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ECOLOGICAL IMPACT ASSESSMENT REPORT

**RECHABITE HALL, TAFF AND CRESCENT
STREETS, MERTHYR VALE**

**MERTHYR TYDFIL COUNTY BOROUGH
COUNCIL**

Client:	Merthyr Tydfil County Borough Council
Site/Job:	Rechabite Hall, Taff and Crescent Streets, Merthyr Vale
Report title:	Ecological Impact Assessment Report
Report reference:	WWE19105 REV A

Grid Reference:	ST 07533 99603
Survey date(s):	PEA/PRA: 10/07/2019 2019 bat emergence surveys: 16/07/2019, 22/07/2019, and 17/09/2024 2019 static monitoring: 17/07/2019 - 22/07/2019 2022 monitoring survey: 08/06/2022 2024 update surveys: 16/05/2024; 06/06/2024, and 27/06/2024
Surveyed by:	PRA: (see 2019 EcIA, ref: WWE19105 ECIA REV B) 2019 bat emergence surveys(see 2019 EcIA, ref: WWE19105 ECIA REV B) 2022 monitoring surveys: Madeline Anderson and Elen Peel. 2024 update surveys: Jack McCormack, Madeline Anderson, Kate Wickens, Hannah Humphreys, Emma Douglas, Lindsey Harrison.

VERSIONING AND QUALITY ASSURANCE

Status	Date	Author	Reviewed by	Approved by
Final	22/10/2024	Jack McCormack Consultant Ecologist	Dr Amy Williams Schwartz MCIEEM Senior Ecologist Ivi Szaboova MCIEEM Director of Ecology	Dr Amy Williams Schwartz MCIEEM Senior Ecologist

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Merthyr Tydfil County Borough Council
WWE19105 REV A
Crescent Streets, Merthyr Vale

Ecological Impact Assessment Report
Rechabite Hall, Taff and

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 were commissioned by Merthyr Tydfil County Borough Council (the client) to undertake an Ecological Impact Assessment (ECIA) at Rechabite Hall, Taff and Crescent Streets, Merthyr Vale. The site is subject to a planning application to demolish Rechabite Hall (which was designated as a bat house following the demolition of Taff and Crescent Streets) and construct custom-made bat tower.
Work undertaken
This report is for the update bat surveys only and should be read in conjunction with the Wildwood Ecology report (Ref. WWE19105 ECIA REV B). Summary of work undertaken is below. 2019 A Preliminary Ecological Appraisal (PEA) was undertaken, consisting of a desk study and an extended Phase 1 Habitat Survey, carried out in July 2019, following the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal (2017) guidelines. A Preliminary Roost Assessment (PRA) was undertaken at Rechabite Hall during July 2019, consisting of a desk study and field survey following best practice in line with the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn (Collins, 2016). Three dusk emergence/dawn re-entry surveys were undertaken from July to September 2019 following survey guidelines (Collins, 2015). Following the 2019 survey effort, it was agreed with Natural Resources Wales (NRW) as part of bat licence (Ref. licence number: S087946/1) that Rechabite Hall would become a dedicated bat house to compensate for the loss of roosts during the demolition of Taff and Crescent Street. 2022 A single monitoring survey was undertaken in June 2022 as per the above NRW development licence. 2024 From May to June 2024, three bat emergence surveys were undertaken following survey guidelines (Collins, 2023), in order to inform the demolition of Rechabite Hall.
Impacts and Effects
Due to the proposed works, it is likely that in the absence of mitigation there will be adverse effects on the following ecological features: • Afon Taf Site of Importance for Nature Conservation (SINC); • bats (roosting);

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

- bats (foraging and commuting);
- birds (nesting);
- fish; and
- otter.

Recommendations Compensation and Enhancements

Designated sites in the vicinity of the site require further consideration as follows:

- a Construction Environmental Management Plan (CEMP) will be required in order to avoid impacts on the Afon Taf SINC and its designated features (including bats, fish, and otter) during demolition and construction.

