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PEA REPORT

PENALLTA ROAD, HENGOED, CF82 7GL

AMENITY PLANNING AND BLUEFIELD LAND

Document Ref: WWE24205 FINAL | 18/12/2024

Client:	Amenity Planning and Bluefield Land
Site/Job:	Penallta Road, Hengoed, CF82 7GL
Report title:	PEA report
Report reference:	WWE24205 PEA FINAL

Grid Reference:	ST 13975 95636
Survey date(s):	22/11/2024
Surveyed by:	Beth Lewis

VERSIONING AND QUALITY ASSURANCE

Status	Date	Author	Reviewed by	Approved by
Final	18/12/2024	Beth Lewis QCIEEM Consultant Ecologist	Dr Mererid Howells CEnv MCIEEM Principal Ecologist	Dr Mererid Howells CEnv MCIEEM Principal Ecologist

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The evidence which we have prepared and provided is true and has been prepared and provided in accordance with the guidance of The Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Purpose
Wildwood Ecology was commissioned by Amenity Planning and Bluefield Land (the client) to undertake a Preliminary Ecological Appraisal (PEA) at Penallta Road, Hengoed, CF82 7GL. The site is subject to the construction of 33 access flats and a retail unit, with associated roads, parking and amenity space.
Work undertaken
A PEA was undertaken, consisting of a desk study and an extended Phase 1 Habitat Survey, carried out in November 2024, following the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal (2017) guidelines and using UK Habitat Classification Version 2.0 codes (UK Hab, 2023). The offsite ponds were assessed for their suitability to support great crested newt using the Habitat Suitability Index (HSI) to assess habitat quality and the potential for great crested newt presence. A Ground Level Tree Assessment (GLTA) was carried out to assess the suitability of the trees for roosting bats.
Key Constraints
Due the proposed works, it is likely that in the absence of mitigation there will be adverse effects on the following designated sites, habitats and species: • modified grassland; • scrub; • other broadleaved woodland; • culvert; • common amphibians (including great crested newt); • barn owl; • roosting bats; • foraging bats and commuting; • nesting birds; • hazel dormouse; and • reptiles.
Recommendations
Further surveys are required as follows to determine the presence or likely absence of protected, priority, and notable species: • roosting bats; • foraging and commuting bats;

[1] CIEEM (2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys*. Chartered Institute for Ecology and Environmental Management, Winchester.

- barn owl (should heavy construction works be required);
- great crested newt; and
- reptiles.

Mitigation measures during the construction phase of the proposed development are required as follows:

- Construction Environmental Management Plan (CEMP) to mitigate impacts on the culvert, as well as the SSSI located partly within Parc Penallta country park.
- Should vegetation clearance take place in nesting bird season (1st March to 31st August) a nesting bird check by a suitably qualified ecologist will be undertaken.
- Precautionary working methods must also be undertaken for dormouse. An Ecological Clerk of Works (ECoW) will be required during any vegetation clearance of the scrub and woodland habitat onsite. This will involve a phased cut, where the vegetation is first checked by the ECoW for presence/signs of dormouse. Once clear, the vegetation can be cut to 30cm, it will then be checked again before being cut to ground level. In the highly unlikely event that dormouse are found onsite, works must cease and a EPS licence sought from NRW.
- Precautionary working methods should be put in place to prevent impacts on badger that may be moving through the site. These include capping pipes, covering up trenches overnight, or leaving a plank within trenches to prevent animals from becoming trapped.
- Should the construction phase of the development require heavy construction works, including ground levelling, pile driving, concrete crushing etc., and using heavy plant, it is more possible that nesting barn owl would be disturbed, and further surveys may be required to assess for the presence of nesting barn owl. Otherwise, should only general building and landscape works including laying of concrete, bricks, roofing using mechanised plant be used in the construction works, further surveys and mitigation are unlikely to be required in this case (as the required buffer zone (60m) for a barn owl nesting site does not fall in the footprint of the proposed development).
- Additionally, the disturbance risk of pedestrian movement and artificial lighting to nesting barn owls is low/medium. Therefore, as the required buffer zone (20m) for a barn owl nesting site does not fall in the footprint of the proposed development, further surveys and/or mitigation is unlikely to be required.
- If there is to be new lighting at the site, the increased disturbance and potential fragmentation as a result of light spill is likely to be high and may have an adverse effect on the favourable conservation status of the local bat populations. Therefore, a sensitive lighting strategy will required in order to mitigate the increased level of light spill and/or lux and reduce the impacts on foraging and commuting bats.
- Should any trees be required to be removed to facilitate the development, and they cannot be retained in any way, in line with planning policy, they must be

[1] CIEEM (2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys*. Chartered Institute for Ecology and Environmental Management, Winchester.

replaced at a 3:1 gain loss ratio. Should this not be possible onsite, offsite compensation will then need to be considered. • In addition, an Arboricultural Impact Assessment (AIA) will be required should any trees be removed or impacted. • Green infrastructure statement report will be required, detailing any baseline data considered, including habitats and species surveys, and how the net benefit for biodiversity, and how enhancements through the development design will be achieved
Conclusions
Further surveys are required in order to fully assess whether the proposed development will adequately mitigate, compensate, and enhance the protected, priority and notable habitats and species within and adjacent to the site.

This report will remain valid for a maximum period of 18 months from the date of the last survey[1] - i.e. until 22/05/2026. In the case of certain exceptions, data may only be valid for 12 months, examples include:

- where a site may support existing or new features which could be used by mobile species, such as bats and birds, within a short timeframe;
- where bats and birds are present onsite or in the wider area, and can create new features of relevance to the assessment; and
- where country-specific or species-specific guidance dictates otherwise.

Further surveys may be required to update the site information if planning is not obtained, or works do not commence within this time period.

[1] CIEEM (2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys*. Chartered Institute for Ecology and Environmental Management, Winchester.

1. INTRODUCTION

1.1. Wildwood Ecology was commissioned by Amenity Planning and Bluefield Land (the client) to undertake a Preliminary Ecological Appraisal (PEA), Habitat Suitability Index (HSI) and Ground Level Tree Assessment (GLTA) at Penallta Road, Hengoed, CF82 7GL (the site), centred at grid reference: ST 13975 95636.

1.2. This report has been written in cognisance of the CIEEM Guidelines on: Ecological Report Writing and Preliminary Ecological Appraisal, with full survey methodology provided in the appendices.

Site description

1.3. The aerial image of the site (Figure 1) showed the site to consist of treeline, woodland, scrub and grassland with areas of bare ground. The site is bordered by residential housing to the east and industrial buildings to the north. Park Penallta Country Park is located to the west and south of site.

Proposed development

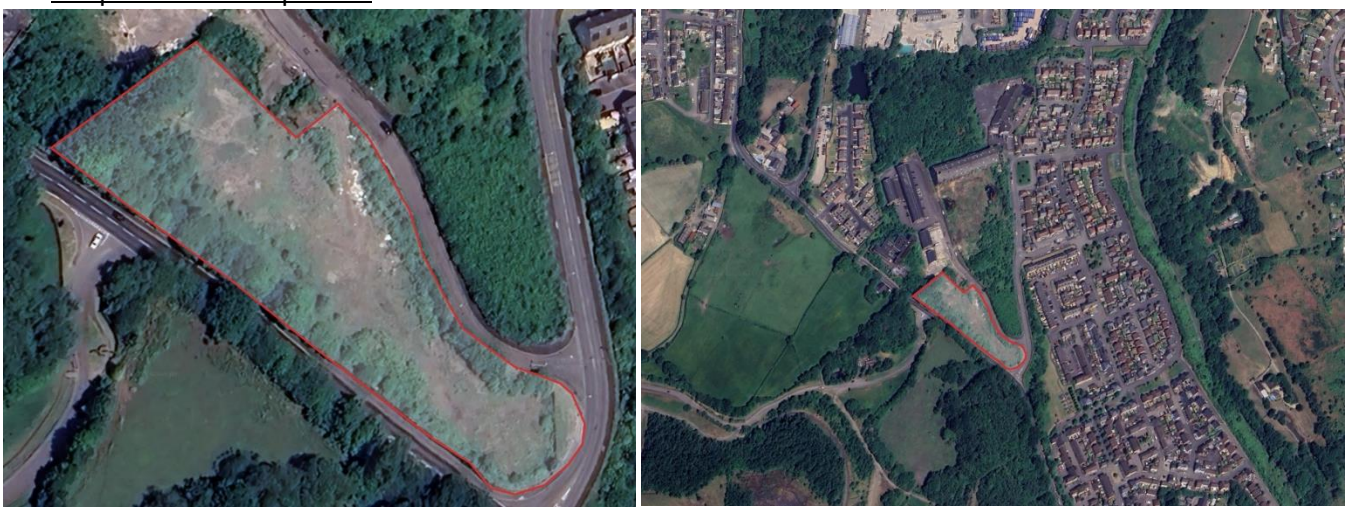


Figure 1 - Aerial image of the site. Red line shows the site boundary. Image used under licence (@2023 Google). Figure created: 02/12/2024.

1.4. The site is subject to a Full planning application for construction of 33 access flats and a retail unit, with associated roads, parking and amenity space.

Data collected

1.5. The data informing this report was collected from field survey and desk study. Desk study data was collected from the following sources on 21/11/2024:

- Local Records Centre *(if required); and*
- Multi-Agency Geographic Information for the Countryside (MAGIC).

1.6. Full information on the data sets used and the search buffers can be found in the appendices.

1.7. No previous survey data or reports are available for this site.

Purpose of this report

1.8. The purpose of this report is to provide sufficient information for the local planning authority to fully assess the ecological impacts of the proposed development, or to identify what further information is required, if any, before a full assessment can be made in the form of an Ecological Impact Assessment (EcIA).

1.9. The key objectives of this PEA are to:

- identify the likely ecological constraints associated with the proposed development;
- identify mitigation measures likely to be required, following the 'Mitigation Hierarchy';
- identify additional surveys that may be required to inform an EcIA; and
- identify the opportunities for the proposed development to deliver ecological enhancement.

