



Land at Pontyclun Primary
School

Ecological Impact Assessment

Prepared by
CSA Environmental

on behalf of
Welsh Education Partnership
Company

Report No: CSA/4388/03a

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This report may contain sensitive ecological information. It is the responsibility of the Local Authority to determine if this should be made publicly available.

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EXECUTIVE SUMMARY

Planning permission is being sought for the redevelopment and expansion of Pontyclun Primary School.

CSA Environmental was instructed by the Welsh Education Partnership Company (WEPCo.) to undertake an Ecological Impact Assessment (EclA) of the Site. To inform this assessment, a desktop study followed by a suite of targeted habitat and species surveys were undertaken, including for bats and great crested newts.

The Site comprises several single storey school buildings and a small public library, with associated parking, sports courts and play areas. There are additional small areas of grassland, scrub, ornamental planting, scattered trees and a small pond.

Habitats currently present within the Site are dominated by buildings and hardstanding of low ecological value. Other habitats are likely to offer a range of opportunities for wildlife, with the mature trees and small pond considered to be of greatest ecological importance. Roosting bats and nesting birds have been confirmed on-site and there is potential for other notable species such as hedgehog, reptiles and common toad.

Precautionary working measures are described herein to avoid impacts to key habitats and protected species. It is proposed these measures are included within a Construction and Environment Management Plan (CEMP) which could be secured via planning condition. Additionally, demolition of building B5 would need to be covered by a derogation licence from Natural Resources Wales, and subject to strict mitigation requirements detailed within the licence.

The development proposals will require loss of the pond as well as impacts to low-quality grassland and shrubs. However the landscape strategy seeks to provide a larger area of open greenspace than currently present, to include additional tree planting and improved grassland management. Prescriptions for ongoing management of new and retained habitats can be detailed within a Landscape and Ecology Management Plan (LEMP). As a result, it has been demonstrated through a BREEAM 'change in ecological value' assessment that the scheme can deliver net gains for biodiversity. Opportunities for ecological enhancement are included herein.

Based on successful implementation of the proposed avoidance, mitigation and enhancement, the proposed school expansion is not anticipated to result in any significant residual negative effects on important ecological features.

1.0 INTRODUCTION

- 1.1 This report has been prepared by CSA Environmental on behalf of the Welsh Education Partnership Company (WEPCo.). It sets out the findings of an Ecological Impact Assessment (EclA) of Pontyclun Primary School, Pontylcun, Rhondda Cynon Taf (hereafter referred to as 'the Site') where redevelopment of the school site is proposed.
- 1.2 The scope of this assessment has been determined with consideration of best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018) and the Biodiversity: Code of practice for planning and development published by the British Standards Institute (BS 42020:2013).
- 1.3 The Site occupies a total area of c. 1.2ha and is located around central grid reference ST 0350 8115, located centrally in the village of Pontyclun, Rhondda Cynon Taf. The Site comprises several single storey school buildings and a small public library, with associated parking, sports courts and play areas. Discrete areas of grassland, scrub, ornamental planting, scattered trees and a small pond are present in southern and eastern areas of the site (see Habitats Plan in Appendix A). It is bounded by residential housing and a community allotment.
- 1.4 An initial desk study and extended Phase 1 Habitat survey were undertaken for the Site in August 2019 as part of a Preliminary Ecological Appraisal and updated in 2021, the findings of which are presented herein. In addition, the following further survey work has been undertaken by CSA Environmental:
- Preliminary Roost Assessment (April 2021)
 - Great crested newt survey (April 2021)
- 1.5 As the Preliminary Roost Assessment identified bat droppings within one of the buildings on-site and roosting potential within some of the other buildings, further roost surveys were recommended. These have been completed by TACP during June and July 2021 and the results are presented within a separate report (TACP, 2378, P1, August 2021), with reference made herein where applicable.
- 1.6 This EclA aims to:
- Establish baseline ecological conditions at the Site.
 - Determine the importance of ecological features which could be affected by the proposed scheme.
 - Identify any likely significant impacts or effects of the proposed development on important ecological features, in the absence of mitigation, including cumulative impacts.
 - Set out any measures necessary to effectively avoid or mitigate likely significant effects, and identify residual impacts.

- Identify any compensation measures required to offset residual impacts.
- Set out potential ecological enhancement measures that may be secured by the proposed scheme, and quantify the overall net change in biodiversity using a BREEAM assessment.
- Confirm how proposed mitigation, compensation and enhancement measures could be secured.
- Provide sufficient information to determine whether the project accords with relevant nature conservation policies and legislation, and where appropriate, to allow conditions or obligations to be imposed by the relevant authority.

1.7 An EclA can be used for the appraisal of projects of any scale. This is a best practice evaluation process, recommended by CIEEM (2018). It is intended that the evaluation of findings presented here-in will aid the Rhondda Cynon Taf County Borough Council in their review of the planning application.

2.0 LEGISLATION, PLANNING POLICY & STANDING ADVICE

Legislation

- 2.1 Legislation relating to wildlife and biodiversity of particular relevance to this EclA includes:
- The Conservation of Habitats and Species Regulations 2017 (as amended)
 - The Wildlife and Countryside Act 1981 (as amended)
 - The Natural Environment and Rural Communities (NERC) Act 2006
 - The Protection of Badgers Act 1992
 - Environment (Wales) Act 2016
- 2.2 This above legislation has been addressed, as appropriate, in the production of this report. Further information on the above legislation is provided in Appendix B.

Planning Policy Wales

- 2.3 The Planning Policy Wales 11 (Welsh Government, 2021) sets out the government planning policies for Wales and how they should be applied. Chapter 6: Distinctive and Natural Places, is of particular relevance to this report as it relates to ecology and biodiversity. Further details are provided in Appendix B.
- 2.4 Technical Advice Note 5: Nature Conservation and Planning (Welsh Assembly Government, 2009), which is referred to by the PPW, provides further guidance in respect of statutory obligations for protecting and enhancing biodiversity and geological conservation and their effects within the planning system.
- 2.5 The Environment (Wales) Act 2016 sets out the required for the 'sustainable management of natural resources' together with new ways of working to achieve this. Section 6 under Part 1 of the Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (the S6 duty) for public authorities in the exercise of functions in relation to Wales. The S6 duty requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and promote the resilience of ecosystems.

Local Planning Policy

- 2.6 A number of local planning policies relate to ecology, biodiversity and/or nature conservation. These are summarised in Table 1 of Appendix B. These policies have been addressed, as appropriate, in the production of this report. Further supplementary planning guidance on Nature Conservation is also provided by Rhondda Cynon Taf. These

policies have been addressed, as appropriate, in the production of this report.

Standing Advice

- 2.7 Natural Resources Wales Standing Advice (Natural Resources Wales, 2015) regarding bats and planning, aims to support local authorities and forms a material consideration in determining applications. Standing Advice has therefore been given due consideration, alongside other detailed guidance documents, in the production of this report.

3.0 METHODS

Desk Study

- 3.1 The Multi-Agency Geographic Information for the Countryside (MAGIC) online database was reviewed in August 2019 and updated in June 2021 to identify the following ecological features (based on the Site's likely 'zone of influence' in respect of such features):
 - Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar sites within 10km of the Site (including possible/proposed sites)
 - Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR) within 3km of the Site
 - Other relevant data e.g. Ancient Woodland Inventory within 1km of the Site
- 3.2 Local Nature Reserves for Wales within 3km of the Site are taken from the Lle Geo-Portal for Wales.
- 3.3 A review was undertaken of the location of any such designations, their distance from and connectivity with the Site, and the reasons for their designation. This information was used to determine whether they may be within the Site's zone of influence.
- 3.4 The South East Wales Biodiversity Records Centre (SEWBReC) was contacted for details of any non-statutory nature conservation designations and records of protected/notable habitats and species. This information was requested for an area encompassing the Site and adjacent land within c. 2km of its central grid reference. This search area was selected to include the likely zone of influence upon non-statutory designations and protected or notable habitats and species.
- 3.5 The Lle Geo-Portal for Wales (NRW) and Woodland Trust's online Ancient Tree Inventory was reviewed for known ancient or veteran trees within the Site and adjacent land. Interactive online mapping provided by the charity 'Buglife' was used to determine whether the Site falls within an Important Invertebrate Area.
- 3.6 In accordance with Natural England's Great Crested Newt Mitigation Guidelines (2001), a desktop search was undertaken to identify ponds within 500m of the Site which may have potential to support breeding great crested newts *Triturus cristatus*, using Ordnance Survey (OS) mapping, the MAGIC database and aerial photography. Whilst it is recognised this is Natural England guidance, no equivalent is available in Wales and is taken to be the most relevant guidance available.
- 3.7 Where possible under the terms of the data provider, relevant desk study data are presented in Appendix C.

Field Surveys

Extended Phase 1 Habitat Survey

3.8 An extended Phase 1 habitat survey was carried out in out in warm and dry weather conditions on 02 August 2019 by Cerian Thomas ACIEEM and Dr Helen Gath, encompassing the Site and immediately adjacent habitats that could be viewed. An updated Phase 1 habitat survey was subsequently undertaken by Cerian Thomas on 06 April 2021 to determine any changes to the baseline habitats prior to completing this assessment.

3.9 Phase 1 Habitat survey is a method of classification and mapping wildlife habitats in Great Britain. It was originally intended to provide "*...relatively rapidly, a record of the semi-natural vegetation and wildlife habitat over large areas of countryside.*" The Phase 1 Habitat Survey method has been widely 'extended' beyond its original purpose to allow the capture of information at an intermediate level between Phase 1 and Phase 2 Habitat surveys. Here, the standard survey method has been 'extended' in this report to include the following:

- More detailed floral species lists for each identified habitat
- Descriptions of habitat structure, the evidence of management and a broad assessment of habitat condition
- Mapping of additional habitat types (e.g. hardstanding)
- Identification of Habitats of Principal Importance in respect of Section 7 of the Environment (Wales) Act 2016
- Identification of Habitats Directive Annex I habitat types
- Evidence of, or potential for, European Protected Species (EPS) (including bats, great crested newt, dormouse and otter)
- Evidence of, or potential for, other protected species (including birds, reptiles, water vole, badger and certain invertebrates)
- Evidence of, or potential for, other notable species (including Section 7 Priority Species of the Environment (Wales) Act 2016, as well as notable, rare, protected or controlled plants and invertebrates)

3.10 Results of the extended Phase 1 Habitat survey are presented on the Habitats Plan in Appendix A. Appendix D provides a list of floral species recorded in each habitat.

Further Survey Work

3.11 The following detailed field survey work was carried out in April and May 2021, with full methods and results provided in the relevant Appendices:

- Preliminary Roost Assessment - Structures (Appendix F)
- Great Crested Newt eDNA analysis (Appendix G)

Limitations

- 3.12 There were no specific limitations to the desktop study or extended Phase 1 habitat survey, which was conducted at an optimum time of year and in good conditions. The SEWBreC have confirmed that the deskstudy results remain valid for use until 01 August 2022.

Evaluation and Assessment

- 3.13 Ecological features are identified, evaluated and assessed in accordance with the CIEEM Guidelines for Ecological Impact Assessment (2018), with detailed methods provided in Appendix E.
- 3.14 It is an established principle (CIEEM, 2018) that EclA is an iterative process. Specialist advice on the avoidance and mitigation of the potential negative effects of the proposed development has been input from an early design stage.

4.0 BASELINE ECOLOGICAL CONDITIONS

Nature Conservation Designations

Statutory

- 4.1 There are no statutory designations covering any part of the Site.
- 4.2 One international statutory designation was identified within 10km of the Study Area; Cardiff Beech Woods (c. 7.4km north-east of the Site), which is described in Table 1 below.
- 4.3 Cardiff Beech Woods contains one of the largest concentrations of *Asperulo-Fagetum* beech forests in Wales, and represents the western limit of its past native range. It is also important for supporting populations of lesser and greater horseshoe bats (*Rhinolophus ferrumequinum* and *Rhinolophus hipposideros*) and European bullhead *Cottus gobio*. In consideration of the special interest features of the Cardiff Beech Woods SAC and its vulnerabilities, threats are primarily associated with invasive species and inter-specific relations within the site, as well as the threat from recreational pressure. Given the nature of the proposals to expand existing educational facilities, there are considered to be no likely impact pathways between the Site and the SAC, and it is scoped out of further assessment.
- 4.4 Two national statutory designations were identified within 3km of the Site, namely: Ely Valley SSSI (c. 1.5km south-east of the Site) and Llantrisant Common and Pastures SSSI (c. 2.8km north of the Site).
- 4.5 Ely Valley SSSI is designated as the best location in Wales for Monk's-hood *Aconitum anglicum*, along several miles of the River Ely bankside. Likewise, Llantrisant Common and Pastures SSSI is designated for its grassland habitat and rare flora. As above, with reference to the nature of the development proposals and the distance of these SSSIs from Pontyclun School, there is not considered be any mechanism for potential impacts on the SSSIs.
- 4.6 These statutory designations are described in Table 1 below. Due to the geographical context in which these sites have been designated, Cardiff Beech Woods SAC is valued to be of importance at the International level whilst the two SSSIs are of National level importance.

Non-Statutory

- 4.7 One local non-statutory designation was identified within 2km of the Site, designated as a Site of Importance for Nature Conservation (SINC); Fforest Fach Farm SINC. This non-statutory designation is described in Table 1 below. Given options are being sought for expansion of an existing school site, there is not considered to be any potential recreational or disturbance impacts on the SINC.

- 4.8 As SINCs are designated according to criteria applied in a county context, these sites are considered to be ecologically important at the County level.