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

Bats

- In order to avoid triggering legislation that protects bats and bat roosts, a bat licence will be required prior to works. The licence can be applied for from NRW after full planning is achieved. The licence must be in place prior to the commencement of the work.
- The compensation bat tower will be completed prior to the start of the Rechabite Hall demolition. The bat tower will be built as per the design specified in the licence and will include roosting features suitable for all bat species and roosts confirmed by the onsite surveys in 2020, 2022, and 2024. The broad design principles are stated in Section 5 of this report (see Appendix III for details).
- Prior to commencement of works, a toolbox talk will be provided by a bat licensed ecologist to all contractors onsite, advising them that the building is a confirmed bat roost, advise about the licence work methods, and what to do if a bat is found during works.
- Additionally, a pre-works check will be required prior to demolition works along with exclusion measures to prevent bats from entering the building during the works.
- Roof stripping works will be conducted under supervision of the named ecologist or an accredited agent.

Birds (nesting)

- If buildings or habitats suitable for nesting birds are to be removed, then works will take place outside of the bird nesting season. If clearance work has to be undertaken 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; carried out by a suitably qualified person.

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

- To ensure legislation that protects active nests is not triggered, active nests will be protected by a suitable buffer, as directed by the ecologist, until the young have fledged, as confirmed by the ecologist.
- Bird boxes will be included in the tower design to compensate the loss of nesting sites.

Fish and otter

- A Precautionary Working Method Statement will be required in order to avoid impacts on fish and otter during the works.

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

- The loss of the bat roosts within Rechabite Hall will be compensated via the construction of the onsite bat tower. The roosts will be monitored by ecologists as per the licence conditions, likely to be Year 2 and year 4 after the tower is completed. This will be an internal inspection of the tower followed by a dusk emergence survey between May – August (inclusive). A daytime internal inspection of the hibernacula will be required in Year 2 and Year 4, between November and March (inclusive).

Conclusions

Providing that the recommendations outlined in this report are implemented in full, 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 survey¹ - i.e. until 16/11/2025. 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 were commissioned by Merthyr Tydfil County Borough Council (the client) to undertake an Ecological Impact Assessment (EclA) at Rechabite Hall, Taff and Crescent Streets, Merthyr Vale, centred at grid reference: ST 07533 99603.
- 1.2 Buildings on Taff and Crescent Street, including Rechabite Hall, were surveyed in 2019, and roosts of the following species were confirmed:
- soprano pipistrelle – 10 roost locations confirmed, including a small maternity roost and three day roosts within Rechabite Hall;
 - common pipistrelle – seven roost locations confirmed, including two day roosts within Rechabite Hall; and
 - Daubenton's bat – two roosts confirmed within Rechabite Hall, including a small maternity roost and a day roost.
- 1.3 Rechabite Hall was chosen as a suitable building to provide compensation for the lost roosts from the other buildings on the streets. Following the demolition of Taff and Crescent Streets, the Rechabite Hall building has fallen into disrepair due to vandalism and a new permanent bat roost option was therefore required. Although this report focuses on the Rechabite Hall only, the aim of the report and the proposal is to compensate all historic bat roosts confirmed at Taff and Crescent Street.
- 1.4 This report has been written in cognisance of the CIEEM Guidelines on: Ecological Report Writing and Ecological Impact Assessment, with full survey methodology provided in the appendices.

Site description

- 1.5 The aerial image of the site (Figure 1) showed the site to consist of a single four-storey building. The Afon Taf ran within 10m of the building's western aspect, which, along with woodland and scrub along its banks, provided connectivity to the wider landscape. Within 20m of the eastern aspect of the building there was another woodland block. To the south there was an area of scrub, tall ruderal and grassland – this area had naturally revegetated since the demolition of Taff and Crescent Streets.



Figure 1 - Aerial image of the site. Red line shows the site boundary. Image used under licence (@2024 Google). Figure created: 17/09/2024.

Proposed development

1.6 The site is subject to a planning application to demolish Rechabite Hall (which was initially designated as a bat house following the demolition of Taff and Crescent Streets) and construct a custom bat tower.