1.10. This PEA can be used as a scoping report, but unless it can be determined that the project would have no significant ecological effects, no mitigation is required and no further surveys are necessary, the PEA will need to be superseded by an EcIA report prior to submission.

Limitations and assumptions

1.11. Although the UK Habitat Classification Survey falls outside the recommended seasonal period for botanical surveys, the evaluation and habitat descriptions (and hence the impacts and their significance), are considered to be accurate for the following reasons:

  - given the type of vegetation and habitats present, the valuation of the intrinsic interest is considered unlikely to change. However, as further surveys are to be required onsite in the spring, the species list and habitat conditions will be updated during these site visits.

1.12. No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and recording undertaken an accurate assessment of the site's ecological importance has been made.

2. RESULTS

Links to the surrounding landscape

2.1. The site has good connectivity to the surrounding landscape via treelines and woodland connecting the site to the nearby woodland and fields to the west of site.

2.2. The wider landscape is comprised of residential housing to the east, industrial estate to the north and a country park, woodland and fields to the west and south.

Desk study

Designated sites

2.3. There was one statutory international designated site requiring special consideration (Special Areas of Conservation (SAC) within 10km. Aberbargoed grasslands was located 3.6km north-east of site.

2.4. There was one statutory national designated sites (Site of Special Scientific Interest (SSSI) 2km. Nelson Bog SSSI was situated 1.2km north-west from site.

2.5. There were five non-statutory sites (Sites of Interest to Nature Conservation (SINC) and Local Wildlife Sites (LWS)) within 1km of the site. The closest of which was Coed Penallta and Railway Line, Ystrad Mynach located 549m south-east of the site.

2.6. Parc Penallta Country Park is directly adjacent to site (31m north-west).

Light pollution

2.7. The site is in a suburban area with medium levels of light pollution (VIIRS Data Base (2022)).

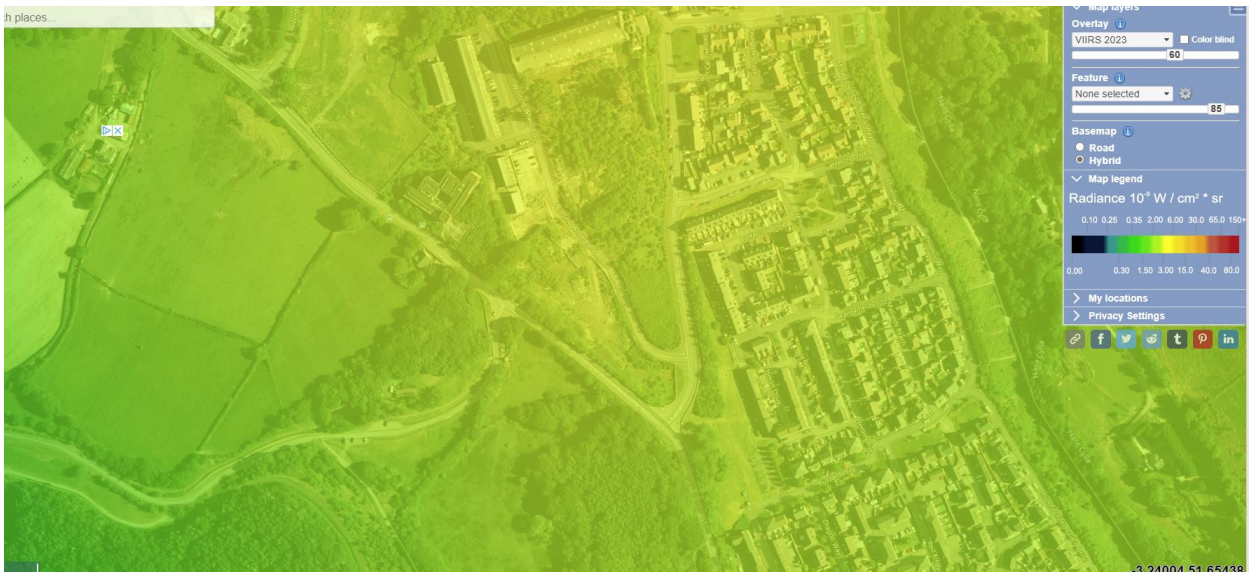


Figure 2 - Light pollution map.

Habitat Regulations Assessment (HRA) Screening

2.8. The site was not situated within the zone of influence (ZoI) of any international designated sites. Therefore, due to the distance of the development from the international designated sites and/or lack of identified impact pathways, a Habitat Regulations Assessment is considered unlikely to be required.

Priority and protected species

2.9. Priority and protected species records were returned from South East Wales Biodiversity Records Centre (SEWBReC) for species located within 2km of the site. Key species records can be found below, with the full data set available on request.

- A maternity roost of the following species were returned within the search radius: pipistrelle, soprano pipistrelle, The closest of which was an unidentified pipistrelle species 339m distant from the site.
- Two records of setts and field signs of badger were returned within the search radius. The closest sett record was destroyed under EPS licence.
- One record of hazel dormouse (gnawed nut) was returned 1.1km from the site.
- 27 records of otter were recorded within the vicinity, the closest of which was possible footprints 718m distant. One record of a possible holt was located 1.7km distant.
- Seven field signs records of water vole within the vicinity of the site.
- 23 records of great crested newt were returned, the closest of which was 325m distant.
- A possible nest site of barn owl was noted 146m distant from site. 132 records of Schedule 1 birds were recorded within the vicinity of the site.

Field survey – PEA

2.10. A PEA survey was undertaken at the site on 22/11/2024, led by Beth Lewis QCIEEM Consultant Ecologist. Survey details can be found in Table 1.

Table 1 - Field survey timings and conditions.

Date	Weather conditions			
	Temp [°C]	Cloud cover [Oktas]	Wind speed [Beaufort scale]	Rain
22/11/2024	4	3	1	Nil

2.11. Table 2 sets out descriptions of the habitats present within the site using UK habitat Classification Version 2.0 codes, along with a list of species present.

2.12. The distribution and extent of habitat parcels at the site, along with the locations of any target notes, are included within a habitat plan in the appendices, alongside an accompanying full species list.

Table 2 - Habitats and linear features present within the site.

Habitat	Habitat description	Species present
g4 - Modified grassland Secondary codes: 10, 14, 82, 504, 510 (scattered scrub, scattered rushes, vacant or derelict land, waterlogged, bare ground)	Modified grassland was present across the majority of the site, with scattered areas of scrub and mounds comprised of scrub, boulders, and refuse. There were small parcels of damp/waterlogged areas. There was some evidence of movement of machinery, as shown by	Buddleja, cow parsnip, creeping bent, lesser knapweed, orchard grass, oxeye daisy, rush sp., speedwell sp., square-stalked willowherb, sow thistle, willowherb sp., willow sp.
r2b - Other rivers and streams Secondary codes: 50, 851 (ditch, culvert)	A culvert was present, flowing from the under the road along the western boundary into the north-west corner of site. The flow rate and level were very low considering the amount of recent rain.	Juniper haircap, rush sp., speedwell sp.
w1g - Other broadleaved woodland Secondary codes: 30, 33, 202, 522, 851 (semi-natural woodland, line of trees, young trees-self set, native, culvert)	Woodland was present along the west and northern boundaries of the site. This parcel comprised higher density in the north-west corner of site compared to the west boundary. It also comprised a culvert/drain flowing under the road adjacent to site into the north-west corner of site.	Canopy: alder, ash, birch sp., elm, goat willow, hazel, pedunculate oak sessile oak, silver birch and willow sp. Understorey: Bramble, buddleja and holly. Ground flora: bent grass, bird's-foot trefoil, bitter dock, cock's foot, creeping buttercup, creeping cinquefoil, creeping thistle, dandelion, delicate fern moss, false broom, figwort sp., ground ivy, hemp agrimony, horsetail sp., lesser knapweed, male fern, ribwort plantain, and rush sp.
h3h - Mixed scrub Secondary codes: 202 (line of trees)	Parcels of mixed scrub were present along the eastern boundary.	Buddleja, bramble, willow sp.

Priority habitats

2.13. There was a parcel of ancient semi-natural woodland present across the road from the site (it formed part of Park Penallta Country Park). The ASNW was 32m south-west of the site, separated by a busy A road.

Priority, protected, and notable species

2.14. The suitability of the site habitats for protected species, the connectivity of the site, and any evidence identified can be found in Table 3.

Table 3 - Protected species onsite.

Species or group	Habitat suitability	Site connectivity	Presence confirmed?
Amphibians, including great crested newt	Good	Good	No evidence identified but the site contains some suitable habitat and is well connected to suitable habitat offsite
Badger	Poor	Poor	No evidence onsite and the site offered some suitable habitat but is poorly connected to suitable habitat offsite
Barn owl	Poor	Good	No evidence identified onsite and contains no suitable nesting habitat. However, the desk study revealed a barn owl record (potential nesting site) directly adjacent to site.
Bats: foraging and commuting	Good	Good	No evidence identified but the site contains suitable habitat and is well connected to suitable habitat offsite
Birds	Good	Good	No evidence identified but the site contains suitable habitat and is well connected to suitable habitat offsite
Fish	Poor	Poor	No evidence identified onsite and there was no suitable habitat onsite.
Hazel dormouse	Good	Poor	No evidence identified onsite and there was limited suitable habitat onsite and was poorly

			connected to suitable habitat offsite.
Hedgehog	Good	Good	No evidence identified but the site contains suitable habitat and is well connected to suitable habitat offsite
Invertebrates	Good	Good	No evidence identified but the site contains suitable habitat and is well connected to suitable habitat offsite
Otter	Poor	Poor	No suitable habitat and the site is not well connected to suitable habitat offsite
Reptiles	Good	Good	No evidence identified but habitat is highly suitable
Water vole	Poor	Poor	No suitable habitat and the site is not well connected to suitable habitat offsite

Invasive species

2.15. No invasive species were noted onsite.

3. IMPACTS

3.1. The following discussion and assessment is provided to ensure compliance with legislation and planning policy (see Appendices).