Table 1. Statutory and non-statutory designations within search radii

Site Name & Designation	Distance & Direction from Survey Area	Special Interests or Qualifying Features
International Designations within 10km		
Cardiff Beech Woods (SAC)	c. 7.8 km east	Cardiff Beech Woods contains one of the largest concentrations of <i>Asperulo-Fagetum</i> beech forests in Wales. The area also includes other woodland types, notable plant species and important populations of rare horseshoe bats
National Designations within 3km		
Ely Valley (SSSI)	c. 1.5km south-east	Ely Valley is noted for its strong population of Monk's-hood <i>Aconitum anglicum</i> , a rare plant which stretches several miles along the river banks. Also, an important stronghold for otters <i>Lutra lutra</i>
Llantrisant Common and Pastures (SSSI)	c. 2.8km north	Mixed habitats support a diverse plant community including one nationally rare plant (liverwort <i>Scapania paludicola</i>) and one nationally scarce plant species (Cornish moneywort <i>Sibthorpia europaea</i>). Includes acidic marshy grassland, heath and flushes.
Non-statutory Designations within 2km		
Fforest Fach Farm (SINC)	c. 1.3km south	Two meadows supporting a mosaic of lowland fen, sedge swamp, reedbeds and purple moor grass and rush pasture habitats

Habitats and Flora

Ancient Woodland

- 4.9 Information from the Lle Geo-Portal for Wales did not identify any designated Ancient Woodland on any part of the Site. However, pockets of restored ancient and ancient semi-natural woodland were identified in all directions surrounding the Site. The closest records were three areas of restored ancient woodland, as close as c. 0.15 km south-east (privately owned wood), and three areas of ancient semi-natural woodland c. 0.36km east and 0.73km north-east.
- 4.10 At these distances, no direct or indirect impacts are expected upon these Ancient Woodlands as a result of the proposed development.

Notable Flora Records

- 4.11 The SEWBReC provided records of 59 notable plant species from within the search area. Those of potential relevance to the habitats within the Site are restricted to bluebell *Hyacinthoides non-scripta*, although

suitable habitat for this species is limited. Daffodil *Narcissus pseudonarcissus* and hairy St John's-wort *Hypericum hirsutum* are Locally Important Species and have potential to occur on-site or in the adjacent allotments. These were not recorded at the time of survey.

- 4.12 Given the management of the Site and habitat types present, botanical species diversity was generally limited on-site and no notable species were identified.
- 4.13 Due to the nature of the Site there are a range of non-native plant species present. These include the invasive montbretia (*Crocasmia x crocosmiiflora*) which is listed under Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended). This legislation makes it an offence to plant or otherwise allow montbretia to grow in the wild. Several plants were noted growing along the southern boundary fence in August 2019 and it is unclear whether they originated on the neighbouring allotments and spread into the Site or vice versa.

Habitats

- 4.14 The following habitats were recorded on-site and classified in line with current Phase 1 Habitat species guidance (JNCC, 1990), as illustrated in Appendix A. Detailed species lists for each habitat are provided in Appendix D.

Buildings and Hardstanding

- 4.15 Buildings and hardstanding are the dominant habitat at the Site. Buildings were predominantly single storey school blocks, ranging from a 1920s traditional school building to modern style temporary cabin structure.
- 4.16 Building B1 is a single storey, white painted, brick building, with numerous uPVC windows on all aspects, located adjacent to the school's entrance on the north-east boundary. The metal, panelled pitched roof is tightly fitted, with metal surrounds. A small redbrick extension is present at the north eastern corner, with a stepped flat roof, plastic soffits and guttering and an access door.
- 4.17 Building B2 is a small, temporary porta-cabin style building, with fine gravel finish exterior, spray coated barge board features, plastic gutter surrounds and uPVC windows.
- 4.18 Building B3 is a large single storey school building, with a varied exterior design, and refurbishment works ongoing at the time of survey in August 2019. The exterior of the building is a mix of large uPVC window panels and wooden and plastic cladding, with wide plastic fascia panels. The roof of B3 is predominantly flat, a combination of felt and corrugated iron with a square, raised section in the centre, though difficult to view. The refurbishment works revealed a wood and metal framed structure,

with an internal false ceiling which created an enclosed roof space below a corrugated metal roof.

- 4.19 At the centre of the school grounds, Building B4 is a large modern brick building, with rendering and wooden panelling on the upper levels at gable ends. The roof has a shallow pitch, bitumen felt-covered structure, with a clay tiled hipped section on the northern aspect, and a small pitched open-sided porch extension with brick supporting pillars. Wooden panelling created a small enclosed space with downward facing lighting over the entrance. Eaves were tightly sealed with plastic soffits and plastic guttering. A ramped entrance lead up to the southern elevation of the building with large glass windows, with the main entrance on the northern elevation.
- 4.20 Building B5 is the oldest building on site, built in 1923. It is a large red brick building with cream painted rendering, with three adjoining wings on the north-east elevation. The roof structure is more complex, generally a slate tiled pitched roof with five gables, plus clay ridge tiles and lead flashing along roof gullies and chimneys. Gable ends were finished with a small, circular, wooden slatted window.
- 4.21 Building B6 is a long green metal cabin-style building in the north of the school, with a green corrugated metal roof, metal guttering and small uPVC windows.
- 4.22 The public library (Building B7) is located on the western edge of the school grounds and comprises a single storey brick building with a tightly fitted flat felt roof and a large glass window covering almost half of the building's eastern elevation.
- 4.23 Building B8 lies on the north-west boundary of the Site and functions as a bike shelter and storage room. It is a small redbrick and breezeblock feature, with a hipped, slate tiled roof and red clay ridge tiles, painted metal guttering and wooden barge boards. Painted pillars support an open sided shelter area on the south-east aspect, with a wooden door to a small enclosed room (no windows) which was not accessible at the time of survey.
- 4.24 Hardstanding surrounds the buildings as walkways, play areas and car parking.
- 4.25 Buildings and hardstanding have negligible ecological value and these habitat types are scoped out of further consideration with this assessment.

Semi-improved and Amenity Grassland

- 4.26 Although generally dominated by hardstanding, some small areas of amenity grassland are present in the eastern half of the school grounds. These are limited to relatively narrow corridors, managed as short mown

amenity grassland used for school play. An area of semi-improved grassland is present to the rear of building B2, which appeared to be less frequently managed and has slightly greater plant diversity.

4.27 Few grasses were noted, dominated by perennial rye grass *Lolium perenne*, cock's foot *Dactylis glomerata*, red fescue *Festuca rubra*, annual meadow-grass *Poa annua*, and false oat grass *Arrhenatherum elatius*. A number of common herb species were noted within the amenity areas, including daisy *Bellis perennis*, ribwort plantain *Plantago lanceolata*, dandelion *Taraxacum officinale* agg., groundsel *Senecio vulgaris* and creeping buttercup *Ranunculus repens*. Additional common mouse-ear *Cerastium fontanum*, common fleabane *Pulicaria dysenterica*, shepherd's purse *Capsella bursa-pastoris* and smooth sow-thistle *Sonchus oleraceus* were recorded in the semi-improved grassland. During the April 2021 update survey, bluebell *Hyacinthoides non-scripta*, primrose *Primula vulgaris*, daffodil *Narcissus* sp. and field wood rush *Luzula campestris* were also noted. A more detailed species list is included in Appendix D.

4.28 Whilst likely to offer opportunities for a range of wildlife, the grassland is limited in extent and not recorded to be of particular floristic value. As such, grassland habitats at the Site are considered to be of importance at less than the Local level.

Trees

4.29 Mature trees are limited within the Site, confined mostly to the enclosed garden in the north, where a stand of mature cherry *Prunus* sp., sycamore *Acer pseudoplatanus*, silver birch *Betula pendula* and managed willow *Salix* sp. were recorded. A row of mature leylandii *Cupressus × leylandii* is present adjacent to east of the garden and a tall pine *Pinus* sp. and holly *Ilex* sp. is present to the north.

4.30 A small number of other semi-mature trees are scattered along the eastern and southern boundaries of the Site, comprising cherry, horse chestnut *Aesculus hippocastanum*, silver birch, ash *Fraxinus excelsior*, sycamore and Norway spruce *Picea abies*. A mature tree was present between B3 and B4 but this had been taken down to stump level.

4.31 The on-site trees are likely to offer general opportunities for a range of wildlife, such as invertebrates and birds. However, they are limited in extent and relatively isolated within the built-up surroundings. The trees are thus not considered to be of ecological level at greater than Local level and are not taken forward within this assessment, however measures to protect retained and adjoining trees during construction works are recommended and detailed within an Arboricultural Impact Assessment.

Scrub and Tall Ruderal

- 4.32 Small patches of scrub and tall ruderal are scattered along the boundary fence adjacent to the off-site allotments. There is some encroachment of hedge bindweed *Calystegia sepium* and colonising ruderal species from neglected areas of the allotment. Hedge bindweed was dominant, but additional species included bramble *Rubus fruticosus*, broad-leaved willowherb *Epilobium montanum*, smooth sow-thistle and dandelion.
- 4.33 An enclosed area of scrub was identified on the southern side of the library (B7). Access to this area was not possible, but species noted include bramble, blackthorn *Prunus spinosa*, buddleia *Buddleja davidii* and cherry laurel *Prunus laurocerasus*.
- 4.34 The presence of scattered scrub and tall ruderals provides additional diversity and a resource for wildlife. As described for other habitats above however, the on-site scrub and ruderals are not considered to be of sufficient ecological value to be taken forward for further assessment.

Ornamental Planting

- 4.35 A small garden area in the north-east of the school grounds was enclosed by waist-high, metal railing with gated access. The garden included a low growing ornamental plant bed (predominantly *Hebe* sp.) surrounding a statue, amongst a stand of mature trees.
- 4.36 Ornamental plants were found scattered through the semi-improved grassland area to the east, including pendulous sedge *Carex pendula*, bamboo (*Poaceae*), pampas grass *Cortaderia selloana*, cherry laurel *Prunus laurocerasus* and montbretia (Schedule 9 of the Wildlife and Countryside Act). Planting beds were present elsewhere, or makeshift planters within old tyres, but these were generally empty at the time of the survey.
- 4.37 Ornamental planting is scoped out of further assessment within this report, except for monbretia in relation to legislation controlling its spread in the wild.

Pond

- 4.38 A small, lined pond approximately 3m x 1.5m, was situated within an area of semi-improved grassland land to the east of building B2. The pond was covered with a rigid plastic mesh, and supported a very shallow amount of water, with water-lily *Nymphaea* sp. and extensive horsetail *Equisetum* sp. growth recorded in August 2019. During the update visits in April 2021, marsh marigold *Caltha palustris* and horsetail dominated, with pondweed *Potamogeton* sp.
- 4.39 The pond is small and of relatively poor quality, though it contributes to the overall diversity on-site and likely supports a range of wildlife.

Furthermore, ponds are a Priority Habitat identified under Section 7 of the Environment (Wales) Act, 2016 as well as within the Local Nature Recovery Plan for Rhondda Cynon Taf. As a result, the on-site pond is considered to be of value at up to Local level.

Other Features

- 4.40 Along the south-east boundary, there are several small fenced-off plots interspersed with gravel and paving, seemingly used for gardening, wood chipped play areas, a disused green-house, compost bin, and insect hotels made from wooden pallets. One section included raised beds marked by sleepers (empty at time of survey).
- 4.41 Other small structures were present comprising a wooden gazebo, a high wooden walled play space, a wooden shelter, electrical units and metal containers.
- 4.42 Boundaries and play areas were generally marked by post and mesh wire fencing, low metal railing fencing or wooden picket fencing. No hedgerows were recorded within the site, with minor encroachment along the southern boundary from adjacent gardens.

Fauna

Bats

- 4.43 A total of 123 bat records were identified within the search area, dating from 1977 to 2018, comprising the following species: common pipistrelle *Pipistrellus pipistrellus*, noctule *Nyctalus noctula*, brown long-eared *Plecotus auritus*, serotine *Eptesicus serotinus*, lesser horseshoe and whiskered bats *Myotis mystacinus*, as well as some unidentified species. At least 42 of the records are of roost sites, including records of maternity roosts for common pipistrelle, lesser horseshoe and whiskered bat. The closest records to the Site are of an unidentified bat in flight c. 310m to the west and common pipistrelle bat c. 350m to the west. The closest records of the rarer lesser horseshoe bat are located over 2km south-east and north-west of the Site.
- 4.44 Given the dominance of hardstanding within the Site, foraging and dispersal habitat is generally limited to the mature trees in the north-east of the Site, and vegetation along the boundary with the allotments.
- 4.45 A range of buildings are present within the Site, and whilst the majority of buildings externally appeared to have no or very limited potential, particularly the cabin style structures, the remaining buildings contained some features of interest. As such, a Preliminary Roost Assessment (PRAs) of the buildings was undertaken in April 2021. This included external and internal (where possible) inspections to look for evidence of bats and assess the potential of each building to support roosting. Full results are provided in Appendix F.

- 4.46 In summary, evidence of a bat roost was confirmed within building B5 as multiple droppings were found within the internal loft space. The remaining buildings were found to have between negligible to moderate bat roosting potential as described in Appendix F.
- 4.47 Bat activity survey work undertaken by TACP in June and July 2021 confirmed the presence of a common pipistrelle night roost within B5, with a single bat seen to emerge on one occasion from a gable end vent. No bats were observed utilising any of the other buildings on-site during the course of the surveys though common pipistrelle, soprano pipistrelle and noctule bat were observed making wider use of the Site. Full methods and results are provided within a separate survey report prepared by TACP (TACP, 2378, P1, August 2021).
- 4.48 No bat roosting potential was noted in relation to trees at the Site.
- 4.49 The three bat species recorded on-site are common and widespread species within Wales and Great Britain. There is no suggestion of notable populations making use of the Site and on-site habitats offer limited opportunities for bats. However, due to population declines and other pressures, bats are Priority Species identified under the Environment (Wales) Act, 2016 as well as within the Local Nature Recovery Plan for Rhondda Cynon Taf. Bats at the Site are valued to be of importance at the Local level and bat roosts also need to be considered further due to their legal protection.