Data collected

1.7 Data from the following sources was used to inform this report:

- Desk study undertaken during July 2019 including:
 - South East Wales Biodiversity Records Centre (SEWBRc); and
 - Multi-Agency Geographic Information for the Countryside (MAGIC).
- Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) survey undertaken on 10/07/2019.
- Further surveys including:
 - bat emergence and pre-dawn re-entry surveys (2019);
 - static monitoring surveys (2019);
 - monitoring survey, as per the license requirements (2022); and
 - update bat surveys (2024).

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

1.9 Please note that this report should be read in conjunction with the 2019 EcIA report (report reference: WWE19105 ECIA REV B), which includes the methodology and results of the desk study, PEA, PRA, static monitoring surveys and 2019 bat emergence and pre-dawn re-entry surveys.

Purpose of this report

1.10 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.

1.11 Key objectives are to identify:

- the likely ecological constraints associated with the proposed development;
- mitigation measures likely to be required, following the 'Mitigation Hierarchy'; and
- opportunities for the proposed development to deliver ecological enhancement.

Limitations and assumptions

1.12 The following limitations relevant to this assessment were noted:

- The initial PEA, PRA, and desk study were undertaken in 2019.

1.13 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 had excellent connectivity to the surrounding landscape via the Afon Taf and its vegetated banks; the river ran within 10m of the western aspect of the building, and a block of woodland was within 20m of the eastern aspect of the building.
- 2.2 The wider landscape was comprised of residential housing, woodland blocks, and agricultural land. Areas of suitable bat habitat were well connected to the site via the Afon Taf riparian corridor.

Desk study

- 2.3 Note that the full desk study results can be seen in 2019 EclA report.

Designated sites

- 2.4 There was one statutory international designated site within 10km - Aberbargoed Grasslands (SAC). This was approximately 8km east of site and will not be impacted by the proposed development.
- 2.5 There were no statutory national designated within 2km of the site.
- 2.6 There were five non-statutory sites (Sites of Interest to Nature Conservation (SINC)) within 1km of the site. The closest was the Afon Taf SINC, which was adjacent to the western site boundary.

Light pollution

- 2.7 The site was in a sub-urban area with moderate levels of light pollution (VIIRS Data Base, 2023).

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 a type/ scale of development a Habitat Regulations Assessment is considered unlikely to be required.

Core sustenance zones/consultation areas

- 2.9 No records of maternity roosts were returned within the data search. Furthermore, no sites designated for bats were identified during the desk study.

Priority and protected species

- 2.10 Priority and protected species records were returned from the South East Wales Biodiversity Records Centre (SEWBRc) for species located within 2km of the site. Key species records can be found in the 2019 EclA report, with the full data set available upon request.

- 2.11 A PEA survey was undertaken at the site on 10/07/2019. Survey details can be found in the 2019 EclA report.

Bats

PRA

- 2.12 A PRA survey was undertaken at the site on 10/07/2019. The full results of the PRA can be found in the 2019 EclA report.

Bat emergence/re-entry surveys

- 2.13 The results of the 2019 emergence and re-entry surveys can be seen in the 2019 EclA report.

- 2.14 A summary of survey timings (2022 licence monitoring and 2024 dusk emergence) can be found in Table 1.

Table 1 - Emergence survey timings and weather conditions.

Date	Type	Survey Timing			Conditions			
		Start	End	Sunset / Sunrise	Temp [°C]	Cloud Cover [Oktas]	Wind Speed [Beaufort]	Rain
08/06/2022	Dusk emergence	21:13	22:58	21:28	14	7	2	Nil
16/05/2024	Dusk emergence	20:46	22:31	21:01	17	2	1	Nil
06/06/2024	Dusk emergence	21:13	22:58	21:28	14	2	1	Nil
27/06/2024	Dusk emergence	21:21	23:06	21:36	17	7	2	Nil

- 2.15 The results of the bat emergence surveys are summarised in Table 2.

Table 2 - Emergence survey results.