Impacts of the proposed development

3.2. The proposed development will result in the loss of the modified grassland, scrub and some of the woodland, and modification of a culvert to allow for development of 33 access flats with associated roads and parking, a retail unit and amenity space.

3.3. Due the proposed works, it is likely that in the absence of mitigation there will or may be adverse effects on the following designated sites, habitats, and species:

- modified grassland;
- scrub;
- other broadleaved woodland;
- culvert;
- common amphibians (including great crested newt);
- barn owl;
- roosting bats;
- foraging bats and commuting;
- nesting birds;
- hazel dormouse; and
- reptiles.

Designated sites

3.4. All pressure codes on SACs can be scoped out, due to the codes being only internal or not relevant to the proposed development.

3.5. Given the scale and type of the proposed development, the distance of the designated sites from the site, and the lack of likely impacts beyond the site boundary, no impacts on their designated features are anticipated as a result of the works.

3.6. Nelson Bog SSSI was situated within Parc Penallta country park, 2.1km distant from site. The SSSI is sufficiently separated from site that there will be no direct impacts from the proposed development, through pollution from construction dust and/or disturbance, for example. Already highly used by existing residents in the area, significant additional footfall impacts are unlikely.

3.7. Although the country park adjacent to site may be impacted by the development due to a potentially higher footfall from increased residential housing, it, along with the internal SSSI, is already highly used by existing dense residential areas around the park. Significant additional footfall and, therefore, impacts on the country park and SSSI are not considered to be substantial.

Priority, protected, and notable habitats

3.8. Common and widespread habitats which are of limited ecological importance are not discussed further as they will be compensated by native and wildlife-friendly planting and general landscaping across the site.

3.9. The ancient semi-natural woodland adjacent to site was sufficiently separated by a road that there will be no impacts on this habitat.

Amphibians (including great crested newt)

3.10. Desk study data, and correspondence with the LPA ecologist whilst arranging access to nearby ponds, confirmed that amphibians, including great crested newt are present in the surrounding landscape. Furthermore, there were 15 waterbodies within 1km of the site, one of which, a culvert, was present onsite, one (a pond) was located 156m from site, and six within 500m of the site.

3.11. The proposed works will result in damage to the culvert due to modification of the watercourse. The culvert was present in the north-west corner of site flowing from the Park Penallta Country Park under the road adjacent to site. The park had records of great crested newt. Therefore, it is considered likely that this culvert could provide a commuting habitat route for great crested newt which may consequently be present onsite.

3.12. Onsite habitats (modified grassland with scattered scrub and woodland understorey) were suitable to support great crested newt in its terrestrial phase. Additionally, although access via terrestrial habitat was limited due to the presence of multiple roads, car parks and walls, connectivity between the onsite habitats and nearby ponds in Park Penallta was good via the culvert.

3.13. Following consideration of the above, in the absence of mitigation during works, there may be an adverse impact on great crested newt or common amphibians due to impacts on them or their existing onsite habitats.

Badger

3.14. No incidental badger evidence (latrines, tracks, hair, snuffle holes or setts) was observed during the habitat survey.

3.15. The proposed development will not impact potential badger foraging habitat.

Barn owl

3.16. There was no suitable habitat for barn owl onsite. However, during the desk study it was noted that a possible barn owl nesting site was located 146m distant from site. It is possible that the construction, would impact nesting barn owl through disturbance. However, there was very limited suitable foraging habitat onsite and substantial habitat in the nearby Country Park, so it is considered highly unlikely the development would impact foraging habitat and habits of the potential nesting barn owl.

3.17. Should the construction phase of the development require heavy construction works, including ground levelling, pile driving, concrete crushing etc., and using heavy plant, it is more possible that nesting barn owl would be disturbed, and further surveys may be required to assess for the presence of nesting barn owl. Otherwise, should only general building and landscape works including laying of concrete, bricks, roofing using mechanised plant be used in the construction

works, further surveys and mitigation are unlikely to be required in this case (as the required buffer zone (60m) for a barn owl nesting site does not fall in the footprint of the proposed development).

3.18. Additionally, the disturbance risk of pedestrian movement and artificial lighting to nesting barn owls is low/medium. Therefore, as the required buffer zone (20m) for a barn owl nesting site does not fall in the footprint of the proposed development, further surveys and/or mitigation is unlikely to be required.

3.19. Should heavy construction works be required during the proposed development, consultation with the county ecologist following the PAC process may be useful in determining next steps.

3.20. The sensitive lighting strategy advised to be in place for bats, should there be additional lighting (lux levels and light spill) onsite, will also be of benefit mitigation for barn owls.

Bats: foraging and commuting

3.21. The suitability for the treeline/woodland located along the north and west site boundaries to be used as potential flight-paths was high. Additionally, the potential for the habitats onsite to be used as foraging habitat was also high.

3.22. Therefore, these linear features must remain unfragmented in order to prevent potential impacts on bats, and in particular light-averse bat species. Fragmentation can occur by physical removal of the habitat/feature, but also through artificial light spilling onto them.

3.23. Current proposals indicate that there will be new external and internal lighting included in the proposed development and therefore an increase in light spill is is anticipated.

3.24. Particular consideration must be given to preserving dark flights-lines and preventing light spill on the woodland habitats.

Birds

3.25. It is considered likely that nesting birds use all of the habitats present onsite.

Hazel dormouse

3.26. No incidental observations of old and/or active dormouse nests were made at the site during the PEA.

3.27. The onsite habitat suitable for dormouse (woodland and scrub) provided good vegetation structure and foraging resource for dormouse.

3.28. Onsite connectivity to the surrounding landscape was limited with residential housing and roads present to the east and south of site, separating the site from the river and woodland corridor. The woodland comprising the south of Park Penallta offered good dormouse habitat. However, it is separated from the site by a single carriage road, which may act as a barrier but not an extensive one.

3.29. Therefore, in the absence of mitigation during vegetation clearance of the woodland there may be an adverse impact on hazel dormouse as a result of the proposed development, due to the potential for killing/injury of dormouse and/or

habitat destruction/damage (if present), triggering legislation that protects dormouse.

Otter

3.30. The closest river to the site was the Nant Cylla, located 291m from the site. The River was separated from site by residential housing and roads, with more suitable habitat along the river corridor, so it was considered unlikely that otter would be present onsite.

3.31. The site itself did not contain habitat suitable to support commuting/foraging otter. The culvert onsite was not suitable for otter, with no bank vegetation and a very low flow. Although the culvert extended under the road, to flow through Park Penallta which, as noted on MagicMaps contained ditches which may be suitable for otter; it is considered unlikely as all the records of otter in the area were located along the Nant Cylla to the east of site.

3.32. Given the size of the proposed development, it is considered unlikely that otter will be adversely affected by the proposed development due to killing/ injury/habitat destruction or damage, triggering legislation that protects otter. Furthermore, the development will not impact the ability of otter to commute across the surrounding landscape.

3.33. Impacts on the local otter population (if present) are reasonably unlikely and there is unlikely to be adverse impacts on local otter populations as a result of the development.

3.34. However, consideration will be required regarding the modification of the culvert and steps put in place to mitigate soil runoff impacting the watercourse itself and those connected to it.

Reptiles

3.35. Suitable onsite habitat consisted of scattered scrub and woodland edges. Onsite habitats were considered good for reptiles to use them for basking, commuting, and foraging.

3.36. Additionally, features suitable to provide shelter and hibernation opportunities for reptiles were present onsite.

3.37. The surrounding landscape and associated features were considered suitable reptile habitat and it is likely that the site supports a variety of common and uncommon reptile species.

3.38. In the absence of mitigation, there may be a negative impact on reptiles as a result of the proposed development due to killing/ injury (if present), triggering legislation that protects reptiles.

Water vole

3.39. A single onsite waterbody, the culvert, was present. It contained no bankside or emergent vegetation and the water depth and flow rate was very low. The depth was estimated to be less than 5cm. Therefore, there was no suitable terrestrial water vole habitat.

3.40. Additionally, there were no records of water vole within the vicinity of the site.

3.41. However, consideration will be required regarding the modification of the culvert and steps put in place to mitigate soil runoff impacting the watercourse itself and those connected to it.

3.42. In the absence of mitigation there is unlikely to be an adverse effect on water vole as a result of the proposed development.

4. GROUND LEVEL TREE ASSESSMENT AND HABITAT SUITABILITY INDEX ASSESSMENT

Field survey

4.1. A GLTA survey was undertaken at the site on 22/11/2024 led by Beth Lewis QCIEEM Consultant Ecologist.

4.2. Descriptions of the trees surveyed during the PRA are summarised in Table 4.

Table 4 - Trees surveyed during the GLTA.

Tree reference	Tree description	Development plans
T1	Semi-mature, multi-stemmed, species unknown	Unknown at this stage
T2	Semi-mature birch species	Unknown at this stage
T3	Semi-mature birch species	Unknown at this stage
T4	Mature, multi-stemmed, species unknown	Unknown at this stage
T5	Dead tree, species unknown	Unknown at this stage
T6	Mature oak species	Unknown at this stage
T7	Dead tree, starting to rot, species unknown	Unknown at this stage
T8	Mature oak species	Unknown at this stage
T9	Mature oak species	Unknown at this stage
T10	Mature oak species	Unknown at this stage
T11	Mature oak species	Unknown at this stage

4.3. Due to the suitability of onsite trees for roosting bats, a full GLTA was undertaken. The GLTA involved a detailed inspection of the trees with suitability, with full details of the trees inspected and their potential roost features (PRFs) found in Table 5.