Badger

- 4.50 The SEWBReC have provided 12 records of badger *Meles meles* from within the 2km search area, the most recent being 2007, with the closest record located c. 1km from the Site.
- 4.51 No evidence of badgers was seen on-site, such as setts, latrines, hairs or snuffle pits. Habitat for badgers is restricted to small areas of amenity grassland, with limited cover or sett building opportunities. The school is surrounded by residential housing and roads, with corridors for badger movement restricted to the allotments to the south-east. However, the school grounds are enclosed around the entire perimeter by a post and wire mesh fencing and metal gates, which appear to be in good condition, with no obvious access for badgers. As a result badgers are considered to be absent from the Site and are discounted from further assessment.

Dormouse

- 4.52 A total of 15 records of dormouse *Muscardinus avellanarius* were identified within the search area, dating from 1998 to 2016. The closest record is within 1km of the Site, with most records occurring at a small woodland c. 750m north-west of the Site, with occasional records to the south.

4.53 The suburban environment within the immediate vicinity of the Site offers unsuitable habitat to support dormouse, with the closest suitable habitat over 100m away. Given the lack of any green corridors, such as hedgerow or woodland habitat within or adjacent to Site, dormice are considered to be absent.

Water Vole

4.54 No records of water vole *Arvicola amphibius* were identified within the search area. Due to the absence of any suitable habitat within or connected to the Site, water vole are considered to be absent.

Otter

4.55 A total of 11 records of otter *Lutra lutra* were identified within the search area, dating from 1991 to 2014, and were limited to field signs recorded along the River Ely, which flows around the eastern edge of Pontyclun.

4.56 Otters can occupy a wide home range encompassing major watercourses, their associated tributaries and marginal habitats. Findings from the desktop study provide evidence of otters present within the River Ely which flows c. 100m to the east of the school, and is known to support a good population of otters. However, residential housing, roads and open allotments create a barrier between the river and the Site. Habitats within the Site do not provide suitable terrestrial habitat for otter if present in locally and they are scoped out of further assessment herein.

Other Mammals

Brown Hare

4.57 Four records of brown hare *Lepus europaeus* were identified within the search area, but these were only recorded in 1972 and 1974. Considering the immediate landscape on and around the Site, and the habitat preferences for hare, this species is scoped out of further consideration.

Hedgehog

4.58 Twenty-six records of hedgehog *Erinaceus europaeus* were identified within the search area, dating from 2004 to 2018. These records originated from several sources, including the People's Trust for Endangered Species (PTES) and the SEWBRReC's own recording group, SEWBRReCORD. Records were widely distributed across the search area, often from residential gardens within the village of Pontyclun; one of which originated from a home-owners garden bordering the Site's boundary (2014), with a further three records within 300m to the west, north and south of the Site.

4.59 Habitat at the Site provides sub-optimal opportunities for hedgehogs, with limited peripheral vegetation and a dominance of hardstanding

and buildings. However, given their confirmed presence in nearby gardens, the adjacent allotments to the south-east and residences are likely to support hedgehogs, and may occasionally disperse onto Site. Boundary fences along the Site's perimeter were constructed from wire mesh fencing and well maintained with limited access for hedgehog. Hedgehog are scoped out of further assessment in this report. However, they are local and national priority species for conservation and provision for hedgehog within the proposed development is included in Section 5.0.

Birds

- 4.60 The SEWBReC provided 54 species of priority and protected bird species from within the 2 km study area, dating from 1902 to 2019. A further 16 Locally Important Species and 30 species of Conservation Concern were provided. These records included several species listed as Red and Amber status on the Birds of Conservation Concern Red List (Eaton et al. 2015). Those of potential relevance to the site include: house martin *Delichon urbicum*, swift *Apus apus*, song thrush *Turdus philomelos*, starling *Sturnus vulgaris*, house sparrow *Passer domesticus*, and Lesser black-backed gulls *Larus fuscus*. Gulls were incidentally recorded on an adjacent property to the north and the roof of B4, however the roof of B4 is shallowly pitched and not suitable for nesting. House martins and swifts were recorded flying over the school but no evidence of nest sites were incidentally recorded. Swallow are reported to nest within the bicycle shelters on-site (B8). House sparrow were noted calling within the scrub adjacent to the library and nearby gardens, and gathering pampas grass seed from behind B2 and likely nest in nearby residences.
- 4.61 The off-site garden hedgerows, ornamental planting, and scattered trees within the Site are likely to provide the most valuable nesting and foraging habitats for birds. The buildings are also reported to support swallow and could also be used by nesting house martin, swift and house sparrow. The semi-improved/amenity grassland habitat may also present a foraging resource for some ground feeding species such as starling *Sturnus vulgaris*. Nesting birds are legally protected under the Wildlife and Countryside Act, 1981 (as amended) so are taken forward for further assessment herein.

Reptiles

- 4.62 A total of 43 records of four reptile species were identified within the search area, including slow-worm *Anguis fragilis*, grass snake *Natrix helvetica*, adder *Vipera berus* and common lizard *Zootoca vivipara*. The closest records were of slow worms, located c. 450m south-west of the Site, as recently as 2018, and c. 600m north of the Site from 2012. One record of an adder came from the grounds of a local school, c.1.3km north of the Site.

4.63 Habitats on-site have low suitability for reptiles due to their generally homogenous nature and regular maintenance. The small area of semi-natural grassland, ornamental planting and debris near the southern boundary with the allotments and gardens could potentially support very low numbers of reptiles such as slow-worm. Significant populations are unlikely to occur on-site but reptiles are taken forward in this assessment on the basis of their legal protection.

Amphibians

4.64 A total of 57 records of four amphibian species were identified within the search area, including common toad *Bufo bufo*, common frog *Rana temporaria*, palmate newt *Lissotriton helveticus* and great crested newt *Triturus cristatus*. The closest record is of a dead common frog, located c. 150m north-west on Cowbridge Road, with two further records in Pontyclun. All other records were a significant distance from the Site (>1km), and separated by significant barriers such as roads and housing.

4.65 It's possible that the on-site pond supports common amphibian species though population sizes are unlikely to be significant given the condition of the pond. Amphibians are a local priority species with common toad a national priority species. Common amphibian species are not considered to warrant specific further assessment in this report but they are included within precautionary working methods and ecological enhancement measures for the Site.

Great Crested Newt

4.66 Of the above records, a total of 27 were returned for great crested newts (GCN) from within the search area, with 21 of the records given for the same location c. 2.1km south of the Site between September 2008 and March 2009. The closest record is c. 1.9km from the Site.

4.67 Despite spending much of their annual lifecycle within the terrestrial environment, great crested newts are dependent upon the presence of suitable aquatic breeding habitat in order for a population to persist. One small lined pond is present on-site, but a desktop search of the study area did not identify any additional ponds within the 500m dispersal range for GCN. This does not eliminate the potential for unidentified ponds in the local residential gardens, and aerial imagery does suggest a possible pond within a garden c. 75m south.

4.68 The on-site pond is small in size, approximately 3m x 1.5m, and was overgrown with emergent vegetation, largely horsetail (*Equisetum* sp.). Water levels were generally very shallow during visits, with some emergent water lily present and submerged pondweed but limited other egg laying opportunities. Overall this aquatic feature is considered to have poor suitability for great crested newt. There is also limited terrestrial habitat within the Site for this species, restricted to some

scattered introduced shrubs, disused overgrown green houses and discarded pallets for shelter.

4.69 A Habitat Suitability Index (HSI) assessment of the pond was undertaken in April 2021. This assessment aimed to determine the suitability of the pond to support breeding great crested newts, based on key factors, such as size, presence of waterfowl and fish, shading, and presence of other nearby ponds. As summarised in Table 2 below, the HSI assessment returned a score of 0.64, indicating average suitability though this does not reflect the low water levels. As such, a further eDNA survey was undertaken to provide evidence on the presence/likely absence of GCN at the Site.

Table 2: Summary of Habitat Suitability Index assessment for on-site pond (see Oldham *et al*, 2000 for further detail of assessment criteria)

Criterion	Result	Score
Location	Zone B	0.5
Pond area	<50m ²	0.05
Pond drying	Never dries	0.9
Water quality	Moderate	0.67
Shade	0-60%	1
Waterfowl	Absent	1
Fish	Absent	1
Ponds	0	0.1
Terrestrial habitat	Moderate	0.647
Plant cover	81-85%	0.95
HSI		0.644

4.70 Water samples were obtained from the pond on 17 May 2021 and tested for great crested newt eDNA by ADAS. A negative result was returned with no signs of inhibition or degradation of the sample which might otherwise undermine the result. Therefore great crested newt are considered to be likely absent from the Site. An extract of the eDNA analysis report is included in Appendix G.

Invertebrates

4.71 A total of 214 records of 21 priority and protected invertebrate species were identified from within the search area. A further seven other species of Conservation Concern were also reported, and 14 species of Local Importance. The majority of records relate to woodland, scrub, habitat mosaic sites or water courses around the periphery of the existing settlement areas, with a large number of records for marsh fritillary butterfly *Euphydryas aurinia*. The closest records are of small pearl bordered fritillary *Boloria selene* located within woodland c. 275m south of the Site, across the River Ely. Given the small amount of green space present on-site and its regular management, opportunities for

invertebrates are considered to be limited. Invertebrates are scoped out of further assessment within this report however opportunities to enhance the Site for invertebrates have been considered within the development proposals, as discussed below.

Future Baseline

4.72 This Site is currently under constant, active management as a school site. Whilst usage of some parts of the Site may change over time, the overall ecological value of the Site is likely to be relatively stable.

Summary of Ecological Features

4.73 Table 3 below summarises all important ecological features identified within the respective zones of influence, together with the geographic context of their importance:

Table 3. Summary of important ecological features and their geographic context

Ecological Feature	Geographic Context of Importance and/or Protection Status
Cardiff Beech SAC	International
Ely Valley SSSI	National
Llantrisant Common and Pastures SSSI	National
Fforest Fach Farm SINC	County
Invasive species	Wildlife and Countryside Act, 1981
Pond	Local
Bats	Local
Nesting birds	Wildlife and Countryside Act, 1981
Reptiles	Wildlife and Countryside Act, 1981

5.0 ASSESSMENT OF EFFECTS

The Proposed Development

- 5.1 Planning permission is sought for the redevelopment of the existing school site at Pontyclun. The following impact assessment is based on the Illustrative Landscape Masterplan prepared by Ares Landscape Architects Ltd.
- 5.2 The construction phase of the proposed development will comprise the following:
- Phased demolition of the existing school buildings, whilst the school remains operational.
 - Construction of one large school building with associated outbuildings, parking, access infrastructure and amenity areas.
 - The establishment of new landscape planting, including amenity play areas, new tree/woodland planting and grassland.
 - Establishment of Sustainable Urban Drainage Systems (SUDS) including areas of rain garden planting and swale/dry attenuation areas.
- 5.3 The operational phase of the proposed development will comprise the following:
- Occupation of new school buildings
 - Increase in human activity, as a result of increased school capacity
 - Ongoing management of new habitats

Assumptions

- 5.4 The following assumptions have been made during the assessment of potential effects of the proposed development on important ecological features. Although 'assumed' and therefore taken as part of the pre-mitigation scenario, these measures are referenced in the proceeding sections where integral to the mitigation strategy.
- 5.5 In accordance with BS42020:2013, it is assumed that a Construction Environmental Management Plan (CEMP) will be secured by planning condition and prepared at the detailed design stage. In addition to the construction phase impact avoidance and mitigation measures identified in the following sections, the CEMP will detail standard environmental control measures, including though not limited to the following:
- Implementation of strict protection measures for the root protection areas of retained trees, in accordance with BS5837:2012
 - Standard best practice construction phase pollution prevention and control measures to prevent deterioration of retained or neighbouring habitats

- Sensitive working methods and timing to avoid direct impacts to nesting birds (generally vegetation removal outside nesting season of March through August or carrying out works after a nesting bird check/survey)
- Sensitive working methods and supervision of vegetation clearance where required to avoid impacts to amphibians, reptiles and hedgehog
- Not leaving open trenches overnight to avoid trapping wildlife such as hedgehogs, unless otherwise providing a means of escape
- Avoiding implementing any lighting during the temporary construction activities except where absolutely necessary
- Utilising designated vehicle access routes to avoid unnecessary damage to retained habitats.

5.6 In accordance with BS42020:2013, it is assumed that a Landscape and Ecology Management Plan (LEMP) will be secured by planning condition and prepared at the detailed design stage. The LEMP will set out measures for the establishment and long-term management of newly created and retained habitats to maximise benefits for biodiversity.

5.7 As a bat roost has been identified within building B5, a licence would need to be granted by Natural Resources Wales for the demolition works. The licence would impose strict conditions relating to the methodology and timing of the demolition, mitigation measures and monitoring requirements, full details of which cannot be confirmed at this time. Depending on planning and development timescales, update bat survey work may also be required to inform the licence (to be agreed with NRW). It is assumed that a planning condition would be used to ensure that a licence is secured, with development proposals to take place in strict accordance with the conditions of the licence.

