, due to voids between the corrugated metal sheeting and stonework.



Figure 23: Voids in the stonework of the building.



Figure 24: The corrugated metal sheets to the south.

4.3.3.7. Further voids were identified around the eaves of the building, leading behind the wooden fascia boards. The voids were partially netted on the front elevation of the building, although voids to the wall tops were present due to openings in the mesh.



Figure 25: Voids behind the fascia to the front of the building.



Figure 26: Voids behind the fascia to the rear.

4.3.3.8. The roof of the building was found to be in a generally good condition, although occasional missing or slipped slates were present. A single ventilated ridge tile was identified on the northern section of the roof, providing potential access to the void between the slates and the internal ceiling. Further voids were identified on the northern elevation of the building due to the verge of the building being open, providing direct access to the void under the slates.

4.3.3.9. No bat field signs were identified around the exterior of the building at the time of the survey.



Figure 27: The ventilated ridge tile.



Figure 28: Voids in the verge of the building.

4.3.3.10. Internally, the roof void was found to be small with no insulation. No bat field signs were identified throughout the roof void at the time of the survey with the roof void showing high levels of soot due to a hole in the chimney within the roof void.

4.3.3.11. Overall, the cottage was assessed to provide a moderate potential to support roosting bats due to the voids around the walls and eaves of the building.

4.3.3.12. The proposals will leave the existing building unaffected and will therefore have no impact on roosting bats if they are present in the building.

4.3.3.13. The trees within the surveyed area were assessed from the ground during the survey and Potential Roost Features (PRF) suitable to support roosting bats were identified in two areas of the site.

4.3.3.14. Hazard beams were identified in willow trees within the scrub to the north of the site (T1). The hazard beams displayed no bat field signs at the time of the survey but were assessed to provide PRF-I (PRF suitable for individual bats) suitability to support roosting bats.



Figure 29: Hazard beams in willow trees in the scrub.



Figure 30: The mature ash tree.

4.3.3.15. The mature ash tree located adjacent to the cottage (T3) displayed various PRF in the form of knot holes and areas of rot throughout the stem and canopy of the tree. The features could not be directly inspected from the ground and were therefore the tree was assessed to provide PRF (PRF confirmed to be present) suitability to support roosting bats.

4.3.3.16. The remaining trees were assessed to provide negligible potential to support roosting bats due to a lack of visible PRF around the trees.

4.3.3.17. The trees will not be directly impacted by the proposed works and therefore if a sensitive lighting scheme is implemented during the proposals the impact on any bat roosts present in the trees will be negligible.

4.3.3.18. The habitat surrounding the site is generally open with limited connective features, although there are areas of woodland and plantation extending along the valley to the north. Therefore, the surrounding area was considered to provide a moderate value foraging and commuting habitat for bats. A thorough assessment of the foraging and commuting activity on and around the site was not carried out as part of this survey.

4.3.3.19. The proposals will impact a small area of the stoned parking area and will not cause the loss or fragmentation of suitable foraging habitats. Therefore, if a sensitive lighting scheme is implemented during all phases of the works the impact on foraging and commuting bats is likely to be negligible.

4.3.4. Birds

4.3.4.1. Cofnod returned abundant records of birds within the 2km search area, including records associated with the surveyed site and the immediate surrounding area. The records within the site comprise records of chaffinch (*Fringilla coelebs*), dunnock (*Prunella modularis*) and willow warbler (*Phylloscopus trochilus*). The records throughout the surrounding area comprise a range of species, including curlew (*Numenius arquata*), meadow pipit (*Anthus pratensis*) and red kite (*Milvus milvus*).

4.3.4.2. Cofnod also returned a record of an area of land designated at '*Important Curlew Area*', associated with Berwyn SPA & SSSI, which includes the majority of the site.

4.3.4.3. The owners of the property anecdotally reported the previous presence of house martins (*Delichon urbicum*) nesting on the building, although they reported that the species hadn't been seen around the site for several years.

4.3.4.4. The site provides opportunities for a variety of bird species due to the range of habitats present, which include suitable nesting and foraging habitats. Bird activity at the time of the survey was generally low, although existing nest structures were identified throughout the vegetation and around the building, including old house martin nests.

4.3.4.5. The proposed works are restricted to the existing stoned parking area and will not impact habitats that would provide opportunities for birds, to nest or forage. Therefore, there will be no impact on birds during the proposals.