Survey type and date	Roosts / points of particular interest	General observations	Equipment Used	Surveyors (licence number)
Dusk emergence survey (monitoring) – 08/06/2022	No roosts observed	Foraging and commuting activity was high – common pipistrelle, soprano pipistrelle, Myotis sp., noctule.	Elekon BatloggerM and M2	Madeline Anderson, Elen Peel
Dusk emergence survey – 16/05/2024	No roosts observed	Foraging and commuting activity was moderate between the western aspect and the river – common pipistrelle, soprano pipistrelle, noctule. Jackdaws seen entering and leaving the building, potentially nesting.	Elekon BatloggerM and M2, Echometer Touch. Nightfox Whisker IR camera.	Jack McCormack, Lucy Boulton, Emma Douglas, Lindsay Harrison
Dusk emergence survey – 06/06/2024	One common pipistrelle seen landing on the weatherboard and entering the building on the southern gable end of the building.	Foraging and commuting activity was high - common pipistrelle, soprano pipistrelle, Myotis sp., noctule.	Elekon BatloggerM and M2, Echometer Touch.	Jack McCormack, Hannah Humphreys, Emma

		Owl observed landing on the building and predating on bats.	Nightfox Whisker IR camera.	Douglas, Kate Wickens
Dusk emergence survey – 27/06/2024	Two common pipistrelle seen emerging from under tiles on the eastern side of the roof.	High levels of commuting and foraging – common pipistrelle, soprano pipistrelle, noctule.	Elekon BatloggerM and M2, Echometer Touch. Nightfox Whisker IR camera.	Jack McCormack, Madeline Anderson, Kate Wickens and Emma Douglas

2.16 Bat flight-lines identified during the emergence surveys can be seen in the appendices.

2.17 Bat roosts identified during the emergence surveys in 2024 are summarised in Table 3 and are shown on Figure 2.

Table 3 - Details of bat roosts identified.

Date	Species	Roost type (number)	Structure reference	Roost location	Access points	Dimensions or description
06/06/2024	Common pipistrelle	Night roost (one entry)	Rechabite Hall	Southern gable end.	Above weatherboard.	Bat landed on weatherboard, climbed above weather board and entered building.
27/06/2024	Common pipistrelle	Day roost (two emergences)	Rechabite Hall	Eastern half of pitched roof.	Under tile.	Two bats emerged from under a tile next to a dormer on the eastern half of the building.



Figure 2 - Known bat roost locations in 2024.

3 IMPACTS AND EFFECTS

3.1 The following discussion and assessment are 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 a four-storey building currently designated as a bat house to allow the creation of a purpose-built bat tower.

3.3 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:

- Afon Taf (SINC);
- bats (roosting);
- bats (foraging and commuting);
- birds (nesting);
- fish; and
- otter.

3.4 A summary of impacts and effects can be found in Table 4.

Table 4 - Summary of potential impacts.

Ecological feature	Potential impacts and effects	Cause of impact	When will impacts occur?
Afon Taf (SINC)	Degradation of the river and impacts to designated features (including bat, fish, and otter populations).	Dust pollution, soil run-off, chemical pollution from machinery onsite (such as oil and fuels). Incursion into the riparian habitat by inappropriate material storage/ plant access. Noise, vibration and lighting pollution during demolition and construction.	Demolition and construction phase
Foraging and commuting bats	Lighting of notable commuting routes and foraging habitat.	Additional lighting spill during demolition and construction.	Demolition and construction phase
Roosting bats	The loss of the following roosts within Rechabite Hall: - common pipistrelle night roost (x1 bat); and - common pipistrelle day roost (x2 bats). Unmitigated, the demolition of the building will lead to killing/ injury/ disturbance of bats and permanent loss of roosts, triggering legislation.	Demolition of the building.	Demolition phase
Birds likely nesting onsite	Potential destruction of active nests, triggering legislation.	Demolition of the building.	Demolition phase
Fish	Pollution of the Afon Taf, potentially killing individuals /disrupting the lifecycle of the breeding population. Disturbance of fish populations via noise, vibration, and additional lighting.	Dust pollution, soil run-off, chemical pollution from machinery onsite (such as oil and fuels). Noise, vibration and lighting pollution during demolition and construction.	Construction and demolition phase.
Otter	Pollution of the Afon Taf, potentially killing individuals using the river.	Dust pollution, soil run-off, chemical pollution from machinery onsite (such as oil and fuels).	Construction and demolition phase.