Potential Impacts and Ecological Effects

5.8 It is an established principle (CIEEM, 2018) that, wherever possible, potential negative effects should be avoided through 'Mitigation by Design', as this gives greater certainty over deliverability, demonstrates a well-designed scheme and ensures the correct application of the 'Mitigation Hierarchy' (as advocated by BS42020:2013). Ecological input has been sought at an early stage in the design and throughout the design stage to ensure that ecological issues are carefully considered and addressed in a sensitive, practical way alongside the proposed scheme.

5.9 Rhondda Cynon Taf County Borough Council provided comments on the initial landscape strategy for the Site within a landscape workshop on 17 September 2021. The landscape proposals for the Site have been updated to reflect these comments where appropriate, as referenced in the following sections.

Invasive Species

- 5.10 It is suspected that areas of montbretia at the Site would be cleared to make way for new landscaping along the southern boundary. The presence of montbretia at the Site is not in itself a problem, as the law applies to its spread in the wild. However, to avoid a potential offence, any removed montbretia plants or soil containing bulbs and root fragments is classified as controlled waste and would need to be disposed of at a licensed landfill. If the plants are due to be retained or they persist on-site, then ongoing management to restrict its spread onto neighbouring land should be factored into the LEMP.

On-site Pond

- 5.11 The on-site pond is proposed to be lost to facilitate the redevelopment, resulting in a net loss of wetland habitat on-site. This is not considered to represent a significant ecological impact given the condition of the existing pond (and so unlikely to fulfil any criteria to be identified as a 'priority pond habitat'), However it is contrary to local and national objectives for the retention, enhancement and creation of pond habitats. It was not considered appropriate to replace the pond within the proposed scheme.
- 5.12 As the pond is to be lost in its entirety, no avoidance and mitigation measures are applicable to the pond habitat itself. However, mitigation measures are proposed to minimise harm to wildlife which may be using the pond, such as amphibians. Water will be gradually drained to check for the presence of amphibians which will be moved by a supervising ecologist to an area of retained vegetation outside of the impact zone. Areas of rockery and stones around the edge of the pond will be removed by hand to check for any amphibians that may be sheltering in cracks and crevices. Any remaining vegetation removed from the pond will be left on the adjacent grassland for 24 hours to allow pond wildlife to disperse before disposal. Finally, the pond liner will be carefully removed prior to backfilling. Any records of amphibian species, or other notable wildlife found, will be submitted to SEWBRc.

Bats

- 5.13 A common pipistrelle roost has confirmed within building B5. Demolition of the building would result in the loss of the roost which is thought to be used by a small number of non-breeding bats. The roost is of low conservation significance but its loss would constitute an offence under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act, 1981 (as amended).
- 5.14 As identified in paragraph 5.7, an EPS mitigation licence would need to be granted by Natural Resources Wales for the demolition works. The licence would impose strict conditions relating to the methodology and timing of the demolition, mitigation measures and monitoring requirements. Measures will include the installation of three bat boxes on

one of the retained trees on-site to house any bats found during the licenced demolition of B5, supervised soft stripping of roof areas by an NRW Licenced Ecologist and installation of new roosting features in the new building to replace those roost locations in B5. Given the phased nature of demolition works which will cause a lag in demolition of other structures and trigger the need for update surveys, the licence will be prepared to cover the whole site works, such that any mitigation relating to other buildings can be addressed on a building by building basis at the later demolition stages (to be agreed with NRW within the method statement). It is assumed that a planning condition would be used to ensure that a licence is secured, with development proposals to take place in strict accordance with the conditions of the licence.

- 5.15 Additional features will be provided in the new building to replace opportunities lost in other buildings to be demolished, with new tree planting, perimeter ivy screens and hedge planting considered to result in an increase in suitable foraging habitat for bats on-site.
- 5.16 A sensitive lighting strategy will be prepared that minimises any light spill from new light sources and reduces overall light spill onto retained features, with particular respect to replacement and new bat roosting features incorporated into the new building and existing trees, to allow bats to use roost locations undisturbed and continue to move through the local landscape.

Nesting birds

- 5.17 Clearance of shrubs, trees and buildings could result in an offence under the Wildlife and Countryside Act, 1981 (as amended) if they take place whilst birds are actively nesting. The demolition of B8 will remove a known nesting site for swallows.
- 5.18 Impacts to nesting bird habitat should occur during the period September to February (inclusive) to avoid impacts to nesting birds wherever possible. Should works be required outside this period, a pre-commencement nesting bird check will be completed by a suitably qualified ecologist to confirm whether any nesting birds are present. Where this is the case, the works would need to be delayed until the nesting attempt has naturally concluded.
- 5.19 Replacement swallow nest sites will be incorporated into the new structure to retain this resource for the local swallow population, comprising three nest cups under an overhang on the north-west inside corner of the building.

Reptiles

- 5.20 There is a very low risk of killing or injuring common reptile species during clearance works in the south-east of the Site. As individual animals are

legally protected from harm under the Wildlife and Countryside Act, 1981 (as amended), such impacts would still constitute an offence.

5.21 As only a limited area of potential reptile habitat is to be impacted, it is considered appropriate to undertake some precautionary working methods during clearance of the pond, shrubs and any debris in this area. Works would be timed during the period when reptiles are active (April-September) and would involve the careful strimming of grassland and/or dismantling of reptile habitat under an ecological watching brief to disperse any animals to retained boundary habitats such as the community allotments.

Summary of Effects

5.22 Table 3 below summarises the assessment of potential impacts on each important ecological feature, proposed mitigation and the assessed residual effects.

Table 3. Summary of effects

Important Ecological Feature	Potential Impacts and Effects	Avoidance & Mitigation Measures	Mechanism by which Measures are Secured	Residual Effects
Invasive species	Risk of spread, breach of legislation	Controlled removal of contaminated soil where applicable	CEMP secured through planning condition	No significant effect
Pond	Loss of small amount of pond habitat	Sensitive removal methods to reduce harm to pond wildlife	CEMP secured through planning condition	No significant effect
Bats	Loss of non-breeding pipistrelle night roost	Demolition works completed under licence, replacement roosting opportunities, sensitive lighting strategy	Mitigation measures will be conditioned within the licence, and can be secured by planning condition	No significant effect
Nesting birds	Risk of impacts to nests, legislative breach	Timed clearance works/pre-commencement check	CEMP	No significant effect
Reptiles	Minor risk of killing/injury, legislative breach	Precautionary working methods	CEMP	No significant effect

Cumulative Effects

5.23 Due to the scale and nature of the proposed development, a detailed assessment of potential cumulative effects has not been undertaken.

Compensation

- 5.24 No significant residual negative effects on important ecological features are anticipated to result from the proposed development, following the inclusion of impact avoidance and mitigation measures described above.
- 5.25 However, the proposed development will include compensatory nest provision for swallows to replace nest sites lost with the demolition of B8.
- 5.26 A BREEAM 'change in ecological value' calculation will be prepared for the school to determine the ability of the scheme to deliver net gains for biodiversity. Given the increase in semi-natural habitats compared with baseline habitats, it is considered likely to achieve significant net gains.

Enhancement

5.27 To promote adherence to the PPW and Policy AW 8 of the Rhondda Cynon Taf Local Development Plan, the following opportunities for ecological enhancement have been identified for inclusion within the proposals, to increase the overall biodiversity value of the Site and encourage further engagement with the natural environment, sustainability and education, in line with the Biodiversity Duty in Rhondda Cynon Taf:

- Inclusion of diverse range of native and 'wildlife-friendly' plants in borders and rain gardens to increase habitat availability for invertebrates and birds
- There will be net increase in tree habitat at the Site, including native trees suitable for the school setting
- Grassland areas will be managed to provide greater diversity of sward length and structure, for the benefit of invertebrates, small mammals and reptiles. Cut and collect will be used on short grassland areas to maintain low fertility (thus reducing the frequency of cuts) and benefiting diversity. Longer grassland areas will be left along the boundaries of the Site and in discrete areas in the eastern half of the Site adjacent to allotments
- A hedgehog 'house' will be provided within areas of long grassland/scrub in the east of the scheme, with hedgehog gaps along the boundary fence (c. 5x5inches) to maintain permeability through the local network of gardens, allotments and green spaces
- Two 'insect hotels' will be provided within areas of open space to provide overwintering/nesting opportunities for a range of species, as well as an educational resource for school pupils
- A range of bird and bat boxes will be provided at the Site, to comprise:
 -
 - Three bat boxes on retained trees e.g Schwegler/Vivara Pro product)

- Two bird boxes on retained trees (e.g. Schwegler 1B product)
- Seven bat boxes/tubes (e.g. Habibat/Ibstock in-built design)
- Three swallow nest cups beneath overhang on building
- Eighteen swift bricks built in to gable ends (e.g. Habibat/Ibstock in-built design)
- Three house martin nest cups on plant enclosures
- Proposed locations for wildlife features will be provided in an Ecological Enhancements Plan and appended to the LEMP.

Monitoring

5.28 No post-development monitoring of important ecological features is proposed. However, there will be ongoing monitoring of newly established and enhanced habitats as prescribed within a LEMP.

6.0 CONCLUSIONS

6.1 In the absence of any mitigation measures, the proposed development would have the potential to result in negative effects significant at up to the Local level. However, with the implementation of some straightforward mitigation and precautionary measures as proposed here, the development is not anticipated to result in any significant residual negative effects on important ecological features.

6.2 The proposed scheme seeks to provide more extensive greenspace and planting than the current site, with scope to provide a biodiversity net gain overall. Several ecological enhancement features are also proposed for inclusion to provide additional opportunities for wildlife.

6.3 The measures set out herein can be secured through appropriate conditions attached to any planning consent, and the development may therefore be delivered without harm to nature conservation interests. Specifically, it is anticipated that planning conditions would be used to secure:

- Construction Environmental Management Plan (CEMP): In addition to wider environmental controls and best practice construction management, the CEMP will set out construction-phase impact avoidance measures with respect to invasive species, pond habitats, retained trees, nesting birds and reptiles.
- Landscape and Ecology Management Plan (LEMP): The LEMP will detail the establishment and long term management of retained and newly created habitats to maximise benefits for wildlife. It will include a graphical Ecological Enhancement Plan, setting out the number, type and position of enhancement features.
- Bat Mitigation Licence: It will be necessary to obtain a licence from Natural Resources Wales to permit demolition of B5. The licence would set a requirement for update survey work as needed, and prescribe the mitigation measures to be adhered to.
- Lighting Strategy: A sensitive lighting strategy will accompany the detailed layout, ensuring that dark corridors are maintained along retained vegetation, and minimising light spill on newly created habitats and roost features to allow bats to continue to move through the landscape.

6.4 Based on the successful implementation of avoidance, mitigation and enhancement measures set out herein, the scheme is considered to accord with all relevant nature conservation legislation, as well as with the provisions of Rhondda Cynon Taf County Borough Council and the Environment (Wales) Act 2016.

7.0 REFERENCES

British Standards Institution, 2013. *BS 42020:2013 Biodiversity – Code of practice for planning and development*. London: BSI.

British Standards Institution, 2012. *BS 5837:2012 Trees in relation to design, demolition and construction: Recommendations*. London: BSI.

Buglife, no date. *Important Invertebrate Areas*. [online] Available at: <<https://www.buglife.org.uk/resources/important-invertebrate-areas/>> [Accessed September 2021].

Chartered Institute of Ecology and Environmental Management, 2016. *Guidelines for Assessing and Using Biodiversity Data*. Winchester: CIEEM.

Chartered Institute of Ecology and Environmental Management, 2017. *Guidelines for Ecological Report Writing*. Winchester: CIEEM.

Chartered Institute of Ecology and Environmental Management, 2018. *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Version 1.1. Winchester: CIEEM.

Collins, J., ed., 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 3rd ed. London: The Bat Conservation Trust.

Cresswell, P., Harris, S. and Jeffries, D.J., 1990. *The History, Distribution, Status and Habitat Requirements of the Badger in Britain*. Peterborough: Nature Conservancy Council.

Eaton, M., Aebischer, N., Brown, A., Heam, R., Lock, L., Musgrove, A., Noble, D., Stroud, D. and Gregory, R., 2015. Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds*, 108, pp.708-746.

English Nature, 2001. *Great Crested Newt Mitigation Guidelines*. Peterborough: EN.

Harris, S., Cresswell, P., and Jefferies, D.J., 1989. *Surveying badgers*. London: Mammal Society.

Joint Nature Conservation Committee, 1990. *Handbook for Phase 1 habitat survey – a technique for environmental audit*. Revised reprint 2010. Peterborough: JNCC.

JNCC and Defra (on behalf of the Four Countries' Biodiversity Group), 2012. *UK Post-2010 Biodiversity Framework*. [pdf] Peterborough: JNCC. Available at: < <http://jncc.defra.gov.uk/page-6189>> [Accessed September 2021].

Multi-Agency Geographic Information for the Countryside (MAGIC), 2013. *Interactive Map*. [online] Available at: < <http://www.magic.gov.uk/MagicMap.aspx>> [Accessed April 2021].

Oldham, R. S., Keeble, J., Swan, M. J. S. & Jeffcote, M., 2000. Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal*, 10(4), pp.143-155.

Rhondda Cynon Taf County Borough Council, 2011. *Local Development Plan 2006 – 2021*. [pdf] Available at: < <https://www.rctcbc.gov.uk/EN/Resident/PlanningandBuildingControl/LocalDevelopmentPlans/>> [Accessed April 2021].