4.3.5. Crayfish

4.3.5.1. Cofnod did not return any existing records of crayfish within the 2km search area.

4.3.5.2. No watercourses are present within the surveyed site, although several small watercourses flow throughout the surrounding area. Therefore, there will be no impact on crayfish during the proposed works to the cottage.

4.3.6. Hedgehogs

4.3.6.1. Cofnod did not return any existing records of hedgehog (*Erinaceus europaeus*) within the 2km search area.

4.3.6.2. The site provides opportunities for hedgehogs to seek shelter, in the scrub, piles of cut vegetation and logs (T2) present on the site and within the ruin (T5), located adjacent to the cottage building, and to forage in the areas of grassland. No hedgehog field signs were identified during the site survey.

4.3.6.3. The proposals are restricted to the stoned parking area and will not have an impact on areas of habitat suitable to support hedgehogs. Therefore, if precautionary measures are implemented during the proposals, the impact on hedgehogs will be negligible.

4.3.7. Invertebrates

4.3.7.1. Cofnod returned a single record of invertebrate species within the 2km search area, relating to the presence of small heath butterfly (*Coenonympha pamphilus*) 1km to the south.

4.3.7.2. The site provides opportunities for invertebrate species although a thorough invertebrate survey was not conducted as part of this survey.

4.3.7.3. The proposals are restricted to the existing stoned parking area and will not have an impact on the surrounding habitats. Therefore, the proposals are considered highly unlikely to have an impact on invertebrate communities in the surrounding area.

4.3.8. Otters

4.3.8.1. Cofnod returned a single record of otter (*Lutra lutra*) within the 2km search area, referring to the presence of the species at Llanarmon Dyffryn Ceiriog, 1.7km to the northeast.

4.3.8.2. No watercourses that would provide a suitable habitat for otters were identified within the surveyed site and therefore it is considered unlikely that otters will be present on site or impacted by the proposals.

4.3.9. Reptiles

4.3.9.1. Cofnod did not return any existing records of reptiles within the 2km search area.

4.3.9.2. The site provides opportunities for reptiles due to the nature of the habitats present and the connectivity of the site with the wider surrounding area, that includes areas of heath. No reptiles were encountered during the site survey.

4.3.9.3. The proposals are restricted to the stoned parking area and will not have an impact on the surrounding habitats. Therefore, it is considered unlikely that the proposals will have an impact on reptiles, should they be present on site.

4.3.10. Water Voles

4.3.10.1. Cofnod did not return any existing records of water vole (*Arvicola amphibius*) within the 2km search area.

4.3.10.2. No watercourses that would provide a suitable habitat for water voles were identified within the surveyed site and therefore it is considered unlikely that water voles will be present on site or impacted by the proposals.

4.3.11. Other Mammals

4.3.11.1. Cofnod returned occasional records of brown hare (*Lepus europaeus*), polecat (*Mustela putorius*), weasel (*Mustela nivalis*) and stoat (*Mustela erminea*) within the 2km search area, although no records within or immediately adjacent to the site. Cofnod did not return any existing records of pine martin (*Martes martes*), although there are isolated areas of woodland to the northwest of the stie.

4.3.11.2. Animal droppings, assessed to be mustelid droppings, were identified in the roof void of the cottage. The droppings were assessed to be of varying ages, although no animals were present during the survey and therefore an accurate species assessment could not be carried out.

4.3.11.3. The proposals will have not have an impact on habitats suitable to support mustelids and therefore there will be no impact on mustelid species.

4.4. Invasive Non-Native Plant Species

4.4.1. No invasive non-native plant species were identified within the surveyed site and there were no signs to imply the presence of plant species that die back over the winter months. Therefore, it is considered unlikely that the proposed works will cause the spread of invasive non-native plant species.

5. Recommendations

5.1. Designated Sites

5.1.1. The proposals will not have an impact on designated sites and therefore there are on recommendations relating to designated sites.

5.2. Habitats

5.2.1. There are records of several Section 7 Habitats of Principal Importance within the area of the site and the areas of grassland on site may be suitable to be classified as Habitats of Principal Importance, although a survey in the optimal season will be required to accurately classify the grassland should the proposals change to include an impact on the areas of grassland.

5.2.2. The proposals will not have an impact on the areas of potential Habitat of Principal Importance and therefore there are no recommendations relating to the habitats on site.

5.2.3. In the event that the proposals for the site change and the areas of grassland on site will be impacted it is recommended that the works are preceded by a further survey of the grassland during the optimal season, which is the summer.