	Injury/death of individuals that may enter the site whilst works are unsupervised. If holts: are present during works within the 30m buffer zone from the site: killing/ injury/ disturbance of otter as a result of the works, noise, vibration and additional lighting, triggering legislation.	Noise, vibration and lighting pollution during demolition and construction.	
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4 RECOMMENDATIONS, COMPENSATION AND ENHANCEMENTS

4.1 There are a number of impacts and effects on ecological features which cannot be eliminated as a result of proposed mitigation measures.

4.2 Due to these resulting impacts and effects, the following recommendations and/or compensation measures are suggested:

Recommendations / compensation measures

Designated sites

4.3 The proposed works lie within 10m of the Afon Taf (SINC). Therefore, a Constructional Environmental Management Plan (CEMP) will be required in order to avoid degradation of the river and its designated features.

Bats

4.4 Rechabite Hall was identified to be used by roosting common pipistrelle (maximum count two bats). Therefore, a European Protected Species Licence (EPSL) for bats will be required from Natural Resources Wales for the proposed works to legally proceed. The EPSL will require a detailed mitigation and compensation strategy to be devised in the form of a method statement. This will aim to ensure the maintenance of the roosts and that local bat populations are maintained at a favourable conservation status.

4.5 Full details of the bat mitigation measures will be subject to agreement by Natural Resources Wales during the licence process. However, general details of proposed mitigation are as follows:

- To replace Rechabite Hall, which was designated as a bat house as part of a previous license application (license number: S087946/1), a custom-built bat tower will be constructed. The bat tower will include a warm bat loft, with both crevice access (through bat tiles) and fly in access (via a lead-lined chute), a cool tower, and a hibernaculum. The full specifications of the bat tower can be seen in Appendix III.
- Prior to commencement of works, a toolbox talk will be provided by a bat licensed ecologist to all contractors on site, advising them that the building is a confirmed bat roost, advising about permitted work methods/ timing of work, and what to do if a bat is found during works.
- Additionally, a pre-works check will be required prior to demolition works along with exclusion measures to prevent bats from entering the building during this time, as per the licence method statement. This will include endoscopying all crevices prior to demolition and blocking empty crevices with hessian cloth. Crevices that can't be endoscoped fully will be blocked up by hessian post-emergence, providing the three preceding nights had temperatures over 8°C and there had been no rain or high winds to ensure bats are not in torpor.
- Roof stripping works will be conducted under supervision of named ecologist or an accredited agent.

- If bats are found during demolition, they will be relocated by the licensed ecologist/ accredited agent by a gloved hand to the newly constructed bat tower.
- In order to mitigate for the disturbance to commuting and foraging bats, all works must be undertaken during daytime hours and no temporary lighting is to be installed. Daytime hours in this context are taken to mean works commencing at least 30 minutes after sunrise and works stopping at least 30 minutes prior to sunset.

4.6 The completed development will be monitored according to the requirements of the EPSL, to ensure that all mitigation is successful, or to inform modifications where appropriate, and to inform best practice. The roosts will be monitored by ecologists, likely in Year 2 and year 4 after the tower is completed (to be confirmed by the licence conditions). The monitoring will be an internal inspection of the tower followed by a dusk emergence survey between May – August (inclusive). A daytime internal inspection of the hibernacula will be required in Year 2 and Year 4, between November and March (inclusive).

4.7 The method statement and the licence work schedule will detail the appropriate timing for works to the buildings. As maternity and hibernation roosts are not present, there are no timing constraints for the works. The bat tower must be ready for use prior to the demolition.

4.8 Only BS747 Type 1F traditional hessian bitumen roofing felt or wooden sarking will be used to line the roofs of the bat tower. Non-bitumen membranes will not be used as they are detrimental to the welfare of bats and cause bat death by entanglement in the fibres. Additionally, when non-bitumen membranes are used in bat roosts, they are known to lose their functionality over time and allow water/ bat urine to enter the roof void.