Table 5 - Ground Level Tree Assessment results

Tree reference	Tree species	PRF type	PRF height	PRF aspect	PRF description
T1	Unknown	Association	Entire stem	All	Moderate ivy cover
T2	Birch sp.	Association	Entire stem	All	Moderate to high ivy cover
T3	Birch sp.	Association	Entire stem	All	Light ivy cover
		Decay	2m	South-east	Dead branch, rotted with holes
T4	Unknown	Association	Entire stem	All	High ivy cover
		Damage	5m	North	Crack in branch
T5	Dead sp. unknown	Association	Entire stem	All	Moderate ivy cover

Tree reference	Tree species	PRF type	PRF height	PRF aspect	PRF description
T6	Oak sp.	Damage/decay	10m	West	Snapped branch with linear crack, starting to rot
		Association	Entire stem	All	Moderate ivy cover (mature)
T7	Dead sp. unknown	Decay	Entire stem	All	Rotting
		Association	Entire stem	All	Moderate ivy cover
T8	Oak sp.	Damage	8-10m	West	Multiple snapped branches
			6m	South	Snapped branch
			6m	South	Tear out
T9	Unknown	Damage	4m	West	Snapped branch
T10	Oak sp.	Decay	4m	North	Knothole
T11	Oak sp.	Damage	1.5 and 2m	East	Snapped branch
			5m	South	Snapped branch

4.4. Additionally, onsite features are likely to be used by foraging and commuting bats, especially across the woodland habitat and along the treeline at the western boundary.

Birds

4.5. No bird nests were observed within the onsite trees, however it is considered likely that nesting birds use the trees present onsite.

Conclusions

4.6. Suitability for roosting bats was noted as present within the onsite trees. Therefore, further survey work will be required in order to determine whether the PRFs identified are indeed suitable for bats, i.e. an endoscope check on those trees with crevices to determine whether the features extend. An ivy strip is also required on trees with ivy cover to determine whether there are PRFs present that were obscured by the ivy during the initial survey.

Amphibians (including great crested newt)

HSI

4.7. The results of the Habitat Suitability Index (HSI) assessment undertaken at the waterbodies offsite can be seen in Tables 6 and 7. The pond locations are shown in Appendix VI.

Table 6 - Habitat Suitability Index assessment results – Pond 1.

Pond 1		
Attribute	Result	SI score
SI_1 - Location	Zone B	0.5
SI_2 - Pond area (m^2)	250m²	0.3
SI_3 - Pond drying	Never dries	0.9
SI_4 - Water quality	Good	1.0
SI_5 - Shade	60%	0.9
SI_6 - Fowl	Absent	1.0
SI_7 - Fish	Absent	1.0
SI_8 - Ponds	1	0.4
SI_9 - Terrestrial habitat	Good	1.0
SI_{10} - Macrophytes	60%	0.9
HSI calculation	= (SI1 x SI2 x SI3 x SI4 x SI5 x SI6 x SI7 x SI8 x SI9 x SI10) $^{1/10}$	
HSI score	0.73	
Pond suitability	Good	

Table 7 - Habitat Suitability Index assessment results – Pond 2.

Pond 2		
Attribute	Result	SI score
SI_1 - Location	Zone B	0.5
SI_2 - Pond area (m^2)	Under 50m²	0.05
SI_3 - Pond drying	Never dries	0.9

SI_4 - Water quality	Moderate	0.67
SI_5 - Shade	40%	1.0
SI_6 - Fowl	Absent	1.0
SI_7 - Fish	Absent	1.0
SI_8 - Ponds	1	0.4
SI_9 - Terrestrial habitat	Good	1.0
SI_{10} - Macrophytes	40%	0.7
HSI calculation	= (SI1 x SI2 x SI3 x SI4 x SI5 x SI6 x SI7 x SI8 x SI9 x SI10) $^{1/10}$	
HSI score	0.58	
Pond suitability	Below average	

4.8. Following the results of the HSI survey, eDNA surveys should be undertaken on both of these ponds to help establish whether GCN are present and therefore whether they are present onsite. eDNA kits should be used to sample the waterbodies. Recommended eDNA sampling locations can be found in the appendices.

5. RECOMMENDATIONS

Designated sites

5.1. Given the scale and type of the proposed development, the distance of the designated sites from the site, and the lack of likely impacts beyond the site boundary, no impacts on their designated features are anticipated as a result of the works.

5.2. Nelson Bog SSSI was situated within Parc Penallta country park, 2.1km distant from site. The SSSI is sufficiently separated from site and there will be no direct impacts from the proposed development, through pollution from construction dust and/or disturbance, for example. Already highly used, a significant increase in footfall, and therefore, impacts are unlikely.

5.3. However, the country park adjacent to site may be impacted by the development due to a potentially higher footfall from increased residential housing. However, the country park, and internal SSSI, are already highly used (there is existing dense residential areas around the park) so it is considered that there will be no more significant additional footfall, therefore, impacts on the country and SSSI are unlikely.

Habitats

5.4. Due to the proposed development indicating a modification to the onsite watercourse (culvert), a Construction Environmental Management Plan (CEMP) is required to include details on how pollution of the nearby waterbody will be prevented. Methods employed by the CEMP should include the provision of silt fencing to prevent soil run off and the creation of a dedicated chemical storage area located at least 5m away from the bank of any waterbody.

5.5. The trees onsite should be retained in the first instance. However, should any trees be required to be removed to facilitate the development, and they cannot be retained in any way, in line with planning policy, they must be replaced at a 3:1 gain loss ratio. Should this not be possible onsite, offsite compensation will then need to be considered.

5.6. In addition, an Arboricultural Impact Assessment (AIA) will be required should any trees be required to be removed or impacted.

5.7. A green infrastructure statement report will be required, detailing any baseline data considered, including habitats and species surveys, and how the net benefit for biodiversity, and how enhancements through the development design will be achieved.

Priority, protected, and notable species

Amphibians (including great crested newt)

5.8. It is recommended that eDNA testing of the nearby waterbodies will be undertaken in order to confirm presence or absence of great crested newt. If presence of great crested newt is confirmed, six further traditional surveys (between mid-February and mid-June, with at least half of the survey visits between mid-April and mid-May will be required to establish population density to inform a full European Protected Species Licence (EPSL). These timescales are

those detailed in the new guidelines (Great Crested Newt Survey and Mitigation Guidelines 2025) which are currently unapproved. Therefore, please note that, should this be a concern with the LPA ecologist and/or NRW, the survey window detailed in the current accepted guidelines will be adhered to.

Badger

5.9. Precautionary working methods should be put in place to prevent impacts on badger that may be moving through the site. These include capping pipes, covering up trenches overnight, or leaving a plank within trenches to prevent animals from becoming trapped.

Barn owl

5.10. It is possible, due to the close proximity of the possible barn owl nesting site, that the construction phase of the development would impact nesting barn owl. Therefore, should the construction phase of the development require heavy construction works, including ground levelling, pile driving, concrete crushing etc., and using heavy plant, it is more possible that nesting barn owl would be disturbed, and further surveys may be required to assess for the presence of nesting barn owl. Otherwise, should only general building and landscape works including laying of concrete, bricks, roofing using mechanised plant be used in the construction works, further surveys and mitigation are unlikely to be required in this case (as the required buffer zone (60m) for a barn owl nesting site does not fall in the footprint of the proposed development).

5.11. Additionally, the disturbance risk of pedestrian movement and artificial lighting to nesting barn owls is low/medium. Therefore, as the required buffer zone (20m) for a barn owl nesting site does not fall in the footprint of the proposed development, further surveys and/or mitigation is unlikely to be required.

5.12. Should heavy construction works be required during the proposed development, consultation with the county ecologist following the PAC process may be useful in determining next steps.

5.13. The sensitive lighting strategy advised to be in place for bats, should there be additional lighting (lux levels and light spill) onsite, will also be of benefit mitigation for barn owls

Bats: foraging and commuting

5.14. Onsite light levels were low and overall site radiance was moderate. However, it is considered likely that the site will be used by foraging and commuting bats, including light-averse bat species.

5.15. The site is not of sufficient size to undertake night-time bat walkover surveys, therefore, static detectors will be deployed instead in order to assess the use of the site by foraging and commuting bats, static detectors will be deployed at the site. Data will be collected for a minimum of five nights per month (April to October).

5.16. If there is to be new lighting at the site, the increased disturbance and potential fragmentation as a result of light spill is likely to be high and may have an adverse effect on the favourable conservation status of the local bat populations. Therefore, a sensitive lighting strategy will required in order to mitigate the

increased level of light spill and/or lux and reduce the impacts on foraging and commuting bats.

Bats: roosting

5.17. The trees noted during the GLTA with moderate to high ivy cover will require an ivy strip to determine the presence of potential roost features obscured by the ivy. One more efficient method would be severing the ivy at base late summer/autumn to allow it die back over the winter, before another check is undertaken. Alternatively, an ivy strip can be undertaken by accessing the tree by MEWP and stripping the ivy by hand under supervision by an Ecological Clerk of Works (ECoW), once this has been done, a check of the trees can also be undertaken.

5.18. Some of the trees noted in the GLTA possessed potential roost features and therefore, require further investigation. The features can be endoscoped by a bat licenced ecologist. Should the endoscope check reveal that the potential roost features do extend and offer suitability for a maternity roost of bats, three further endoscope surveys in active bat season (May to August, inclusive) must be carried out.

Birds

5.19. The site clearance works will commence outside of the bird nesting season or, if work has to carried out during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable conditions), a nesting bird check will be required and must be carried out by a suitably qualified ecologist. Active nests should be protected by a suitable buffer, as instructed by the ecologist, until the young have fledged, as confirmed by the ecologist. Where a Schedule 1 species (as defined in the Wildlife and Countryside Act) is confirmed to be present, compensation for impacts, e.g., loss of nesting sites, should be devised and implemented.

Hazel dormouse

5.20. The woodland onsite was not considered to be highly suitable for dormouse due to the limited understorey structure and is not well connected to the wider landscape. Therefore, further surveys will not be required.