5.3. Fauna

5.3.1. Badgers and other mammals

5.3.1.1. It is recommended that any excavations created on the site have at least one sloping side, to allow badgers or other mammals to escape. Any pipe ends should be capped between shifts, to prevent inquisitive animals entering the pipes and becoming trapped.

5.3.2. Bats

5.3.2.1. It is recommended that the mature ash tree located adjacent to the cottage remains unaffected by the proposed works. Should there be a requirement to carry out works that will impact the ash trees, these should only commence following a further inspection of the tree to accurately assess the potential for roosting bats to be present.

5.3.2.2. It is recommended that a sensitive lighting scheme, in line with BCT and Institute of Lighting Professionals (ILP) Guidance (2013) is implemented during all phases of the proposals.

5.3.2.3. It is recommended that consideration is given to including roosting opportunities in/on the new building, in the form of bat boxes or other suitable roost features.

5.3.3. Birds

5.3.3.1. It is recommended that bird boxes suitable for a variety of species, including house martin, are included in/on the building and on the trees on site during the proposals, as an enhancement.

6. Net Benefit for Biodiversity

6.1. The proposals for the site have been assessed against each attribute/property of the DECCA framework.

6.2. Diversity

6.2.1. The proposals are restricted to existing stoned access areas and will not have an impact on the diversity of the site.

6.3. Extent

6.3.1. The proposal are restricted to the existing stoned parking area and will not have an impact on the extent of the habitats present on site, with features included in the new building increasing the extent of opportunities provided on the site.

6.4. Condition

6.4.1. The proposals are restricted to the existing stoned parking area and will not have an impact on the condition of the habitats within the site.

6.5. Connectivity

6.5.1. The proposals are restricted to the existing stoned parking area and will not have an impact on the wider connectivity of the site.

6.6. Aspects of Ecosystem Resilience

6.6.1. The proposals will not have an impact on the habitats present on site and therefore, if features are created in the new building the proposals will have a minor positive impact on the opportunities provided by the site.

7. Green Infrastructure Statement

7.1. The proposed works are the construction of a new studio building on an existing stoned parking area associated with the site, with no impact on the wider habitats associated with the site. Therefore, the proposals will not have an impact diversity of the site.

7.2. If features are created in the new building the overall impact of the proposals will be positive.

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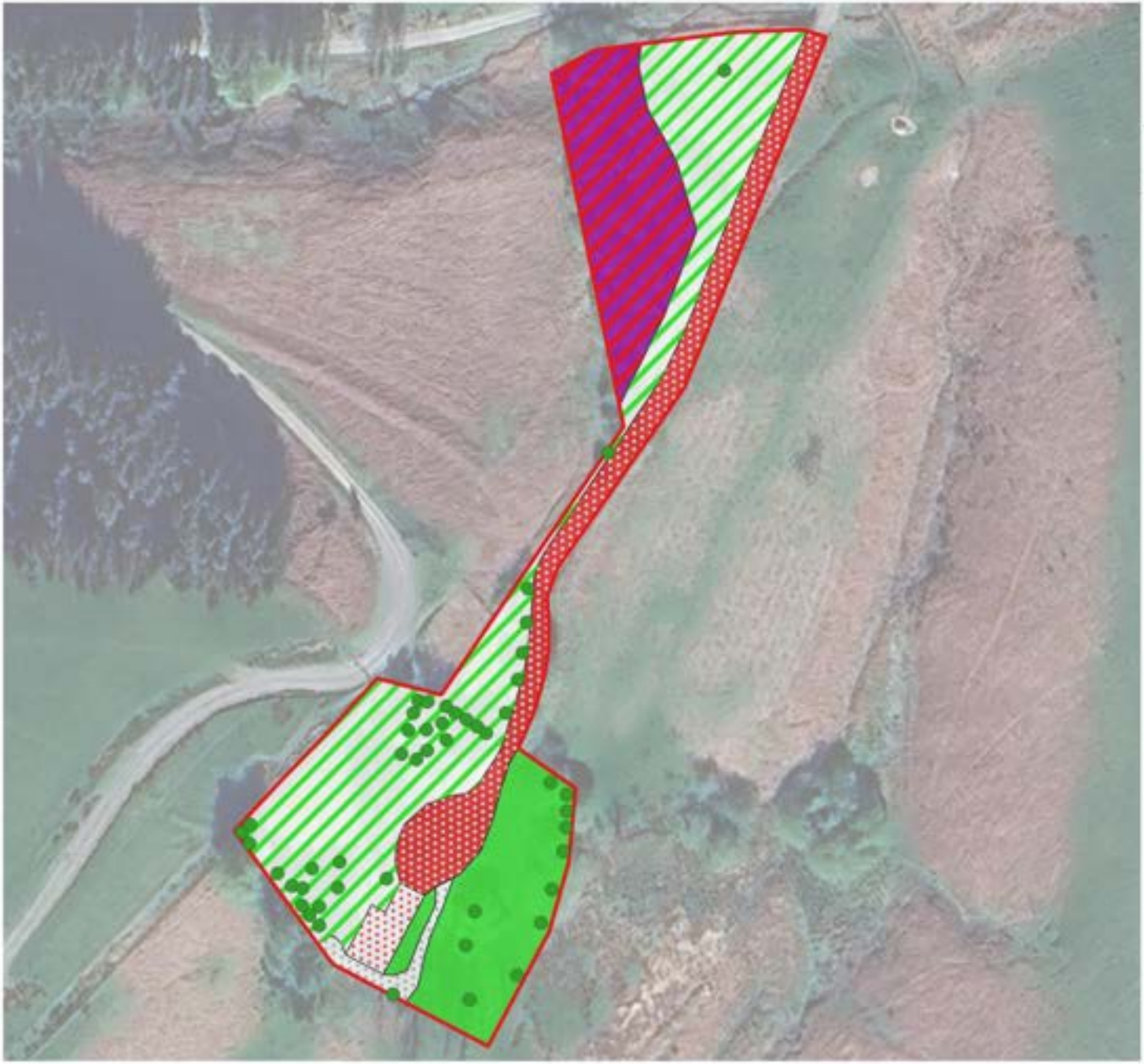
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Appendix I: Habitat Map