Birds

4.9 Demolition works and any associated vegetation clearance will take place outside of the bird nesting season. If work has to be undertaken 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; carried out by a suitably qualified person. Active nests will be protected by a suitable buffer, as directed by the ecologist, until the young have fledged, as confirmed by the ecologist.

4.10 Bird boxes will be included in the tower design to compensate the loss of nesting sites.

Fish

4.11 As fish species are known to be present within the adjacent Afon Taf, a CEMP will be required and approved by the council prior to the works commencing. The CEMP will outline precautionary measures to prevent soil run off and chemical pollution, incursion into the retained habitat by inappropriate material storage/ plant movement, and avoidance of potential impacts relating to noise, vibration, and lighting spill.

4.12 Although no evidence of otter was identified onsite, it is considered likely that otter are using the Afon Taf adjacent to site.

4.13 A Precautionary Working Methods Statement (PWMS) will be required in order to avoid killing/injuring/disturbing otter during the works. Precautionary working methods will include:

- pre-works walkover by an ecologist to check that there are no new halts within 30m of the works area to avoid impacts on holts/ otter;
- open excavations/ trenches will be covered overnight during the works (or adding a plank as a means of escape). All pipes will also be capped;
- storing any onsite chemicals/ fuel within a locked shed/building overnight to avoid any spillage into the nearby waterbody; and
- avoiding work at night in order to minimise disturbance to otter.

4.14 The CEMP will also outline mitigation measures to avoid soil run off and chemical pollution, and potential impacts relating to noise, vibration and additional lighting spill.

Enhancements

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

4.16 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 or ornamental plants with known wildlife value (all grown in the UK) will be used for new planting on the site.

4.17 In order to achieve Net Benefit for Biodiversity (NBB), a Green Infrastructure Statement may be required.

4.18 Bee bricks to be installed on south facing side of tower.

4.19 The following bird box enhancements are recommended:

- Two integrated swift boxes will be installed on north side of tower at 5000mm above ground level.
- Four bird nesting boxes will be fitted to suitable trees adjacent to the development.
- A range of box types will be used to provide opportunities for a number of species. The following designs are recommended (or similar, if they are not available):
 - birds - general purpose, small bird species (Schwegler 1B, Schwegler 2M, Woodstone Nest Box - 32mm / 28mm);
 - birds - sparrows (Woodstone Sparrow Nest Box, Wildcare House Sparrow Nest box); and
 - birds – jackdaw (Schwegler No.29 Jackdaw Nest Box).

5 CONCLUSION

5.1 In the absence of mitigation measures, the proposed development would have the potential to result in significant negative impacts on designated sites and protected species, triggering legislation. With the implementation of mitigation and precautionary measures proposed in this report, the development is not anticipated to result in any significant impacts on important ecological features.

6 APPENDIX I: SURVEY METHODS

Extended Phase 1 Habitat Survey

A field survey was undertaken on 10/07/2019.

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,
- Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red Lists); and
- 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 upon 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).

PRA

The buildings within the site were subject to a PRA. This is an external and internal building inspection survey, the purpose of which is to search for bats/evidence of bats and assess the likelihood of bats being present and the need for further survey and/or mitigation.

A systematic search was made of the building and the ground, especially below suitable access points where present. Such features include window sills, windowpanes, walls, tiles, weather boarding, lead flashing, eaves, behind surfacing materials and under tiles, and other cracks and crevices that provide protection from the elements. Such features are known to be used by roosting bats.

The building inspection included searching for the following evidence of roosting bats:

- roosting bats within crevices or free-hanging;
- bat corpses e.g. on the floor, in uncovered water (header) tanks or other containers in roof voids;

- bat droppings beneath roosting features;
- feeding remains e.g. moth/butterfly Lepidoptera spp. wings and beetle Coleoptera spp. wing casings;
- scratch marks and characteristic staining from urine and/or fur oil beneath roosting features e.g. on roofing timbers and walls within roof voids;
- 'clean' gaps associated with bat roosts;
- bat-fly Nycteribiid spp. pupal cases;
- droppings, corpses, feeding remains and/or bat-fly pupal cases beneath roof insulation, which indicates use by bats before the insulation was installed; and
- clean swept floors, which may indicate evidence has been removed.