Rhondda Cynon Taf County Borough Council, 2017. Biodiversity Duty in Rhondda Cynon Taf. [pdf] Available at: < <https://www.rctcbc.gov.uk/EN/Resident/PlanningandBuildingControl/Countryside/Biodiversity/2020/OurPolicies.aspx>> [Accessed September 2021].

The Welsh Ornithological Society, 2016. Birds of Conservation Concern in Wales 3: the population status of birds in Wales. [pdf] Available at: < <https://birdsin.wales/wp-content/uploads/2017/01/Birds-of-Conservation-Concern-Wales-3-2016.pdf>> [Accessed September 2021]

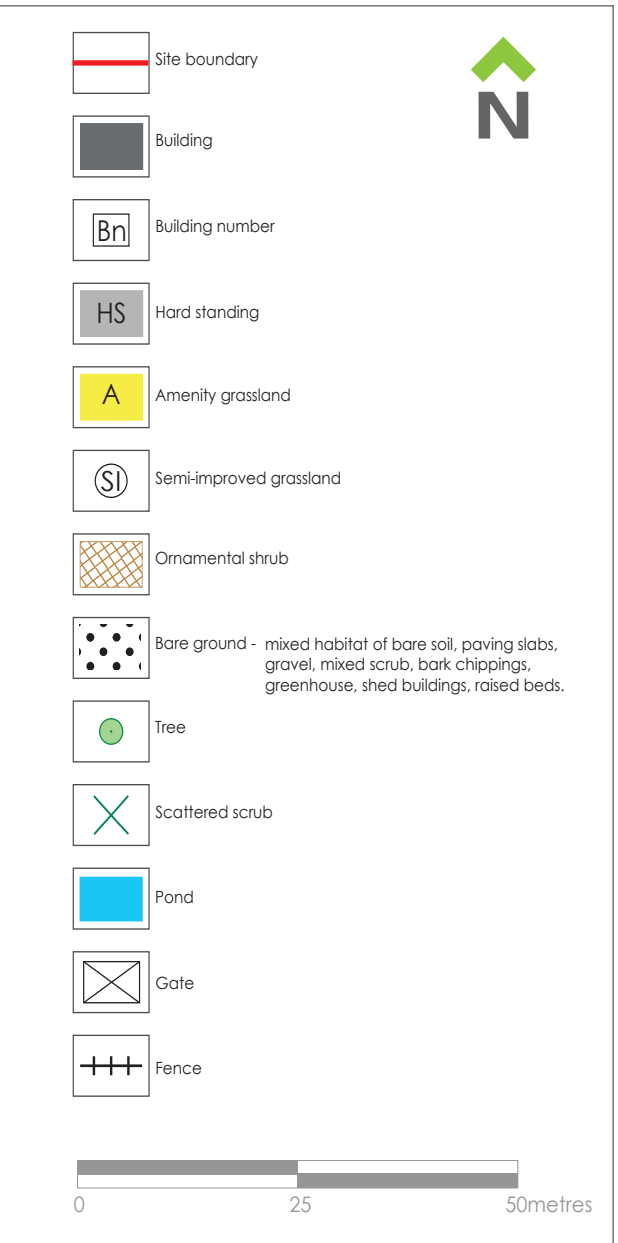
The Woodland Trust, no date. *Ancient Tree Inventory*. [online] Available at: < <https://ati.woodlandtrust.org.uk/>> [Accessed April 2021].

Welsh Assembly Government, 2009. *Technical Advice Note 5: Nature Conservation and Planning* [online, last updated January 2021] Available at: < <https://gov.wales/technical-advice-note-tan-5-nature-conservation-and-planning>> [Accessed August 2021].

Welsh Assembly Government, 2021. *Planning Policy Wales: edition 11*. [online] Available at: https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf [Accessed August 2021]

Appendix A

Habitats Plan & Photographs



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Project	Pontyclun Primary School, Pontyclun
Drawing Title	Habitats Plan
Client	HSP Consulting

Date	August 2019	Drawing No.	CSA/4388/100
Scale	Refer to scale	Rev	-
Drawn	HG	Checked	CT



Photograph 1. Northern aspect of Building B1 and adjacent grassland.



Photograph 2. Building B1 – small gaps between fascia boards and exterior wall.



Photograph 3. Building B2 - north-west elevation with B3 beyond.



Photograph 4. South-west aspect of Building B3 and adjacent amenity grassland.



Photograph 5. Building B4 – shallow pitched roof, with tiled porch extension on the north aspect



Photograph 6. Building B5 – traditional 1923 school building, with slated tiled roof and slatted vents on gable ends.



Photograph 7. Building B8 brick shelter with storage room, hipped tiled roof, and open eaves.



Photograph 8. Building B6 corrugated metal contained cabin, with corrugated roof



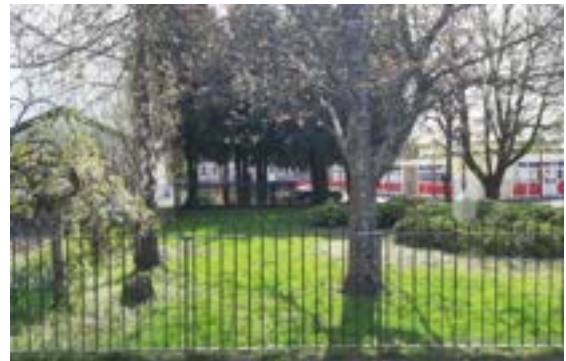
Photograph 9. Semi-improved grassland in the east of the Site, with on-site pond and scattered ornamental plants, and allotments beyond.



Photograph 10. Neglected area around disused greenhouses/sheds along south-east boundary, with tall ruderal and scrub growth.



Photograph 11. Fenced woodchip play areas, walkways, empty plant beds adjacent to allotments.



Photograph 12. Formal fenced garden area with ornamental planting and mature trees.

Appendix B

Legislation and Planning Policy

- 1.1. The **Conservation of Habitats and Species Regulations 2017** (as amended) make prescriptions for the designation and protection of Sites of Community Importance ('European sites', i.e. Special Areas of Conservation and Special Protection Areas) and European Protected Species (EPS). The latter include all native bats, great crested newts, dormice, otters and certain reptiles, listed under Annex II of the Regulations. Following the UK's departure from the European Union, the provisions of the Regulations have been retained through enactment of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which came into force on 31 December 2020.
- 1.2. The **Wildlife and Countryside Act 1981** (as amended, principally by the Countryside and Rights of Way Act 2000) forms the basis for protection of statutory designated sites of national importance (e.g. Sites of Special Scientific Interest; SSSIs) and native species that are rare and vulnerable in a national context. Additionally, badgers are protected under the **Protection of Badgers Act 1992**.
- 1.3. The **Environment (Wales) Act 2016** sets out the required for the 'sustainable management of natural resources' together with new ways of working to achieve this. Section 6 under Part 1 of the Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (the S6 duty) for public authorities in the exercise of functions in relation to Wales. The S6 duty requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and promote the resilience of ecosystems. Section 7 of Part 1 replaces the duty in section 42 of the NERC Act 2006, to publish and revise lists of living organisms and types of habitat in Wales of key significance, to sustain and improve biodiversity.
- 1.4. **The UK Post-2010 Biodiversity Framework (2011-2020)** lists the UK's most threatened species and habitats and sets out targets and objectives for their management and recovery. The UK Biodiversity Action Plan (BAP) process is delivered nationally, regionally and locally and should be used as a guide for decision-makers to have regards for the targets set by the framework and the goals they aim to achieve. The UK BAP has now been replaced by the UK Post-2010 Biodiversity Framework, however, it contains useful information on how to characterise important species assemblages and habitats which is still relevant.
- 1.5. The **Planning Policy Wales 11 (Welsh Government, 2021)** sets out the government planning policies for Wales and how they should be applied. With regards to ecology and biodiversity, Chapter 6: Distinctive and Natural Places, states that development plan strategies, policies and development proposals should be formulated to look at the long term protection and enhancement of special characteristics and intrinsic qualities of places, be these of natural, historic and built environments, ensuring their longevity in the face of change. This means

both protecting and enhancing landscapes, habitats, biodiversity, geodiversity and the historic environment in their own right, as well as other components of the natural world, such as water resources or air quality. Biodiversity loss should be reversed, pollution reduced, environmental risks addressed and overall resilience of ecosystems improved.

1.6. The PPW recognises the planning system has a key role to play in helping to reverse the decline in biodiversity and increase the resilience of ecosystems. Paragraph 6.4.3 sets out the principles that local planning authorities should apply when determining planning applications:

- Support the conservation of biodiversity, in particular the conservation of wildlife and habitats; and must provide a net gain in biodiversity
- Ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;
- Ensure statutorily and non-statutorily designated sites are properly protected and managed;
- Safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and
- Secure enhancement of and improvements to ecosystem resilience, by ensuring any adverse environmental effects are firstly avoided, then minimised, mitigated and as a last resort compensated for, and by improving diversity, condition, extent and connectivity of ecological networks.

7.1 **Technical Advice Note 5: Nature Conservation and Planning** (Welsh Assembly Government, 2009), which is referred to by the PPW, provides further guidance in respect of statutory obligations for protecting and enhancing biodiversity and geological conservation and their effects within the planning system and is a material planning consideration.

1.7. Local planning policies of relevance to ecology, biodiversity and/or nature conservation have been set out in Table 1 below.

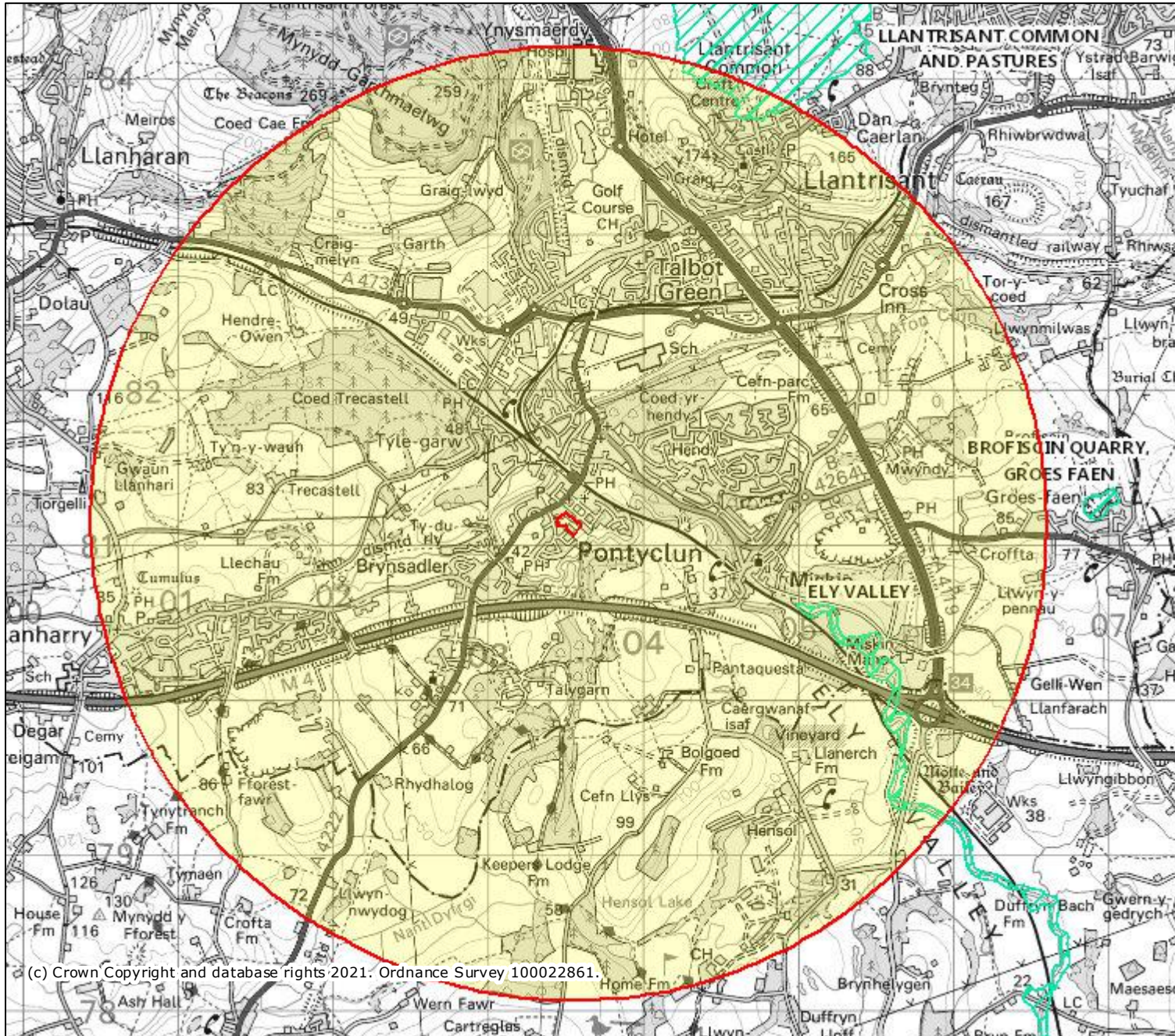
1.8. As well as Policy AW8, Rhondda Cynon Taf have Supplementary Planning Guidance on Nature Conservation, setting out further objectives and detail on the consideration of the natural environment within planning applications.