Site - Llan Gau
Reference - 20260003

Habitats

- g-32 Grassland - scattered trees
- g-510,32 Bare ground - scattered tree
- g1-12,32,50 Acid grassland - scattered bracken, scattered trees, ditch
- h3h Mixed scrub
- u1b5 Buildings
- u1c Artificial unvegetated, unsealed surface

Linear Habitats

- u1e Built linear features
- Scattered trees

0 25 50 m



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Appendix II: Target Notes

Site - Llan Gau
Reference - 20260003

Red Line

Target Notes

- T1 - Trees with potential for roosting bats
- T2 - Piles of cut vegetation and logs
- T3 - An ash tree with potential for roosting bats
- T4 - The cottage building
- T5 - A ruin attached to the cottage
- T6 - A ditch along the access track

0 25 50 m

Appendix II: **Target Notes**

T1	Potential Roost Features in trees within the areas of scrub.	
T2	Piles cut vegetation and logs.	
T3	A mature ash tree with visible Potential Roost Features.	
T4	The existing listed cottage building.	
T5	The ruin attached to the cottage building.	

T6	The ditch that extends along the access track.	

Appendix III: **Species Lists**

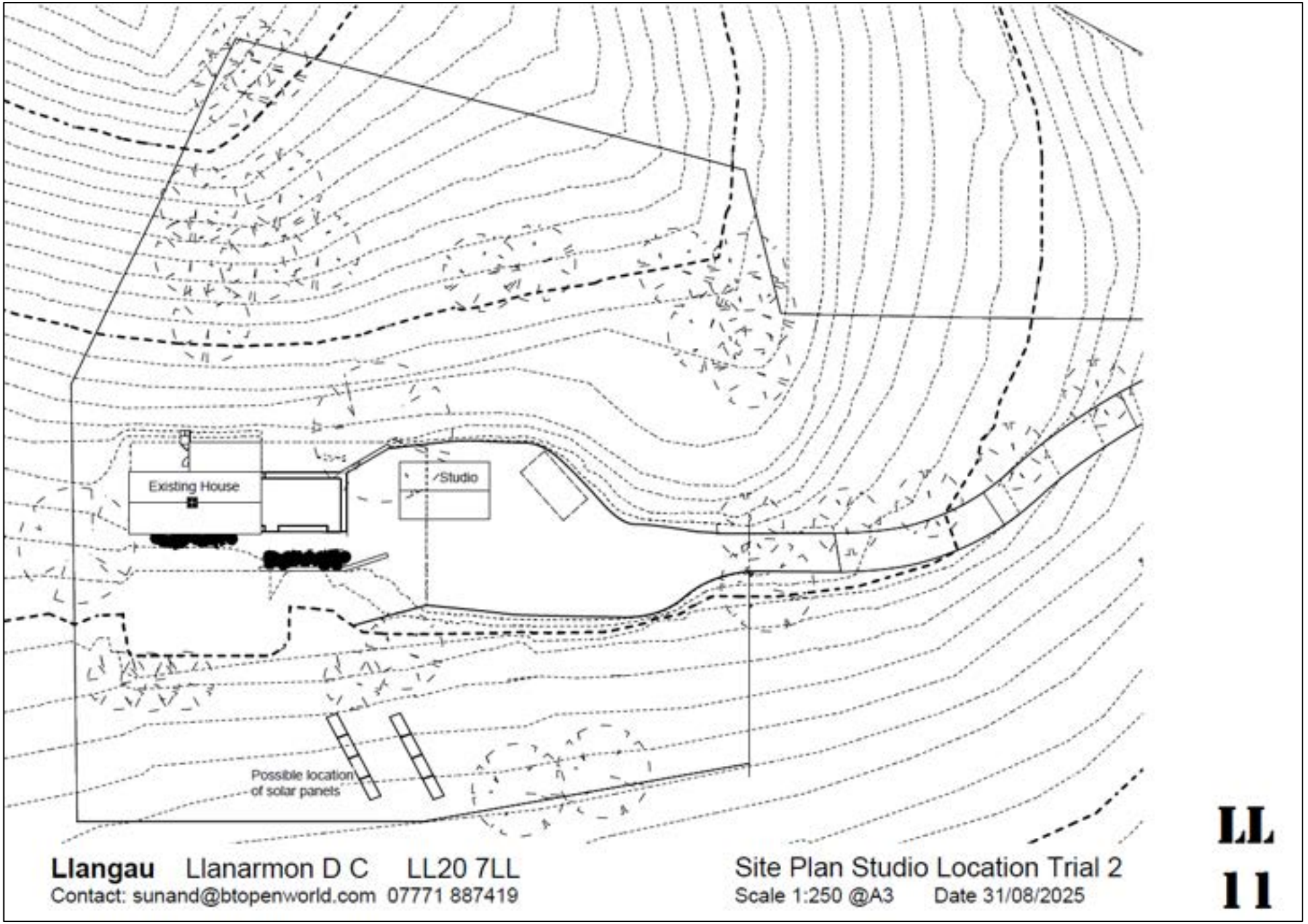
g Grassland	
Species Present	DAFOR Assessment
Tufted hair grass (*Deschampsia cespitosa*)	O
False oat grass (*Arrhenatherum elatius*)	F
Cocks foot (*Dactylis glomerata*)	F
Fescue (*Festuca sp.*)	O
Dock (*Rumex sp.*)	O
Cranesbill (*Geranium sp.*)	O
Nettle (*Urtica dioica*)	O
Buttercup (*Ranunculus sp.*)	O