5.21. However, an Ecological Clerk of Works (ECoW) will be required during any vegetation clearance of the scrub and woodland habitat onsite. This will involve a phased cut, where the vegetation is first checked by the ECoW for presence/signs of dormouse. Once clear, the vegetation can be cut to 30cm, it will then be checked again before being cut to ground level. In the highly unlikely event that dormouse are found onsite, works must cease and a EPS licence sought from NRW.

Otter

5.22. As otter are not anticipated to be using onsite habitats and there were no nearby waterbodies likely to be used by otter, no otter surveys are recommended.

Reptiles

5.23. The scrub, grassland and woodland edges offered suitable habitat for rare and common reptile species. Therefore, a reptile presence/absence survey will be

required in order to confirm if reptiles are using the site and provide an estimate on species population sizes.

5.24. Should reptiles be recorded onsite, it is likely that a reptile translocation will be required. A suitable receptor site will be identified for the reptiles to be translocated to. In order to translocate, artificial refugia will be deployed onsite and twice daily site visits will be undertaken, in suitable weather conditions. The translocations will be carried out until a series of nil returns are achieved. Should this translocation be required a reptile mitigation strategy will be produced and will further detail the translocation methods.

Water vole

5.25. As water vole are not anticipated to be using onsite habitats and there were no nearby waterbodies likely to be used by water vole, no water vole surveys are recommended.

Biodiversity enhancement

5.26. Local authorities have a duty to seek to maintain **and enhance** biodiversity in the exercise of their functions.

5.27. Where possible, the existing onsite habitat of ecological importance will be retained to ensure that habitats and species that rely on them are not adversely affected by the development. Native species of local provenance (and grown in the UK) or ornamental plants with known wildlife value will be used for new onsite planting.

5.28. Further onsite habitat retention, creation or enhancement may be required as part of the required net benefit for biodiversity.

5.29. Bird nesting boxes and bat roosting boxes (in addition to any recommended as part of mitigation and compensation measures) should be incorporated within newly constructed buildings (i.e., built-in), or at boundary features. A range of box types should be used to provide opportunities for a number of species. The following designs are recommended (or similar, if they are not available):

- Bats - *small crevice dwelling species, such as pipistrelle* - Schwegler 2F, Eco Kent, Beaumaris Bat Box;
- Bats - *large crevice dwelling species, such as noctule or serotine* - Schwegler 1FF, Wildcare Eco Cavity/Crevice Bat Box;
- Bats - inbuilt bat box, Ibstock Bat Box B, Ibstock Bat Box C, Schwegler 2FE wall-mounted bat shelter, Wildcare Integrated Eco Bat Box;
- Birds - general purpose, small bird species (Schwegler 1B, Schwegler 2M, Woodstone Nest Box - 32mm / 28mm);
- Birds - swifts (S brick, Vivara Pro Woodstone Swift Box, Ibstock Swift Eco, Cambridge Swift Brick, Schwegler 1A, Schwegler 18, Schwegler 16, Schwegler 1MF);
- Birds - house martins and swallows (Woodstone single chamber house sparrow, Esco House Martin Nest Box, Eco Swallow Nest Bowl, Woodstone House Martin Nester, Schwegler No.9B Double House Martin Nest, Schwegler 10 Swallow Nest); and

- Birds - owls and raptors (Eco Barn Owl Nest Box, Schwegler No.23 Owl Box, Schwegler No.5 Tawny Owl Box, Schwegler No.4 small owl).

5.30. If onsite buildings are suitable: a 1:1 nest brick to dwelling ratio is followed, based on guidance from the Swift Conservation Group. https://www.swift-conservation.org/universal_swift_nest_brick02.pdf. Integrated nest bricks should be installed in clusters of 2-3 at the north, east and west gable ends or close under the eaves away from windows and doors, at a height of 4m+, with clear flight access and no protruding ground floor roofs such as garages.

APPENDIX I: SURVEY METHODS

UK Habitat Classification (UKHab) Survey

A field survey was undertaken on 22/11/2024.

All habitats present within the site with the suitability to support rare, protected, or otherwise notable species of flora or fauna (together with direct signs) were noted.

In the context of this report, rare, protected, or otherwise notable species of flora or fauna were those considered to meet any of the following criteria:

- species protected by legislation (see Appendix VII);
- UK Post-2010 UK Biodiversity Framework priority species or Local Biodiversity Action Plan (LBAP) species;
- nationally rare or nationally scarce species; and
- Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red Lists).

The Wildlife and Countryside Act (1981) as amended, makes it an offence to release or allow to escape into the wild any animal, plant or micro-organism not ordinarily resident in the UK (as listed in Schedule 9 of the Act). Plant species listed in Schedule 9 were searched for during the survey. However, many invasive species can be cryptic and therefore this survey does not provide a guarantee that an invasive species is not present and shouldn't be relied on to rule out absence of an invasive species.

An extended Phase 1 Habitat Plan was produced in QGIS, incorporating Target Notes used to highlight features of ecological interest (see Appendix II).

Bats - Ground Level Tree Assessment (GLTA)

The trees were searched for bats/evidence of bats and assessed for their suitability to support roosting bats. Evidence searched for included: roosting bats, bat corpses, bat droppings, feeding remains, and 'clean' entrance/exit points. The features that bat species use to roost were searched for on the trees with reference to the Bat Tree Habitat Key[1]. These are as follows:

- Longitudinal splits
- Crevices
- Rot-hollows
- Transverse cracks
- Loose bark
- Dense ivy lattices

The following equipment was used for the bat survey:

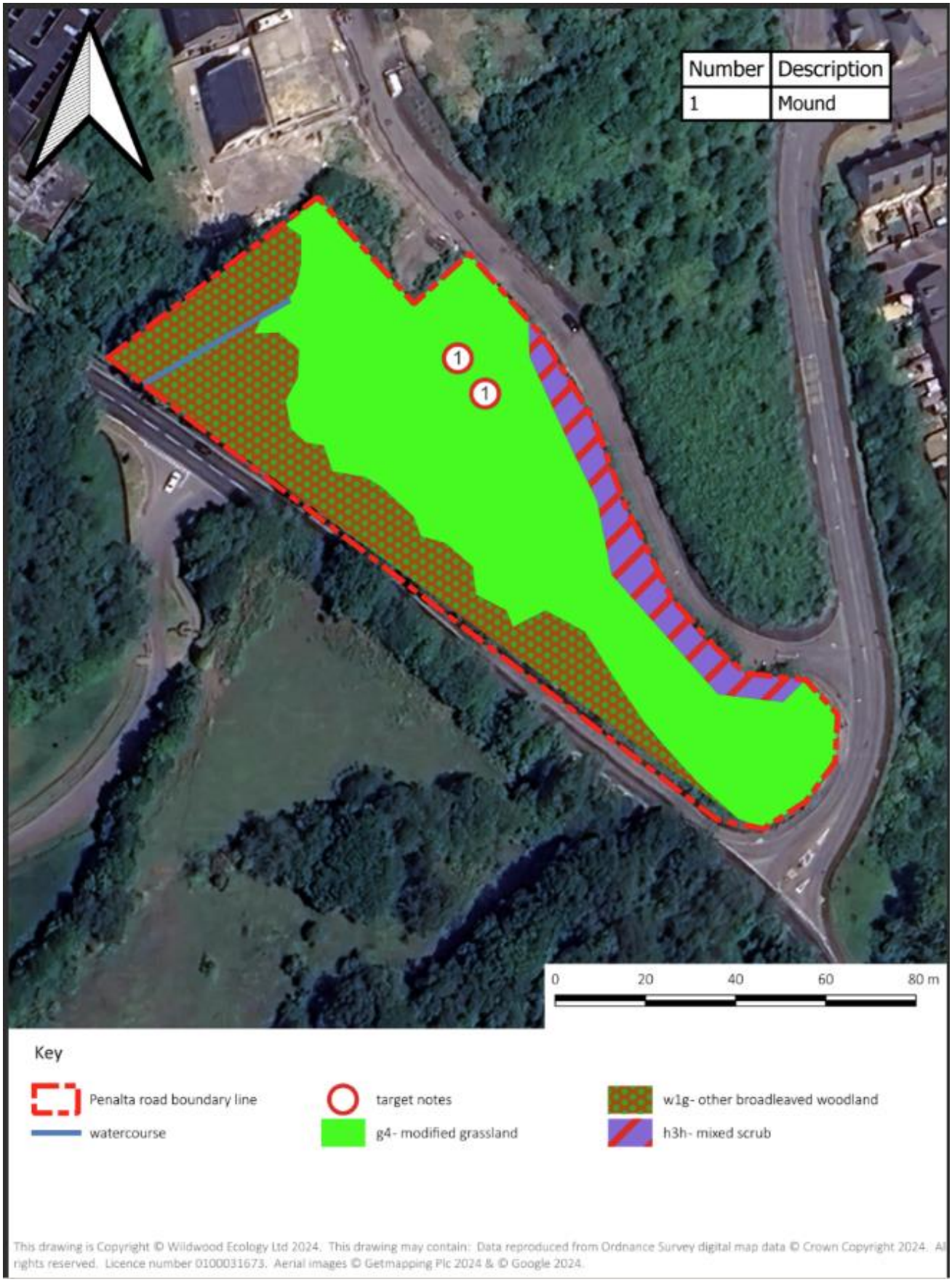
- Smartphone with GPS OS mobile application
- Tree survey plans of the site

- Binoculars to inspect PRFs at higher elevations.
- Powerful torch to illuminate dark features from the ground
- A ladder
- Collection pots and labels for corpses and droppings
- Camera to record evidence and Potential Roost Features (PRFs).

Great crested newt – Habitat Suitability Index (HSI) Assessment

- Ponds within 500m of the site, where access was possible, were assessed for their suitability to sustain great crested newt using the HSI scoring system.
- This method seeks to quantify the suitability of a pond to support great crested newt by numerically assessing ten indices thought to influence their presence.
- The indices considered are: location; pond area; water quality; percentage of shade; presence of water fowl; presence of fish; number of ponds in the wider landscape; suitability of terrestrial habitat; and percentage of macrophyte cover.
- The HSI system is not a substitute for presence/absence surveys and is not intended to predict the occurrence of great crested newt. However, a correlation between the presence of great crested newts and a high HSI score is observed in ponds.