Table 1. Summary of regional and local planning policy relating to ecology



Policy	Summary
Rhondda Cynon Taf Local Development Plan up to 2021	
<p>Policy AW 8: Protection and Enhancement of the Natural Environment</p>	<p>Rhondda Cynon Taf's distinctive natural heritage will be preserved and enhanced by protecting it from inappropriate development. Development proposals will only be permitted where:-</p> <ol style="list-style-type: none"> 1. They would not cause harm to the features of a Site of Importance for Nature Conservation (SINC) or Regionally Important Geological Site (RIGS) or other locally designated sites, unless it can be demonstrated that:- <ol style="list-style-type: none"> a) The proposal is directly necessary for the positive management of the site; or b) The proposal would not unacceptably impact on the features of the site for which it has been designated; or c) The development could not reasonably be located elsewhere and the benefits of the proposed development clearly outweigh the nature conservation value of the site. 2. There would be no unacceptable impact upon features of importance to landscape or nature conservation, including ecological networks, the quality of natural resources such as air, water and soil, and the natural drainage of surface water. All development proposals, including those in built up areas, that may affect protected and priority species will be required to demonstrate what measures are proposed for the protection and management of the species and the mitigation and compensation of potential impacts. Development proposals must be accompanied by appropriate ecological surveys and appraisals, as requested by the Council. <p>Development proposals that contribute to the management or development of Ecological Networks will be supported.</p>

Appendix C

Desk Study Information



Legend

-  National Nature Reserves (Wales)
-  Sites of Special Scientific Interest (Wales)

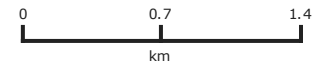
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xmin = 296400

ymin = 177200

xmax = 310900

ymax = 185100



Map produced by MAGiC on 9 June, 2021.

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Site Check Report Report generated on Wed Jun 09 2021
You selected the location: Centroid Grid Ref: ST03518114
The following features have been found in your search area:

Sites of Special Scientific Interest (Wales)

Name	ELY VALLEY
Eastings	306672
Northings	178271
First Notified	01/01/1959
Last Notified	07/09/1983
Confirmation Date	Null
Cartesian Area (Ha)	69.222249

Name	LLANTRISANT COMMON AND PASTURES
Eastings	304807
Northings	184458
First Notified	31/05/2000
Last Notified	Null
Confirmation Date	21/02/2001
Cartesian Area (Ha)	113.440482




National Nature Reserves (Wales) - points
No Features found

National Nature Reserves (Wales)
No Features found

Sites of Special Scientific Interest (Wales) - points
No Features found



Legend

-  Ramsar Sites (Wales)
-  Special Areas of Conservation (Wales)
-  Special Protection Areas (Wales)

Projection = OSGB36
 xmin = 280600
 ymin = 168700
 xmax = 325900
 ymax = 193500



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Site Check Report Report generated on Wed Jun 09 2021
You selected the location: Centroid Grid Ref: ST03518114
The following features have been found in your search area:

Special Areas of Conservation (Wales) - points

Name	Cardiff Beech Woods
Reference	UK0030109
Marine	n
Date Notified	13/12/2004
Cartesian Area (Ha)	115.707247

Special Areas of Conservation (Wales)

Name	Cardiff Beech Woods
Reference	UK0030109
Marine	n
Date Notified	13/12/2004
Cartesian Area (Ha)	115.707247

Ramsar Sites (Wales) - points

No Features found

Ramsar Sites (Wales)

No Features found

Special Protection Areas (Wales) - points

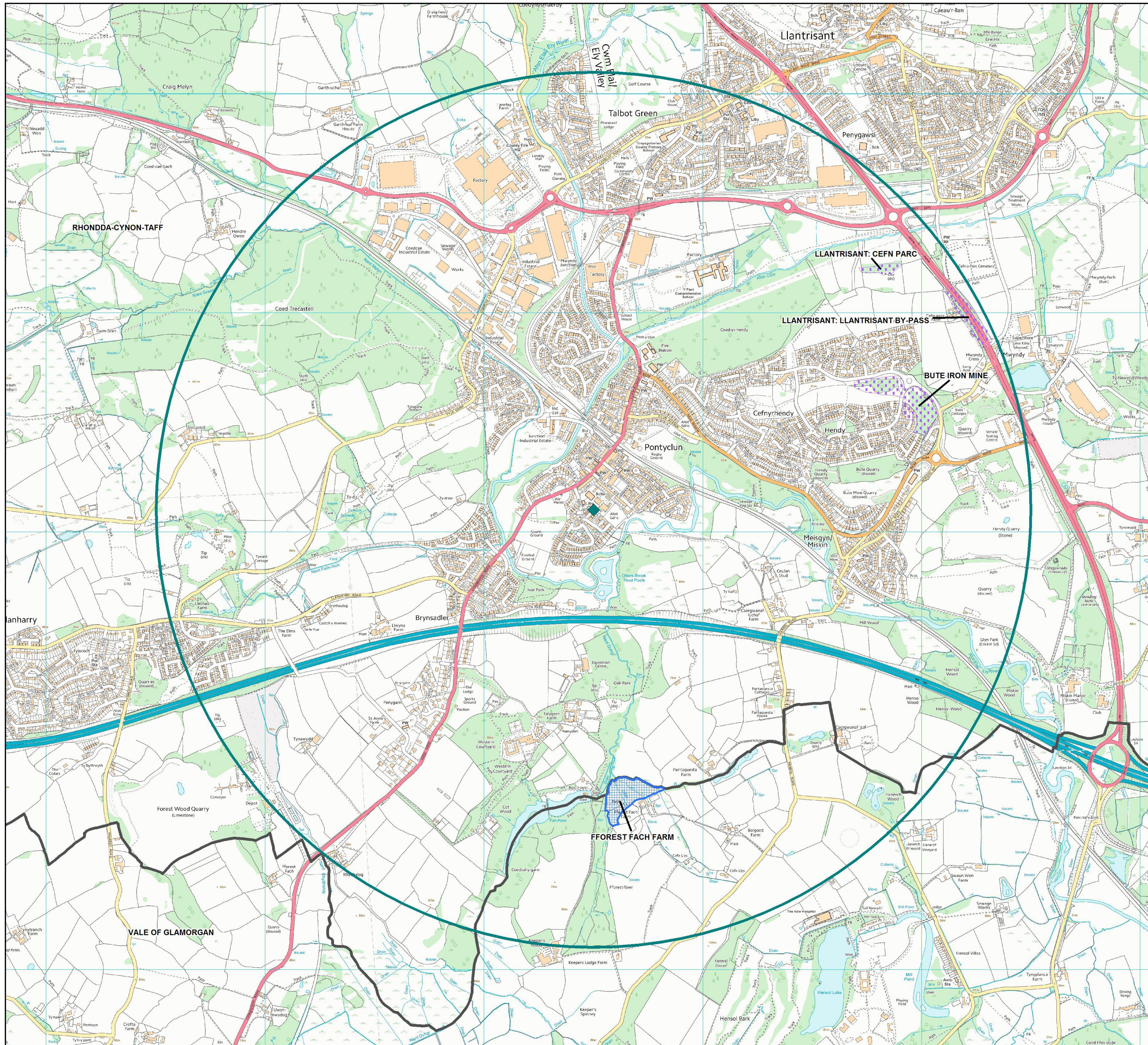
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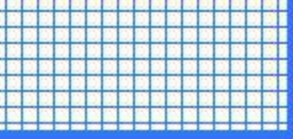


Special Protection Areas (Wales)

No Features found

BIODIVERSITY INFORMATION SEARCH (DESIGNATED SITES):

LAND AT PONTYCLUN PRIMARY SCHOOL ST0350081100



-  Centre of Search Area
-  2km Search Buffer
-  Site of Importance for Nature Conservation
-  Regionally Important Geological Site
-  Unitary Authority Boundary

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Plot produced on 01/08/2019 on behalf of CSA Environmental by

Appendix D

Habitats and Flora Species List

Flora Species List							
SITE ref. & NAME	4388 Pontyclun Primary School						
DATES OF SURVEY AND SURVEYORS	1. 02/08/2019 CT & HG	2. 04/06/2021 CT					
Latin name	Common Name	Amenity	Semi-improved grassland	Trees	Scrub and Tall ruderal	Pond	Ornamental planting
Herb species							
<i>Asteraceae</i> sp.	Daisy sp.		X				
<i>Bellis perennis</i>	Daisy	X	X				
<i>Calystegia sepium</i>	Hedge bindweed				X		
<i>Capsella bursa-pastoris</i>	Shepherd's purse		X				
<i>Cardamine</i> sp.	Bitter-cress	X	X				
<i>Cerastium</i> sp.	Mouse-ear		X				
<i>Clematis</i> sp.	Clematis						X
<i>Crocsmia x crocosmiflora</i>	Mortbretia						X
<i>Epilobium hisutulum</i>	Great willowherb				X		
<i>Epilobium montanum</i>	Broad-leaved willowherb				X		
<i>Equisetum</i> sp.	Horsetail					X	
<i>Geranium molle</i>	Cut-leaved crane's-bill		X				
<i>Hebe</i> sp.	Hebe sp.						X
<i>Humulus lupulus</i>	Hop				X		
<i>Hyacinthoides non-scripta</i>	Bluebell		X				
<i>Hypochaeris radicata</i>	Cat's-ear		X				
<i>Narcissus</i> sp.	Daffodil		X				
<i>Nymphaeaceae</i> sp.	Water-lily					X	
<i>Plantago lanceolata</i>	Ribwort plantain	X	X				
<i>Primula</i> sp.	Primrose		X				
<i>Pulicaria dysenterica</i>	Common fleabane		X				
<i>Ranunculus repens</i>	Creeping buttercup	X	X				
<i>Rumex obtusifolius</i>	Broad-leaved dock		X				
<i>Senecio vulgaris</i>	Groundsel	X					
<i>Sonchus oleraceus</i>	Smooth sow-thistle		X				
<i>Taraxacum officinale</i> agg.	Dandelion	X	X				
<i>Trifolium repens</i>	White clover		X				
<i>Veronica persica</i>	Common field speedwell		X				
Sedges and rushes							
<i>Luzula campestris</i>	Field wood-rush	X					
<i>Carex pendula</i>	Pendulous sedge						X
Grasses							
<i>Arrhenatherum elatius</i>	False oat-grass		X				
<i>Cortaderia selloana</i>	Pampas grass						X
<i>Dactylis glomerata</i>	Cock's-foot		X				
<i>Festuca rubra</i>	Red fescue		X				
<i>Lolium perenne</i>	Perennial rye grass		X				
<i>Poaceaea</i> sp.	Bamboo		X				
<i>Poa annua</i>	Annual meadow-grass		X				
Woody species							
Coniferous							
<i>Chamaecyparis lawsoniana</i>	Lawson's cypress			X			
<i>Picea abies</i>	Norway spruce			X			
<i>Pinus nigra</i>	Black pine			X			
Broadleaved							
<i>Acer platanoides</i>	Norway maple			X			
<i>Aesculus hippocastanum</i>	Horse chestnut			X			
<i>Betula pendula</i>	Silver birch			X			
<i>Betula pubescens</i>	Downy birch			X			
<i>Buddleja</i> spp.	Buddleia				X		
<i>Cupressus x leylandii</i>	Leylandii			X			
<i>Fraxinus excelsior</i>	Ash			X			
<i>Ilex aquifolium</i>	Holly			X			
<i>Prunus avium</i>	Cherry			X			
<i>Prunus laurocerasus</i>	Cherry laurel				X		X
<i>Prunus spinosa</i>	Blackthorn				X		
<i>Rubus fruticosus</i> agg.	Bramble				X		
<i>Salix caprea</i>	Goat willow			X			

* **Domin Score:** 1 <4% (few individuals), 2 <4% (several individuals), 3 <4% (many individuals), 4 (4-10%), 5 (11-25%), 6 (26-33%), 7 (34-50%), 8 (51-75%), 9 (76-90%), 10 (91-100%)

Appendix E

Evaluation & Assessment Methods

- 1.1. Ecological features are evaluated and assessed in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) 2018 Guidelines for Ecological Impact Assessment (EclA). For clarity, the evaluation and assessment process adopted within this EclA is set out below.

Establishing Potentially Important Ecological Features

- 1.2. Ecological features are assessed where they are considered to be important, and where they may be impacted by a proposed development. A feature may be considered important for a variety of reasons, such as quality, extent, rarity and/or statutory protection. Table 1 below sets out a non-exhaustive list of ecological features that are typically considered, along with key examples:

Table 1. Potentially important ecological features (adapted from CIEEM 2018)

Potentially Important Ecological Features	Typical examples
Statutory designated sites under international conventions or European Legislation	Wetlands of International Importance (Ramsar sites), Special Areas of Conservation (SAC), Special Protection Areas (SPA)
Statutory designated sites under national legislation	Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR, Local Nature Reserves (LNR)
Non-statutory, locally designated wildlife sites	Local Wildlife Sites (LWS), County Wildlife Sites (CWSs), Sites of Importance for Nature Conservation (SINCs)
National biodiversity lists	Habitats or Species of Principal Importance for the Conservation of Biodiversity (Section 41, NERC Act 2006), Ancient Woodland Inventory
Local biodiversity lists	Local Biodiversity Action Plan (BAP) priority species or habitats
Red Listed / Rare Species	Species of conservation concern, Red Data Book (RDB) species, Birds of Conservation Concern, nationally rare and nationally scarce species
Legally Protected Species	E.g. species listed under Sch.5 of the W&C Act 1981, or Sch.2 of the Hag. Regs. 2017
Legally Controlled Species	E.g. species listed under Sch.9 of the W&C Act 1981

- 1.3. It should also be noted that the social, community, economic or multi-functional importance attributed to ecological features are not assessed as they fall outwith the scope of this assessment.