Hogweed (*Heracleum sphondylium*)	R

g1 12,50 Acid grassland – scattered bracken, ditch	
Species Present	DAFOR Assessment
Bracken (*Pteridium aquilinum*)	A
Buttercup (*Ranunculus sp.*)	O
Chickweed (*Stellaria media*)	F
Dock (*Rumex sp.*)	R
Rush (*Juncus sp.*)	R
Sorrel (*Rumex sp.*)	R
Willowherb (*Epilobium sp.*)	R
Thistle (*Cirsium sp.*)	R
Nettle (*Urtica dioica*)	R
Fox glove (*Digitalis purpurea*)	O

h3h Mixed scrub	
Species Present	DAFOR Assessment
Willow (*Salix sp.*)	A
Hazel (*Corylus avellana*)	O
Hawthorn (*Crataegus monogyna*)	O
Tufted hair grass (*Deschampsia cespitosa*)	O
Buttercup (*Ranunculus sp.*)	O
Bracken (*Pteridium aquilinum*)	F
Fox glove (*Digitalis purpurea*)	O
Rush (*Juncus sp.*)	O
Moss	F

-32 Scattered trees	
Species Present	DAFOR Assessment
Field maple (*Acer campestre*)	O
Oak (*Quercus sp.*)	O
Willow (*Salix sp.*)	O
Ash (*Fraxinus excelsior*)	R
Hawthorn (*Crataegus monogyna*)	O
Aspen (*Populus tremuloides*)	R
Walnut (*Juglans regia*)	R
Silver birch (*Betula pendula*)	O
Larch (*Larix sp.*)	O
Fir (*Abies sp.*)	O
Sycamore (*Acer pseudoplatanus*)	O

Appendix IV: **Development Plans**







Studio V2 Massing Study Date 01/12/2025

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16

Appendix V: **Planning Policy and Species Legislation Summary**

1. Planning Policy

1.1. Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government. The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales. Section 6.4 relates to biodiversity and ecological networks.