APPENDIX II: HABITAT PLAN



APPENDIX III: PROPOSED DEVELOPMENT PLAN

APPENDIX IV: SURVEY IMAGES

Figure 3 – Scrub on eastern boundary.

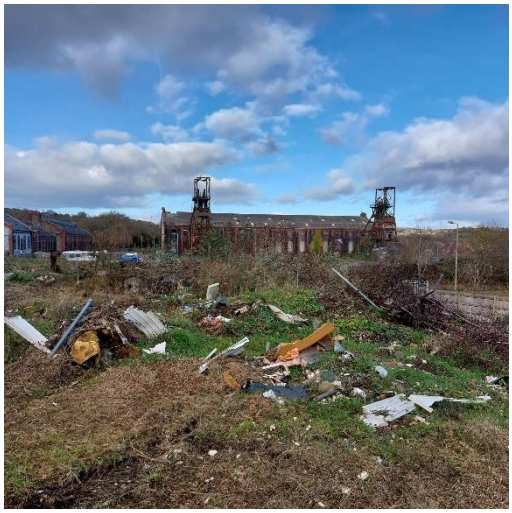


Figure 4 – Refuse on mounds.

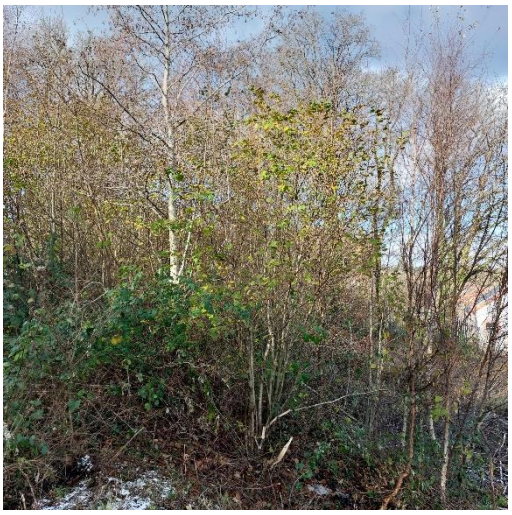


Figure 5 – Young trees on edge of woodland on western aspect of site.

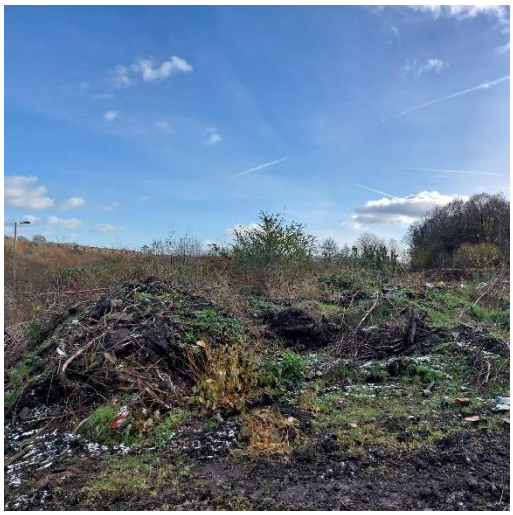


Figure 6 – Scattered mounds on modified grassland.

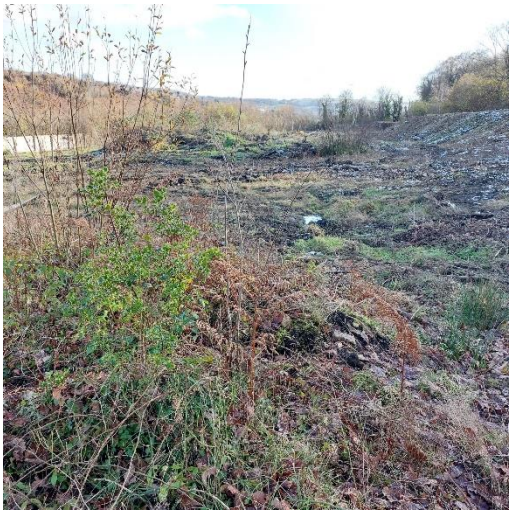


Figure 7 – View of site looking south.

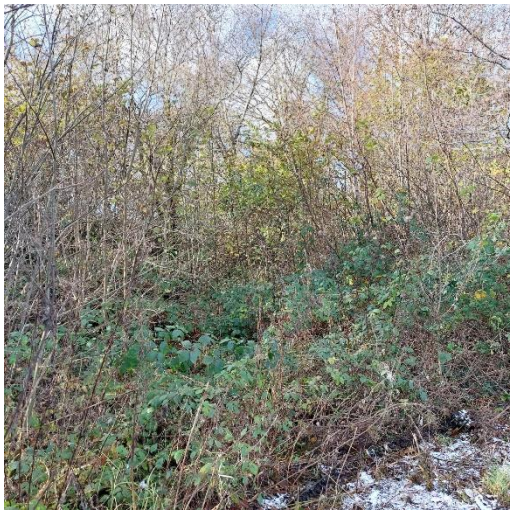


Figure 10 – Woodland on western aspect.

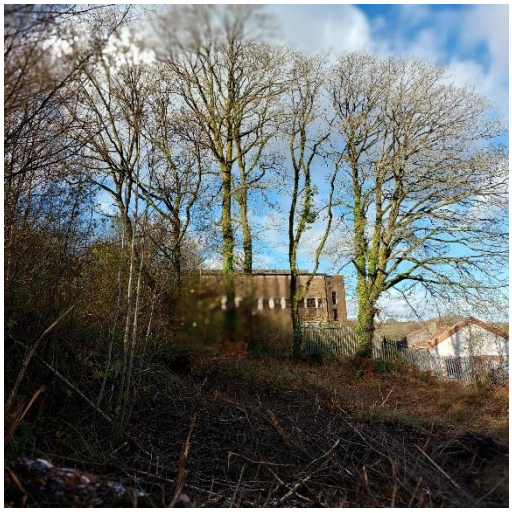


Figure 11 – Mature trees on northern boundary (T8 – T11).

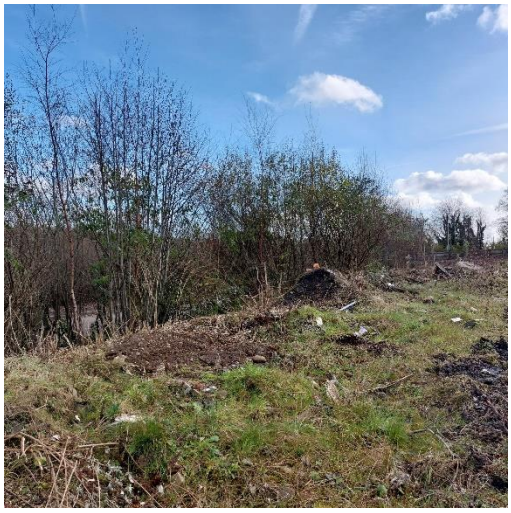


Figure 12 – Tree line on eastern boundary.

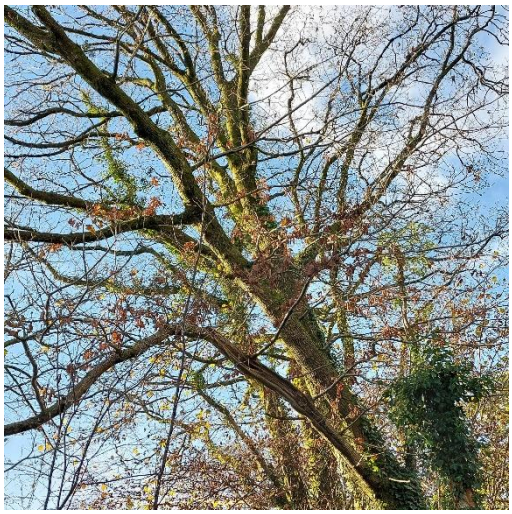


Figure 13 – T7.

Figure 14 – Trees along culvert edge.

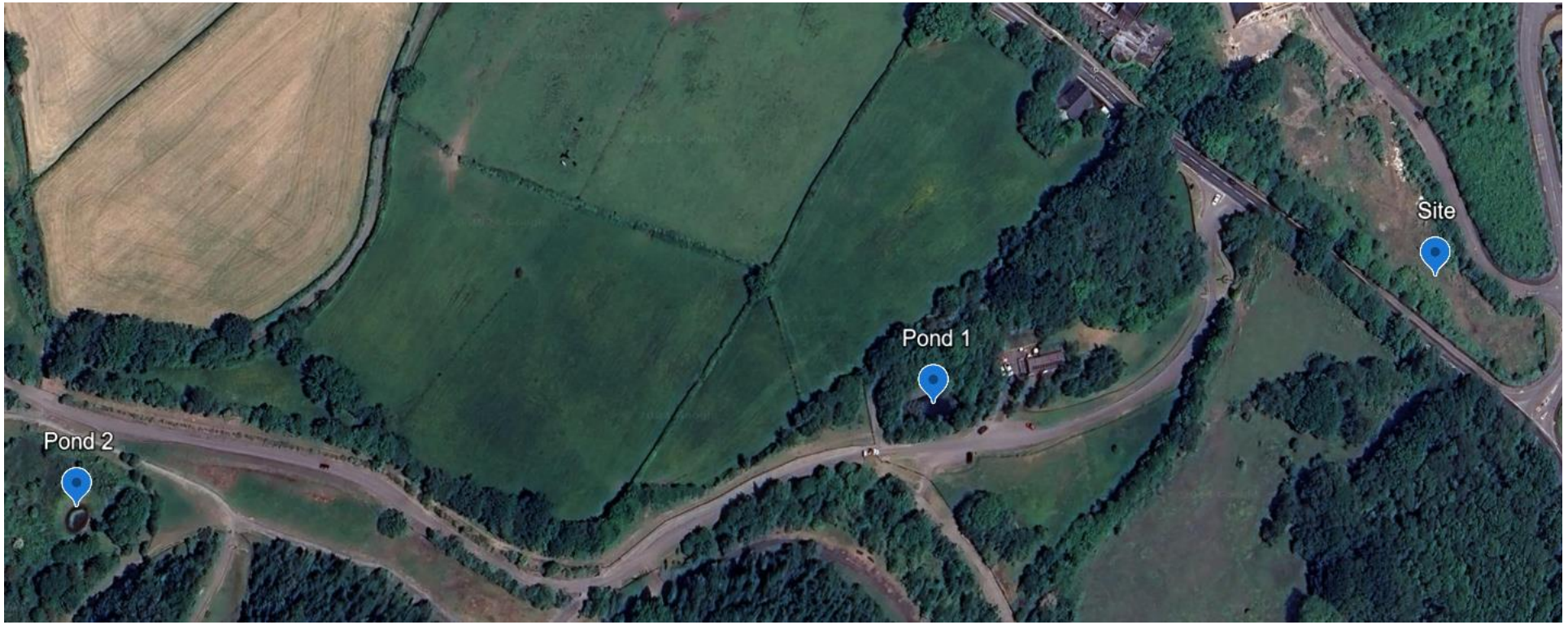
APPENDIX V: SPECIES LIST

The site name: Penallta Road, Hengoed, CF82 7GL **Provided by:** Wildwood Ecology