Establishing Likely Zone of Influence

- 1.4. The ‘zone of influence’ for a project is the area over which ecological features may be subject to significant effects as a result of the project and associated activities. The project’s zone of influence varies across different ecological features, which have different vulnerabilities and

sensitivities. For the purposes of this assessment, the following zones were considered:

- International statutory nature conservation designations up to 10km from the Site
 - National and local statutory nature conservation designations up to 3km from the Site
 - Non-statutory locally designated wildlife sites up to 1km from the Site
- 1.5. These arbitrary distances are considered sufficient for identifying the nature conservation designations which could be subject to significant effects. However, it is acknowledged that in certain circumstances effects beyond these distances are possible and should be considered as far as is reasonably practicable to do so.
- 1.6. For other ecological features, such as habitats and species, the appropriate zone of influence is described and justified as appropriate within the report, depending on their respective sensitivity to an environmental change.
- 1.7. The results of professionally accredited or published scientific studies have been used and referenced, where available, to establish the spatial and temporal limits of the biophysical changes likely to be caused by specific activities, and to justify decisions about the zone of influence.

Geographic Context and Significance Criteria

- 1.8. The importance of ecological features, as well as the significance of any likely impacts and their effects, are considered here within a defined geographic context:
- International
 - National
 - Regional
 - County
 - Local
- 1.9. The size, conservation status and the quality of features are all relevant in determining their importance and assigning this to the geographic scale. Where the importance of a feature is considered to fall below the Local scale, they are scoped out of detailed assessment.
- 1.10. Impacts and their effects are taken to be significant where they support or undermine biodiversity conservation objectives, with the scale of significance defined according to the above geographic context. Where an impact or effect is unlikely to be perceptible at a Local scale, this is taken to be not significant.

Characterising Ecological Impacts and their Effects

1.11. Where likely significant ecological impacts and effects are identified in connection with the proposed project, these are considered and described with reference to the following characteristics (where this is helpful in accurately portraying the ecological effect and determining the scale of significance):

- Positive or negative (i.e. does the anticipated change accord with nature conservation policies and objectives?)
- Extent (i.e. the spatial area over which the impact or effect may occur)
- Magnitude (i.e. the quantified size, amount, intensity or volume)
- Duration (i.e. the timeframe over which the impact or effect may occur, in both human and ecological terms)
- Frequency and timing (i.e. the number of times an activity occurs, where this is likely to influence the effect)
- Reversibility (i.e. is spontaneous recovery possible or may the effect be counteracted by mitigation?)

Appendix F

Bat Survey Report

Bat Survey Report

Pontyclun Primary School, September 2021

1.0 Introduction

- 1.1 The following report sets out the findings of a series of bat surveys undertaken at Pontyclun Primary School, Pontyclun, Rhondda Cynon Taf (hereafter referred to as 'the Site'), to inform proposals for redevelopment and expansion of the existing school site. The surveys were undertaken by CSA Environmental and TACP UK Ltd on behalf of the Welsh Educational Partnership Company (WEPCo).
- 1.2 The Study Area occupies a total area of c. 1.2ha and is located around central grid reference ST 0350 8115, located centrally in the village of Pontyclun, Rhondda Cynon Taff. The Site comprises several single storey school buildings and an adjacent small public library, with associated parking, sports courts and play areas, bounded by residential housing and a community allotment.
- 1.3 Further to the findings of a Preliminary Ecological Appraisal (PEA) (CSA/4388/01) undertaken in August 2019 and updated in April 2021, in which local records and suitable habitats were identified, further surveys were recommended in relation to bats. The following surveys and assessments have been carried out, and are reported here-in:
 - Desk study (August 2019, updated in part in April 2021)
 - Preliminary Roost Assessment by CSA Environmental (April 2021)
 - Bat roost surveys by TACP UK Ltd (June-July 2021)
- 1.4 The purpose of surveys was to determine the level of bat activity across the Site, as well as identify any evidence of, or potential for roosting. The content of this report has been determined with due consideration for best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017) and the Bat Conservation Trust (Collins et al. 2016).

2.0 Legislation

- 2.1 All British bat species are legally protected under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended). These Regulations make it an offence to:
 - Deliberately capture, injure, or kill a bat

- Deliberately disturb bats, impairing their ability to survive, breed, reproduce or rear/nurture their young, or which significantly affects the local distribution or abundance of the species
 - Damage or destroy a breeding site or resting place used by bats
- 2.2 All bats and their roosts in the UK were previously fully protected under the Wildlife & Countryside Act 1981 (as amended). Amendments to the Act have removed most provisions as they relate to bats, however it remains an offence to:
- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection
 - Intentionally or recklessly obstruct access to any structure or place used for shelter or protection
- 2.3 It is important to note that bat roosts are protected throughout the year, regardless of whether or not bats are present at the time. Under the Regulations, the offence of damaging or destroying a breeding site or resting place is subject to 'strict liability', i.e. an offence is committed irrespective of whether the causal act was deliberate or otherwise.
- 2.4 Where development is proposed that would result in an offence under the Regulations, a European Protected Species (EPS) statutory derogation licence (often termed 'EPS Mitigation Licence') will need to be secured from Natural Resources Wales to permit an act that would otherwise be unlawful. Such a licence can only be granted following receipt of planning permission with all relevant conditions discharged, and where it has been demonstrated that specific statutory derogation tests have been met.

3.0 Methods

- 3.1 The following survey methods, design, data analysis and interpretation have been undertaken with due consideration of the Bat Conservation Trust (BCT) guidelines 3rd Edition (Collins, 2016).

Preliminary Roost Assessment (PRA)

Structures

- 3.2 A detailed external inspection of all eight buildings on-site was completed on 06 April 2021 by Cerian Thomas MCIEEM of CSA Environmental, along with an internal inspection of the loft spaces within one of the buildings where accessible, using high-powered torches, binoculars and ladder as appropriate.
- 3.3 External inspection focused on identifying potential bat access points to the interior of each structure and any external features that could potentially be used by crevice-dwelling species. Particular attention was given to window sills, window panes, weatherboarding, and pitch/ridge tiles; as evidence is typically found in these locations.

- 3.4 The internal inspection involved a systematic search for bats or any evidence of their activity, in particular droppings and/or feeding remains within the loft spaces where present.
- 3.5 A description of the structures was made, including construction, condition and age (where known).
- 3.6 The aim of this inspection is to record direct (i.e. actual roosting bats) or indirect evidence of roosting bats (e.g. droppings), as well as the nature and number of features with 'potential' to support roosting bats. This includes consideration of structures to support bats whilst in hibernation.

Assessing 'Potential'

- 3.7 All structures were assigned to one of four categories in respect of their 'potential' to support roosting bats, or the confirmation of any bat roosts identified. 'Potential' in this context is taken to be the broad suitability of features to support roosting bats, based upon the nature, condition or structure of such features, in the absence of confirmed evidence of roosting.
- 3.8 Assigning the following categories is intended to determine the effort of any further targeted survey or inspections which are necessary to prove presence or likely absence of roosting bats, rather than to assign importance to such features.
- 3.9 The following categories are assigned to structures. Either:
- **Confirmed roost** – where one or more bat roosts are identified during PRA inspections, either through direct sightings of bats, and/or indirect evidence such as bat droppings, Or;
 - **High** – A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
 - **Moderate** – A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, assessments at this stage are made irrespective of species conservation status).
 - **Low** – A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
 - **Negligible** – Negligible features likely to be used by roosting bats.
- 3.10 The potential of a structure to support roosting bats is often influenced by its age and construction, thermal stability, lighting and levels of

human activity. Furthermore, the proximity to foraging habitat - particularly woodland, parkland and wetland - as well as the presence of navigational routes (e.g. hedgerows, treelines and watercourses) influence both the potential for bats to roost, as well as the species which may roost. Professional judgement is therefore applied, based upon known factors which effect the potential of features to support roosting bats, insofar as determining the need or scope of further surveys or inspections.

Limitations

- 3.11 The majority of the buildings could only be inspected externally due to absence of accessible internal roof spaces and as such a precautionary approach to the assessment of their potential was used. Building B5 was the only structure which could be surveyed internally.

Roost Surveys

- 3.12 Following the findings of the PRA, three roost presence/absence surveys, comprising two dusk emergence and one dawn re-entry survey were undertaken on building B5, and one dusk emergence and one dawn re-entry survey were undertaken on a further five buildings to confirm the presence/likely absence of roosting bats. The surveys aim to determine the character of any identified roosts, namely species present, number of roosting bats and roost type (i.e. day, night feeding, maternity and transitory). Surveys were conducted by TACP UK Ltd, with full methods and results presented in the RCT Primaries Bat Survey Report (ref 2021-08-12_2378_REP_P1_S3) in Appendix F.2.
- 3.13 The surveys were led by Samantha Shove (BSc, MCIEEM, CEcol, CEnv) of TACP UK Ltd in suitable weather conditions, with an extract confirming dates, timings and conditions outlined in Table 1 below. Surveyors were positioned to give good coverage of all buildings.

Table 1. Roost survey details at Pontyclun Primary School (taken from TACP survey report)

Building	Date	Period	Time	Weather Conditions
B1, B3	21/06/2021	Dusk	21:35 – 23:35	14°C (start) 12°C (end), gentle breeze with occasional moderate gusts, overcast, short period of spotting rain 21:59 to 22:09
B5, B6, B7, B8	22/06/2021	Dusk	21:20 – 23:20	15°C (start) 11°C (end), light to gentle breeze, partly cloudy
B6, B7, B8	08/07/2021	Dawn	03:15 – 05:15	13°C (start) 12°C (end), light breeze, partly cloudy

B5	09/07/2021	Dawn	03:15 – 05:15	14°C (start) 12°C (end), light breeze, partly cloudy
B5	19/07/2021	Dusk	21:05 – 23:05	24°C (start) 20°C (end), clear skies, calm
B1, B3	21/07/2021	Dawn	03:35 – 05:35	17°C (start) 16°C (end), clear skies, calm

Limitations

- 3.14 Security and street lighting was seen to shine on some of the buildings (B1, B3, B5, B7) during some of the surveys, with the potential to impact their suitability for roosting bats.
- 3.15 Some short periods of light rain occurred during one of the surveys. However, owing to its intensity and duration, the weather conditions were considered suitable overall and do not present a significant limitation.

4.0 Results

Preliminary Roost Assessment

Structures

- 4.1 Eight buildings within the Site were assessed for external features for bat roosting potential, with the roof void of B5 also assessed for internal evidence and suitability. The majority of buildings could not be accessed internally.
- 4.2 Full descriptions of each building and a discussion of the bat roosting features and evidence is given in Appendix F.1, with a summary below.
- 4.3 Of the eight buildings assessed, building B5 was found to be a confirmed roost with multiple bat droppings found within the roof void. B3 was found to have moderate potential, with B1, B2 and B4 having low to moderate potential for roosting. B4 and B7 were assessed to have negligible bat roosting potential.

Roost Surveys

- 4.4 The bat surveys conducted by TACP UK Lt in June and July 2021 confirmed the presence of an active roost within building B5, with the emergence of a single common pipistrelle *Pipistrellus pipistrellus* observed from the central vent on the northern aspect during the final survey in July. The building is considered likely to constitute a night roost for common pipistrelle bats, used on an occasional basis.

- 4.5 Three bat species were recorded foraging or commuting during the survey: common pipistrelle, soprano pipistrelle *Pipistrellus pygmaeus* and noctule *Nyctalus noctula*. It is suspected that soprano pipistrelle may also utilise building B5 as an occasional night roost given that the two pipistrelle species have similar roosting preferences.
- 4.6 As concluded in the TACP Bat Survey Report, it should be noted that infrequent roosting behaviour can be difficult to identify and characterise. With regards to the level of activity recorded on-site, along with the roosting potential identified within the other structures, it is possible that other buildings on-site could also be used by bats in a similar manner on an infrequent basis.
- 4.7 Full details of the roost survey results is provided in the appended Bat Survey Report (Appendix F.2).




5.0 Summary




- 5.1 A minor common pipistrelle roost was confirmed within Building B5, with potential for infrequent use of other buildings. A Natural Resource Wales EPS derogation licence will be required to allow demolition of structures confirmed to support a roost to proceed. Details of mitigation and enhancement measures are outlined in the Ecological Impact Assessment.