1.2. Paragraph 6.4.3 states:

'The planning system has a key role to play in helping to reverse the decline in biodiversity and increase the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and secure enhancement.'

1.3. Paragraph 6.4.11 states:

'Planning authorities must follow a step-wise approach to maintain and enhance biodiversity, build resilient ecological networks and deliver net benefits for biodiversity by ensuring that any adverse environmental effects are firstly avoided, then minimised, mitigated, and as a last resort compensated for. Enhancement must be secured by delivering a biodiversity benefit primarily on site or immediately adjacent to the site, over and above that required to mitigate or compensate for any negative impact.'

2. Legislation Summary

Site	Legislation
Locally Designated Sites	Locally designated sites are not covered by any statutory legislation but are protected by local development plans.
Statutory Sites	Statutory sites are protected in different ways depending on the reason for the sites designated with sites being covered by legislation including the Wildlife and Countryside Act 1981 and the Habitats Directive.
Species and Habitats or Principal Importance	Species and habitats of principal importance are covered by the Natural Environment & Rural Communities Act 2006.

Species	Legislation	Offences include
Badgers	Protection of Badgers Act 1992	○ Wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or attempt to do so; ○ To intentionally or recklessly interfere with a sett (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).
Bats	Conservation of Habitats and Species Regulations 2017 (as amended) Wildlife and Countryside Act 1981	○ Deliberately kill, injure or capture a bat; ○ Deliberately disturb bats; ○ Damage or destroy a breeding site or resting place of a bat. ○ Obstruct access to any structure or place which any bat uses for shelter or protection; or ○ Disturb any bat while occupying a structure or place which it uses for that purpose.

Birds	Wildlife and Countryside Act 1981	o Intentionally kill, injure, or take any wild bird; o Intentionally take, damage or destroy a nest of any such bird whilst it is in use or being built; or o Intentionally take or destroy an egg of any such bird.
Crayfish	Wildlife and Countryside Act 1981	o Obstruct access to any structure or place which a crayfish uses for shelter or protection; or o Disturb a crayfish while occupying a place which it uses for that purpose.
Great Crested Newts	Conservation of Habitats and Species Regulations 2017 (as amended) Wildlife and Countryside Act 1981	o Intentionally or deliberately capture, injure, kill, or disturb the species; o Intentionally or recklessly damage, destroy or disturb a GCN in a place of shelter or protection, or obstruct access to such a place; or o Damage or destroy a breeding site or resting place.
Hazel Dormice	Conservation of Habitats and Species Regulations 2017 (as amended) Wildlife and Countryside Act 1981	o Deliberately capture, injure or kill a dormouse; o Deliberately disturb dormice; o Damage or destroy a breeding site or resting place of a dormouse o Obstruct access to any structure or place which a dormouse uses for shelter or protection; or o Disturb a dormouse while occupying a structure or place which it uses for shelter or protection
Otters	Conservation of Habitats and Species Regulations 2017 (as amended) Wildlife and Countryside Act 1981	o Deliberately capture, injure or kill any wild otter; o Deliberately disturb wild otters; o Damage or destroy a breeding site or resting place of an otters. o Disturb an otters while it is occupying a structure or place which it uses for shelter or protection; or o Obstruct access to such a place.
Red Squirrels	Wildlife and Countryside Act 1981	o Kill, injure or take a red squirrel; o Damage, destroy or obstruct access to any structure or place which a red squirrel uses for shelter or protection; or o Disturb a red squirrel while it is occupying a structure or place which is used for that purpose.
Reptiles (non EPS)	Wildlife and Countryside Act 1981	o Intentionally kill or injure a reptile.
Water Voles	Wildlife and Countryside Act 1981 Natural Environment & Rural Communities (NERC) Act 2006	o Intentionally capture, kill or injure water voles; o Intentionally or recklessly damage, destroy or block access to their places of shelter or protection; or o Disturb water voles while occupying a place of shelter used for that purpose.

Local authorities therefore have a duty to consider protected species as a material consideration when assessing planning applications. The ODPM Government Circular 06/2005 states: *'It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.'*