Grid reference: ST 13975 95636 **Verified by:** Beth Lewis

Common name	Scientific name (if known)	Number	Comment
Alder	*Alnus glutinosa*		
Ash	*Fraxinus excelsior*		
Bent grass	*Agrosti sp.*		
Birch sp.	*Betula sp.*		
Bird's foot-trefoil	*Lotus corniculatus*		
Bitter dock	*Rumex obtusifolius*		
Bramble	*Rubus subg. rubus*		
Buddleja	*Buddleja davidii*		
Elm	*Ulmus sp.*		
Cock's foot	*Dactylis glomerata*		
Cow parsnip	*Heracleum maximum*		
Creeping bent	*Agrostis stolonifera*		
Creeping buttercup	*Ranunculus repens*		
Creeping cinquefoil	*Potentilla reptans*		
Creeping thistle	*Cirsium arvense*		
Dandelion	*Taraxcum officinale*		
Delicate fern moss	*Thuidium delicatulum*		
False broom	*Brachypodium sylvaticum*		
Figwort sp.	*Scrophularia*		
Goat willow	*Salix caprea*		
Ground ivy	*Glechoma hederacea*		
Hazel	*Corylus avellana*		
Hemp agrimony	*Eupatorium cannabinum*		
Holly	*Ilex aquifolium*		
Horsetail sp.	*Equisetum sp.*		
Juniper haircap	*Polytrichum juniperinum*		
Lesser knapweed	*Centaurea nigra*		
Male fern	*Dryopteris filix-mas*		
Oxeye daisy	*Leucanthemum vulgare*		
Pedunculate oak	*Quercus robu*		
Ribwort plantain	*Plantago lanceolata*		
Rush sp.	*Juncus sp.*		
Sessile oak	*Quercus petraea*		
Silver birch	*Betula pendula*		
Speedwell sp.	*Veronica sp.*		
Square-stalked willowherb	*Epilobium tetragonum*		
Sow thistle	*Sonchus oleraceus*		
Willowherb sp.	*Epilobium sp.*		
Willow sp.	*Salix sp.*		

APPENDIX VI: LOCATION OF OFFSITE WATERBODIES



APPENDIX VI: FULL METHODOLOGY

This report has been informed by the following, with detailed methodology provided in Appendix I:

- desk study and records search;
- Preliminary Ecological Appraisal; and
- Preliminary Roost Assessment survey.

This report has been written in cognisance of the CIEEM Guidelines on: Ecological Report Writing, Preliminary Ecological Appraisal, Preliminary Roost Appraisal and Ecological Impact Assessment.

A desk study was undertaken in relation to the site. The sources consulted and the type of information obtained are summarised below.

Source	Information and data sets	Search buffer from the site centre/boundary
South East Wales Biodiversity Records Centre (SEWBReC)	• Protected and priority species. • Non-statutory designations	• (2km) • (1km)
Multi-Agency Geographic Information for the Countryside (MAGIC)	• International statutory designations • National statutory designations	• (10km) • (2km)

The search buffers are sufficient to cover the Zone of Influence (ZoI) of the proposed development in relation to Protected and Priority species and designated sites.

The impact of the proposed development on the biological integrity of nearby designated protected sites has been fully considered.

Assessing ecological importance

The assessment of the importance of sites, habitats and species are made with reference to CIEEMs guidelines for EcIA, where possible. These guidelines provide consistency in the approach to evaluating the importance of the ecological features within a site and the effects or impacts a proposed development will have on them.

Firstly, the sites, habitats and species are assessed using a framework which assigns a level of geographical importance to ecological features. This framework incorporates a wide range of legislation and governmental guidance in assessing each feature's importance.

Next, the effects/likely effects of the proposed development are predicted, considering different stages and activities within the development process. These effects/likely effects are then assessed for their significance, based upon the importance of the site, habitat or species being assessed. The assessment of effects/likely effects significance is

considered before and after the proposed mitigation to give an overall indication of significance.

The importance of specific ecological receptors (sites, habitats or species) is assigned according to their level of importance using the following terms:

- International Importance;
- UK Importance;
- National Importance (i.e. England/Northern Ireland/Scotland/Wales);
- Regional Importance;
- County Importance;
- District Importance (or Unitary Authority, City, or Borough);
- Local or Parish Importance; and
- Of Importance within the site (the zone of influence or a larger defined area).

Contributor information

The PEA was undertaken by Beth Lewis QCIEEM Consultant Ecologist. The report was written by Beth Lewis QCIEEM Consultant Ecologist. The report was reviewed and approved by Dr Mererid Howells CEnv MCIEEM Principal Ecologist.

APPENDIX VII: LIGHTING GUIDANCE

As foraging and commuting bats are confirmed to be present on or close to the site, Guidance Note 08/23 - 'Bats and artificial lighting at night' (The Bat Conservation Trust, BCT, and the Institution of Lighting Professionals, ILP) will be followed.

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component.
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed (as opposed to using a pendant fitting - See Figure 5) where installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges (see Case Study 1).
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards.
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered - See ILP GN01.
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt.
- Where appropriate, external security lighting should be set on motion sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate.
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand.
- Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS.
- The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in

modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.

APPENDIX VIII - BIBLIOGRAPHY

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APPENDIX IX: PLANNING POLICY AND LEGISLATION

The following planning policy and legislation relating to nature conservation and biodiversity status are considered of relevance to the current proposal.

Planning and biodiversity (Wales)

Local Authorities have a requirement to consider biodiversity and geological conservation issues when determining planning applications under the following planning policies.

Planning Policy Wales – Edition 12 (2024) and Technical Advice Note 5 (2009)

Planning Policy Wales (Edition 12, February 2024) sets out the land use planning policies of the Welsh Government, integrating with the Environment (Wales) Act (2016). The advice contained within Planning Policy Wales (PPW) is supplemented for some subjects by Technical Advice Notes (TANs).

Section 6.2 of Planning Policy Wales (Edition 12) describes how elements of Green Infrastructure should be incorporated into new developments. Paragraph 6.2.12 states: "A green infrastructure statement should be submitted with all planning applications. This will be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal. In the case of minor development this will be a short description and should not be an onerous requirement for applicants. The green infrastructure statement will be an effective way of demonstrating positive multi-functional outcomes which are appropriate to the site in question and must be used for demonstrating how the step-wise approach (Paragraph 6.4.15) has been applied."

Section 6.4 of Planning Policy Wales outlines how all developments should achieve net benefit for biodiversity by implementing the DECCA framework. Paragraph 6.4.5 states: "Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species (not including non- native invasive species), locally or nationally and must work alongside nature and it must provide a net benefit for biodiversity and improve, or enable the improvement, of the resilience of ecosystems. A net benefit for biodiversity is the concept that development should leave biodiversity and the resilience of ecosystems in a significantly better state than before, through securing immediate and long-term, measurable and demonstrable benefit, primarily on or immediately adjacent to the site. The step-wise approach outlined below is the means of demonstrating the steps which have been taken towards securing 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 attributes, known as the DECCA Framework:

- diversity between and within ecosystems;
- the extent or scale of ecosystems;
- the condition of ecosystems including their structure and functioning;
- the connections between and within ecosystems; and
- adaptability of ecosystems including their ability to adapt to, resist and recover from a range of pressures likely to be placed on them through climate change for example."

Section 6.4.15 outlines how the step-wise approach should applied to all new developments. This has been summarised below:

Avoid

"The first priority for planning authorities is to avoid damage to biodiversity in its widest sense (i.e. the variety of species and habitats and their abundance) and ecosystem functioning."

Proposals in statutory designated sites are, as a matter of principle, unacceptable and therefore must be excluded from site searches undertaken by developers. This principle also extends to those sites containing protected species and habitats which are irreplaceable and must be safeguarded."

Minimise

"When all locational, siting and design options for avoiding damage to biodiversity have been exhausted, applicants, in discussion with planning authorities, must seek to minimise the initial impact on biodiversity and ecosystems."

Restore/mitigate

"Where, after measures to minimise impact, biodiversity and ecosystems could still be damaged, or lost through residual impacts, the proposed development should mitigate that damage."

"Effective mitigation or restoration measures should be incorporated into the design proposal following the consideration of steps one and two above. Mitigation or restoration measures must be designed to address the specific negative effects by repairing damaged habitats and disturbed species. They should seek to restore in excess of like for like, accounting for disturbance and time lags for the recovery of habitat and species, and in every case, mitigation or restoration measures should seek to build ecosystem resilience within the site and where possible the wider area."