The internal building inspection included searching for the following evidence of roosting bats:

- roosting bats within crevices or free-hanging, bat corpses including in uncovered water tanks or other containers in roof voids;
- bat droppings, scratch marks or staining beneath roosting features, and 'clean' gaps associated with bat roosts;
- feeding remains e.g. moth/butterfly Lepidoptera spp. wings and beetle Coleoptera spp. wing casings;
- bat-fly Nycteribiid spp. pupal cases;
- evidence beneath roof insulation, which indicates use by bats before the insulation was installed;
- clean swept floors, which may indicate evidence has been removed;
- gaps within the structure of the building, for example: light ingress in the roof indicating access points to the outside; between the roof lining and roof covering; within the structure of walls and suitable access points to cavity or rubble-filled walls; around the structure of chimneys or within disused chimneys; and around lintels;
- suitable locations for free-hanging bats and/or night/feeding perches e.g. timber beams; and
- cool areas suitable for torpor or hibernation e.g. cellars.

The following equipment was used for the bat survey:

- elevation and baseline drawings of the building or structure;
- binoculars;
- powerful torch to illuminate dark corners from the ground;
- a ladder;
- collection pots and labels for corpses and droppings; and
- camera to record evidence and suitable roosting sites.

Dusk emergence surveys were undertaken.

Dusk emergence surveys commenced approximately 15 minutes before local sunset and continued for approximately 1.5 hours after sunset. Surveyors were positioned to ensure complete coverage of the building and/or the known/Potential Roost Features.

Surveyors were equipped with broadband bat detectors (Elekon BatScanner Stereo). Elekon Batloggers were also deployed to record bat activity across the site.

All bat activity was recorded including (where appropriate) roost access points, species, time of re-entry, direction of flight, behaviour (foraging or commuting) and use of landscape features.

Minimal lighting was used during the surveys as this can alter the behaviour of the bats emerging from or entering a roost, or foraging or commuting within an area.

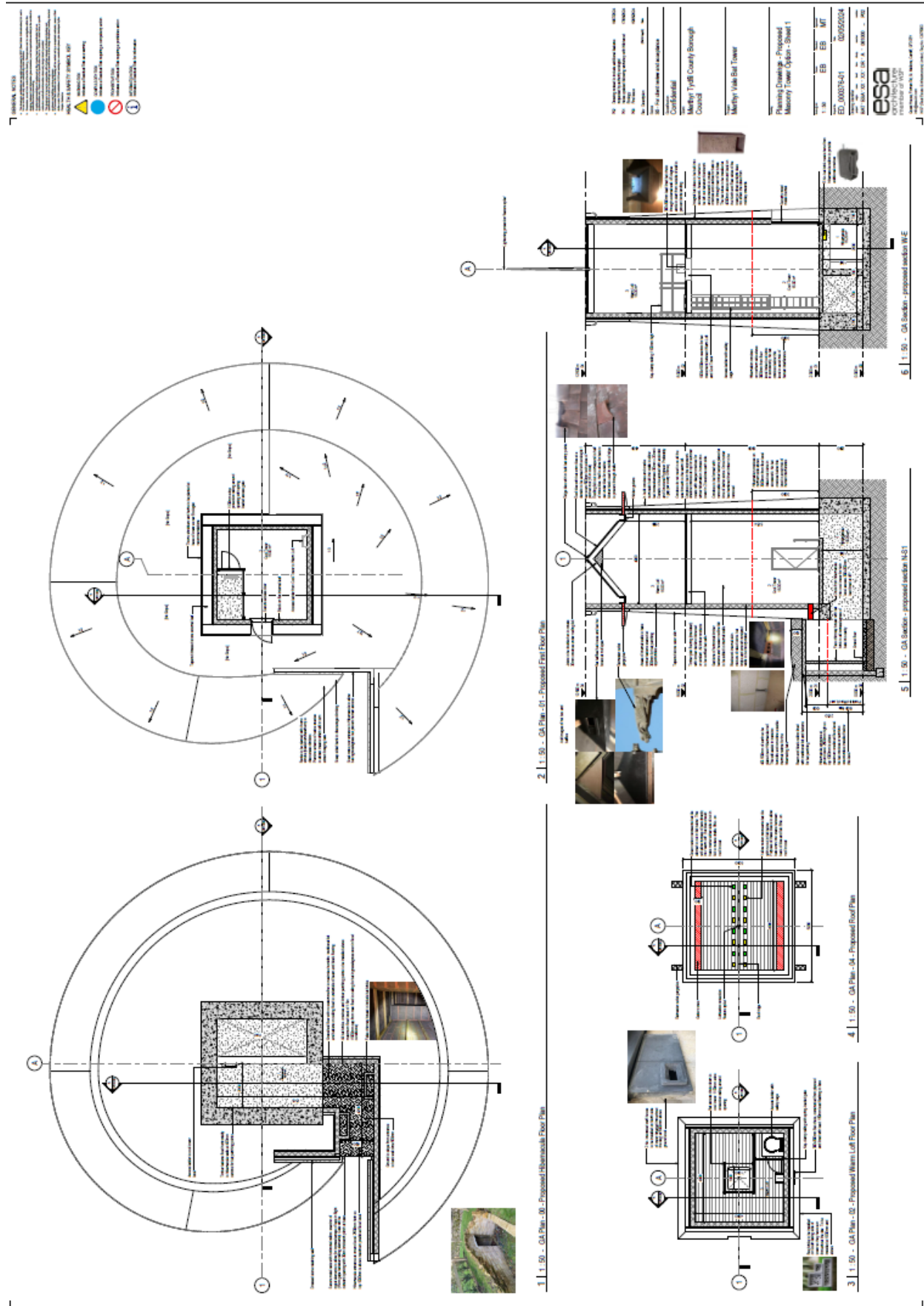
Nightfox whiskers (1080P (30fp), 850nm, 3W, 57°) and infrared cameras (1080P (30fps) i.e. 1080 pixels and 30 frames per second) alongside infrared torches (Nightfox XB5) were used on different elevations throughout the surveys. Cameras were either positioned next to a surveyor, who view the building through the camera once visibility was low, or near a surveyor to get a wider angle.

Footage from cameras placed away from a surveyor was later reviewed by an ecologist to check for unrecorded emergences, and to cross reference records of emergence from surveyors.

APPENDIX II: BAT FLIGHT PLAN



APPENDIX III: PROPOSED DEVELOPMENT PLAN



APPENDIX IV: SURVEY IMAGES



Figure 2 - Northern gable of block of flats. Partially open window (arrow) indicated entry point for single pipistrelle during 2019 emergence surveys.



Figure 3 - Block of flats, rear aspect with soprano maternity roost identified in 2019 emergence surveys circled.



Figure 4 - Location of 4 x Daubenton's roost within northern flats during 2019 emergence surveys.



Figure 5 - Location of common pipistrelle night roost identified during 2024 emergence surveys.



Figure 6 – Common pipistrelle emerging from day roost identified during 2024 emergence surveys.

APPENDIX V: SPECIES LIST

The site name: Rechabite Hall, Taff and Crescent Streets, Merthyr Vale

Grid reference: ST 07533 99603

Verified by: Jack McCormack

Provided by: Wildwood Ecology

Common name	Scientific name (if known)
Common pipistrelle	<i>Pipistrellus pipistrellus</i>
Myotis sp.	<i>Myotis</i> sp.
Noctule	<i>Nyctalus noctula</i>
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>

APPENDIX VI: FULL METHODOLOGY

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

- Full desk study and records search;
- Preliminary Ecological Appraisal;
- Preliminary Roost Assessment survey; and
- Bat emergence surveys.

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 (SEWBRc)	• 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

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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 report was written by Jack McCormack (Consultant Ecologist). The report was reviewed and approved by Dr Amy Williams Schwartz MCIEEM (Senior Ecologist), and reviewed by Ivi Szaboova MCCIEM (Director of Ecology).

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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 be 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 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)

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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 reasonably 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.

Bats

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 England/ 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.

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.