Compensate onsite

"When all the steps above have been exhausted, and where modifications, alternative sites, conditions or obligations are not sufficient to secure biodiversity outcomes further on-site/immediately proximate, as a last resort off-site compensation for unavoidable damage must be provided."

"Off-site compensation should normally take the form of habitat restoration, or habitat creation, or the provision of long-term management agreements to enhance existing habitats and deliver a net benefit for biodiversity."

"The Green Infrastructure Assessment should be used to identify suitable locations for securing off-site compensation."

"Where compensation for specific species is being sought, the focus should be on maintaining or enhancing the population of the species within its natural range."

"Any proposed compensation should be place based, take account of the Section 6 Duty (Biodiversity and Resilience of Ecosystems Duty), the DECCA framework and appropriate ecological advice from the local authority Ecologist, NRW or a suitably qualified ecologist."

Compensate offsite

"Each stage of the step-wise approach must be accompanied by a long term management plan of agreed and appropriate avoidance, minimisation, mitigation/restoration and compensation measures alongside the agreed enhancement measures."

Refuse planning permission
"Finally, where the adverse effect on biodiversity and ecosystem resilience clearly outweighs other material considerations, the development should be refused."

TAN 5 (Welsh Government, 2009) specifically provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The TAN provides advice for local planning authorities on the key principles of positive planning for nature conservation; nature conservation and Local Development Plans; nature conservation in development management procedures; development affecting protected internationally and nationally designated sites and habitats; and development affecting protected and priority habitats and species.
Under Section 2.4 within the TAN 5, 'when deciding planning applications that may affect nature conservation local planning authorities should':

- Pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long term perspective;
- Contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment;
- Promote the conservation and enhancement of statutorily designated areas and undeveloped coast;
- Ensure that appropriate weight is attached to designated sites of international, national and local importance;
- Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;
- Ensure that all material considerations are taken into account and decisions are informed by adequate information about the potential effects of development on nature conservation;
- Ensure that the range and population of protected species is sustained;
- Adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation; where there may be significant harmful effects local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less or no harm have been fully considered.

Future Wales: The National Plan 2040

Policy 9 of Future Wales: The National Plan 2040 (Resilient Ecological Networks and Green Infrastructure) states: "In all cases, action towards securing the maintenance and enhancement of biodiversity (to provide a net benefit) the resilience of ecosystems and

green infrastructure assets must be demonstrated as part of development proposals through innovative, naturebased approaches to site planning and the design of the built environment."

Policy 30 of Future Wales: The National Plan 2040 (Green Belts in the South West) states: "The Welsh Government supports the use of Strategic Development Plans to identify and establish green belts to manage urban form and growth in the South West, particularly around Swansea Bay and Llanelli".

Policy 34 of Future Wales: The National Plan 2040 (Green Belts in the South East) states: "The Welsh Government requires the Strategic Development Plan to identify a green belt to the north of Cardiff, Newport and the eastern part of the region to manage urban form and growth. The Strategic Development Plan must consider the relationship of the green belts with the green belt in the West of England. Local Development Plans and development management decisions should not permit major development in the areas shown for consideration for green belts, except in very exceptional circumstances, until the need for green belts and their boundaries has been established by an adopted Strategic Development Plan."

Wellbeing of Future Generations (Wales) Act 2015

The Wellbeing of Future Generations (Wales) Act 2015 aims to create:

- A globally responsible Wales;
- A prosperous Wales;
- A resilient Wales;
- A healthier Wales;
- A more equal Wales;
- A Wales of cohesive communities; and
- A Wales of vibrant culture and thriving Welsh language.

As part of the National Well-being Indicator Framework, 46 wellbeing indicators have been identified including Healthy Ecosystems (43) and Biological Diversity (44). These indicators have been identified as central to all seven of the goals that the Wellbeing of Future Generations (2015) Wales Act has set out to achieve.

The Future Generations Commissioner for Wales acts as a guardian for the interests of future generations in Wales, supporting 48 public bodies in assuring sustainable development (defined as acting "in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs") in line with each of the seven wellbeing goals. The public bodies listed within the act include Natural Resources Wales, Local Authorities and National Park Authorities. Therefore, planning proposals submitted to the aforementioned parties should be in aligned with the goals listed within the Wellbeing of Future Generations (Wales) Act 2015, and should aim to have a positive impact on the indicators identified with the National Well-being Indicators Framework.

Wildlife & Countryside Act 1981 (as amended)

The Wildlife & Countryside Act 1981 (as amended) [WCA] is the primary legislation for England and Wales for the protection of flora, fauna and the countryside. Part I within the Act deals with the protection of wildlife.

Most European Protected Species offences are now covered under the Conservation of Habitats and Species Regulations (see below), but some 'intentional' acts are still covered under the WCA, such as obstructing access to a bat roost.

The WCA prohibits the release to the wild of non-native animal species listed on Schedule 9 (e.g. signal crayfish and American mink). It also prohibits planting in the wild of plants listed in Schedule 9 (e.g. Japanese Knotweed and *Rhododendron ponticum*) or otherwise deliberately causing them to grow in the wild. This is to prevent the release of invasive non-native species that could threaten our native wildlife.

The provisions relating to animals in the Act only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity.

There are 'defences' provided by the WCA. These are cases where acts that would otherwise be prohibited by the legislation are permitted, such as the incidental result of a lawful operation which could not be reasonable avoided, or actions within the living areas of a dwelling house.

Licensing: certain prohibited actions under the Wildlife and Countryside Act may be undertaken under licence by the proper authority. For example, scientific study that requires capturing or disturbing protected animals can be allowed by obtaining a licence – e.g. bat surveys.

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (which are the principal means by which the EC Habitats Directive is transposed in England and Wales) update the legislation and consolidate all the many amendments which have been made to the Regulations since they were first made in 1994.

These regulations provide for the:

- protection of European Protected Species [EPS] (animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain) including bats, dormice, great crested newts, and otters;
- designation and protection of domestic and European Sites - e.g. Site of Special Scientific Interest [SSSI] and Special Area of Conservation [SAC]; and

adaptation of planning controls for the protection of such sites and species.

Public bodies (including the Local Planning Authority) have a duty to have regard to the requirements of the Habitats Directive in exercising their function – i.e. when determining a planning application.

There is no defence that an act was the incidental and unavoidable result of a lawful activity.

Licensing: it is possible for actions which would otherwise be an offence under the Regulations to be undertaken under licence issued by the proper authority. For example, where a European Protected Species has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

Species protection

The following protected species information is relevant to this report. Legislation is only discussed in relation to planning and development; other offences may exist.

Amphibians

Common frog, common toad, common newt, and palmate newt receive limited protection under the Wildlife and Countryside Act 1981 (as amended), making it illegal to sell or trade them.

Great crested newt and natterjack toad are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) as European Protected Species. It is illegal to:

- deliberately capture, injure, kill, or disturb either species;
- intentionally or recklessly obstruct access to any structure/place used for shelter or protection; or
- damage or destroy a breeding site or resting place.

If proposed development work is likely to kill/injure great crested newt or destroy a known breeding site, then a licence will need to be obtained from Natural Resources Wales, which would be subject to appropriate measures to safeguard amphibians.

Badger

Badger are protected in the UK under the Protection of Badgers Act 1992. Under the act it is an offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat[1] a Badger, or attempt to do so; and
- to intentionally or recklessly interfere with a sett[2] (this includes disturbing badger whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is common over most of Britain; it is not intended to prevent properly authorised development.

Bats

[1] The intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence by constituting "cruel ill treatment" of a Badger

[2] A sett is defined as "any structure or place which displays signs indicating current use by a Badger". Advice issued by Natural England (June 2009) is that a sett is protected as long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger.

All British bats are classed as European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:

deliberately kill, injure or capture a bat;
deliberately disturb bats; and
damage or destroy a breeding site or resting place of a bat.

In addition, all British bats are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

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.

If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural Resources Wales, which would be subject to appropriate measures to safeguard bats.

Birds

In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended). All wild birds, their nests and eggs are protected it an offence to:

kill, injure, or take any wild bird;
take, damage or destroy the nest of any such bird whilst it is in use or being built; or
take or destroying an egg of any such wild bird.

The law covers all species of wild birds including common, pest or opportunistic species.

Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.

Hazel dormouse

The hazel dormouse is classed as a European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:

deliberately capture, injure, or kill a dormouse;
deliberately disturb dormouse; and
damage or destroy a breeding site or resting place of a dormouse.

In addition, dormouse is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- obstruct access to any structure or place which a dormouse uses for shelter or protection; or
- disturb a dormouse while occupying a structure or place which it uses for that shelter or protection.

Otter

Otter is a European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:

- deliberately capture, injure or kill any wild otter;
- deliberately disturb wild otters; and
- damage or destroy a breeding site or resting place of an otter.

In addition, otter is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- disturb an otter while it is occupying a structure or place which it uses for shelter or protection; or
- obstruct access to such a place.

If proposed development work is likely to destroy or disturb otter or their resting places, then a licence will need to be obtained from Natural Resources Wales, which would be subject to appropriate measures to safeguard otter.

Reptiles

Adder, slow worm, grass snake and common lizard are protected against killing and injuring under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it illegal to intentionally kill or injure a common reptile. As a result, reptiles must be removed from areas of development and relocated onto suitable release sites before site works can commence.

Smooth snake and sand lizard are European Protected Species under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). This makes it illegal to carry out the following activities:

- deliberately or recklessly disturb, capture or kill these animals;
- deliberately or recklessly take or destroy eggs of these animals; and
- damage or destroy a breeding site or resting place of such a wild animal; or
- keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from such a wild animal.

Water vole

In addition, water vole is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- disturb a water vole while it is occupying a structure or place which it uses for shelter or protection; or
- obstruct access to such a place.

If proposed development work is likely to destroy or disturb water vole or their resting places, then a licence will need to be obtained from Natural Resources Wales, which would be subject to appropriate measures to safeguard water vole.