Appendix F.1



Preliminary Roost Assessment Results


Table F.1. Preliminary Roost Assessment Results

Building reference	Description	Description, bat roosting features and evidence	Bat roost suitability and recommendation	Photo
B1	<p>Small single storey school building in constant use. The roof has a gable ended, single pitch structure, with a corrugated green metal roof. The exterior of the building has enclosed metal eaves and Velux windows. A brick extension to the rear has a flat felt roof, plastic edging and soffits on the higher section.</p>	<p><i>External</i> The only feature present on the exterior is a gap above the top of the wall plate, possible access point. This location was fairly cobwebby with no bat droppings present on the exterior. The lower section of roof is concrete filled with no potential access points</p>	<p>Low/moderate <u>Two further roost surveys</u></p>	
B2	<p>Pebble dashed modular cabin classroom with ramped entrance in constant use. Flat felted roof (having been partially replaced at the north end), plastic guttering and Velux windows. External features consist of spray coated board boards and lead flashing. Can see possible modern breathable membrane at the roof edge.</p>	<p><i>External</i> Some damage/ wear and tear on the southern end of the building creating a lifted panel with potential access to the roof. No evidence of bat activity on wall below but pebble dashed texture.</p>	<p>Low <u>One further survey (observed alongside other buildings)</u></p>	
B3	<p>Large single storey UPV panelled school building in constant use. Flat felted roof with plastic barge boards and metal guttering. Some sections being replaced in summer 2018 with false ceiling exposed. The internal roof structure is flat with a modern type roof lining under roof boards.</p>	<p><i>External</i> On the southern and north-western exterior some barge boards were warped, exposing the lining behind, with some potential for access. No droppings below and unsure if the features go anywhere. On the south-western aspect, some exterior wooden panels were missing with felt behind, creating a minor gap low down,</p>	<p>Moderate <u>Two further roost surveys</u></p>	

Building reference	Description	Description, bat roosting features and evidence	Bat roost suitability and recommendation	Photo
		<p>which was cobwebby and likely difficult to access.</p> 		
B4	<p>Large school building with a shallow pitches roof, with lower level hipped sections on the northern aspect. The rear of the building is gable ended, with a pitched porch on the northern aspect. The roof is covered in clay tiles and solar panels on the SE aspect. On the exterior of the building there are UPV soffit boxes, metal guttering and some wooden cladding in good condition</p>	<p><i>External</i></p> <p>Few slightly lifted ridge tiles at north-east hipped corner however these are generally in very good condition and tightly overlapping. Tightly sealed soffits with no access.</p>	<p>Low</p> <p><u><i>One further roost survey / (observed alongside other buildings)</i></u></p>	

Building reference	Description	Description, bat roosting features and evidence	Bat roost suitability and recommendation	Photo
B5	<p>Large old brick school building built in 1923, with a 'w' shaped profile. The three wings of the building all terminate with an end gable at the northern end, with slatted open vents with decorative brick surrounds. There is a number of brick chimney stacks, with lead flashing at the base.</p> <p>The roof consists of thin flat slate tiles, with no felt backing. The tiles are mostly tight and overlapping but some have slipped or missing. There are three ridge tile vents. The building appeared to be made of rendered panels over concrete, with stone window sills and double-glazed windows. Eaves are open, constructed of black painted wooden beams, with modern metal guttering.</p> <p>The internal roof structure is open and uncluttered, not lined, with some floor insulation and limited boarding. Some minimal points of light under tiles were seen, with main access from open vents at gable ends. The roof void is rarely accessed by the school.</p>	<p><i>External</i></p> <p>Some slipped/missing tiles and slatted vents potentially allow access to internal roof voids.</p> <p><i>Internal</i></p> <p>Some points of light visible under tiles, and at open vents at gable ends. A small number of droppings were present near the roof hatch in the northern wing. Numerous droppings were seen in the southern wing, along boards and below brick arch by entrance hatch confirming presence of a roost. Some droppings were dark and appeared fairly recent.</p>	<p>Confirmed Roost</p> <p><u>Three further roost surveys</u></p>	 <p>The photo section contains three images. The top image shows a side view of a yellow-painted wing of the school building with a red brick base and a dark roof. The middle image shows a courtyard view of the building's 'w' shaped profile with a central entrance. The bottom image is an interior view of the roof void, showing a complex wooden truss structure with a central vertical post and diagonal bracing.</p>

Building reference	Description	Description, bat roosting features and evidence	Bat roost suitability and recommendation	Photo
B6	Smaller corrugated metal modular building, well-sealed metal soffits, metal guttering and two wooden / felt porches with some minor damage. UPVC windows.	No evidence or potential for roosting	Negligible	
B7	Brick built library building with felt flat roof, metal guttering and wooden single glazed windows. All tightly sealed	No evidence or potential for roosting. Retained alongside the proposals.	Negligible <i>(observed alongside other buildings)</i>	
B8	<p>Small brick and breeze block built shelter and store room, with a hipped slate tiled roof and clay ridge riles, painted wooden barge boards and metal guttering in poor condition. The eaves were open behind the barge boards with potential access into the locked store room.</p> <p>The internal roof structure is open and not lined, with exposed slate tiles and wooden trusses. A gap is present at the top of the wall into the adjoining</p>	Slate tiles were tightly overlapping with some broken or slipped tiles, but a large portion of the building is open. Mortar was missing at the end of the ridges with gaps at the eaves, potentially into the store room. The building is not heated with limited enclosed areas which limits its potential for roosting.	Low/moderate <i>Two further roost surveys</i>	

Building reference	Description	Description, bat roosting features and evidence	Bat roost suitability and recommendation	Photo
	store room. Swallow nests were present on timber beams.			 A photograph showing the exterior of a building. The top part of the image shows a gabled roof with grey tiles. Below the roofline, there is a horizontal wooden beam painted green. Below the green beam is a wall made of red bricks. To the left, a portion of a blue fence is visible. The sky is overcast and grey.

Appendix F.2

TACP Bat Survey Report

RCT PRIMARIES SURVEY REPORT

Fulcrum Group

August 2021



Fulcrum Group

RCT PRIMARIES SURVEY REPORT

August 2021

**TACP
10 PARK GROVE
CARDIFF
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Project Number: **2378**

Written by: **Samantha Shove**

Revision: **P1**

Revision No.	Date of Revision	Checked by	Date	Approved by	Date
P1	11/08/2021	SS	11/08/2021	PMcC	12/08/2021

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EXECUTIVE SUMMARY

TACP were commissioned to undertake the required emergence and re-entry surveys on three primary school sites within Rhondda Cynon Taf County Borough. This document reports the findings of the bat surveys including categorisation of confirmed roosts, observations of non-roosting bat behaviour on each site, and broad recommendations in terms of implications for future works.

The aims of the report are to:

- Evaluate the presence of roosting bats within each of the buildings with roost potential.
- Estimate the size and status of any bat roosts identified.

Preliminary roost assessments were undertaken for all of the buildings on all three sites by CSA Environmental. These surveys involved external inspections of the buildings in accordance with Collins (2016) with some buildings subject to internal inspections. Evidence of bat activity were found in building B5 on the Pontyclun Primary School site only. However, several potential roost features / access points were identified, and the buildings were assessed as having the potential to support roosting bats to varying degrees.

Dusk emergence and dawn re-entry surveys were conducted by TACP in accordance with the identified roosting potential and in accordance with Collins (2016). A single bat was observed emerging from building B5 on the Pontyclun Primary School site during the third survey. No bats were observed entering or existing any of the other buildings on this site or from any of those on the Penygawsi or Llanilltud Primary School sites.

It was therefore concluded that Pontyclun building B5 is used by roosting bats and a European Protected Species Licence (EPSL) from Natural Resources Wales (NRW) may be required for works to take place, with appropriate working methodologies and mitigation measures. The remaining Pontyclun buildings and those on the Penygawsi or Llanilltud sites would not require an EPSL, but works should be undertaken with consideration that roosting activity may be uncovered.

To demonstrate compliance with the Environment (Wales) Act 2016 and the RCT Nature Recovery Action Plan, ecological enhancements for bats should be included and implemented. Such measures could include:

- Retention of existing access points and roost features.
- Improved access to internal roost features using appropriate access points/panels.
- Creation of bat specific spaces within lofts and other roof voids that are separate from the main spaces.
- Installation of bat tubes, bat panels, and/or bat bricks within refurbished or new buildings.
- Installation of varied bat boxes within mature trees to provide additional roosting opportunities.
- Consideration of reduced security lighting or the use of motion triggered lighting.
- Increased planting with native and species rich mixes within the sites to increase invertebrate availability and therefore improve foraging potential.

Any measures to be included should be discussed with a suitably experienced ecologist and agreed with NRW, even where licences are not considered necessary.

1 INTRODUCTION

1.1 Purpose of this report

- 1.1.1 TACP were commissioned in May 2021 by the Fulcrum Group to undertake the required emergence and re-entry surveys on three primary school sites within Rhondda Cynon Taf County Borough, namely Pontyclun Primary School, Penygawsi Primary School, and Llanilltud Primary School.
- 1.1.2 This document reports the findings of the bat surveys undertaken in June and July 2021 including categorisation of confirmed roosts, observations of non-roosting bat behaviour on each site, and broad recommendations in terms of implications for future works.
- 1.1.3 The aims of this report are to:
- Evaluate the presence of roosting bats within each of the buildings with roost potential.
 - Estimate the size and status of any bat roosts identified.
- 1.1.4 The results of these surveys will be used to inform ecological impact assessments for each of the sites.

1.2 Site location

- 1.2.1 Pontyclun Primary School is located in Pontyclun, Rhondda Cynon Taf (RCT), CF72 9EG. This site is set within the village with connectivity to the wider countryside limited to residential gardens, small parks, and small patches of woodland. The Afon Ely is located to the north, west and south as it meanders around the village, which has wooded banks and connectivity to larger woodland areas to the south. There is also a railway line to the north which also provides potential connectivity.
- 1.2.2 Penygawsi Primary School is located in Llantrisant, RCT, CF72 8PZ. This site is set within the town adjacent to the Ely Valley Road (A4119) with some connectivity to the north and south through small woodland patches and amenity areas. Connectivity to the east is more limited with residential gardens providing the main habitats, while to the west the A4119 and retail park creates a potential partial barrier to bat movements.
- 1.2.3 Llanilltud Primary School is located in Church Village, Pontypridd, RCT, CF38 1DA. This site is set towards the centre of the village with connectivity limited to residential gardens to the west, south and east, although it is noted that there are wooded areas a short distance beyond these to the south of the site. The Nant yr Aran and associated woodland and scrub habitats provide some connectivity to the north, although this is limited by the developments up and downstream that have resulted in sections of the watercourse being culverted.

1.3 Legislation and planning policy

1.3.1 Legislation

Conservation (Natural Habitats &c.) Regulations (Amendment) (EU Exit) 2019

1.3.2 All UK bat species are protected under the Conservation (Natural Habitats &c.) Regulations (Amendment) (EU Exit) 2019. Under regulation 41(1): 'a person who:

- *Deliberately captures, injures, or kills any wild animal of a European Protected Species*
- *Deliberately disturbs wild animal of any such species*
- *Deliberately takes or destroys the eggs of such an animal or*
- *Damages, destroys a breeding site, or resting place of such an animal.*

Is guilty of an offence'.

1.3.3 However, under Regulation 53 (1 & 2), 'the relevant licencing body may grant a European Protected Species (EPS) licence for the purposes specified' below:

- *Scientific or educational purposes*
- *Ringing or marking, or examining any ring or mark on, wild animals*
- *Conserving wild animals or wild plants or introducing them to particular areas*
- *Protecting any zoological or botanical collection*
- *Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment*
- *Preventing the spread of disease or*
- *Preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property to fisheries.*

1.3.4 Under Regulation 53(9) 'the relevant licensing body must not grant a licence under this regulation unless they are satisfied:

- *That there is no satisfactory alternative and*
- *That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.*

1.3.5 The following four UK bat species are also listed on Annex II of Council Directive 92/43/EEC, and are therefore species for which Special Areas of Conservation (SAC) can be designated and are of significant conservation concern:

- *Great horseshoe (*Rhinolophus ferrumequinum*)*
- *Lesser horseshoe (*Rhinolophus hipposideros*)*
- *Bechstein's bat (*Myotis bechsteinii*) and*
- *Barbastelle (*Barbastella barbastellus*).*

Wildlife and Countryside Act 1981 (as amended)

- 1.3.6 Bats are also protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This legislation is less significant since the implementation of the Conservation (Natural Habitats &c.) (Amendment) (EU Exit) Regulations 2019.

The Environmental Damage (Prevention and Remediation) Regulations 2009

- 1.3.7 The Environmental Damage (Prevention and Remediation) Regulations 2009 (as amended) applies in relation to prevention and remediation of environmental damage to protected species, natural habitats, SSSIs, surface and ground water and land. In the case of damage to species and habitats the regulations have the power to make the operators of activities which have caused damage carry out:

- Primary remediation (clean up)
- Complementary remediation (cleaning up an alternative site if the damaged site cannot be fully restored) and
- Compensatory remediation (carry out other measures to provide alternative natural resources to compensate for the time during which the damaged site remains in its damaged state).

Proceeds of Crime Act (2002)

- 1.3.8 On the 7th March 2016 a landmark case was heard where the first Proceeds of Crime Order was made for offences relating to destruction of a bat roost. Iscar Enterprises Ltd. was fined £3000 and ordered to pay £2000 costs. In addition, a Proceeds of Crime Order of £5737 was made as the company had financially benefited from destroying a bat roost without proper surveys, licences, and mitigation.

- 1.3.9 Several other successful prosecutions have been made since this case.

Environment (Wales) Act 2016

- 1.3.10 Section 7 of the Environment (Wales) Act 2016 lists Species of Principal Importance for Nature Conservation in Wales, which include the following bat species:

- Soprano pipistrelle
- Greater horseshoe
- Lesser horseshoe
- Bechstein's bat
- Barbastelle
- Noctule (*Nyctalus noctule*)
- Brown long-eared (*Plecotus auritus*).

- 1.3.11 The Environment Act requires all public authorities, when carrying out their functions in Wales, to seek to “*maintain and enhance biodiversity*” where it is within the proper exercise of their functions. In doing so, public authorities must also seek to “*promote the resilience of ecosystems*”. This applies to a range of public authorities such as the Welsh Ministers, local authorities, public bodies, and statutory undertakers.

1.3.12 Planning Policy

Planning Policy Wales (Edition 10)

1.3.13 Chapter 6 of Planning Policy Wales (Distinctive and Natural Places) covers a range of topics including biodiversity and habitats. Section 6.4 states that ‘*development plan strategies, policies and development proposals must consider the need to:*

- *Support the conservation of biodiversity, in particular the conservation of wildlife and habitats*
- *Ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats*
- *Ensure statutorily and non-statutorily designated sites are properly protected and managed*
- *Safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat and*
- *Secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks’.*

Technical Advice Note (TAN) 5: Nature Conservation and Planning

1.3.14 Technical Advice Notes provide advice to local planning authorities on the application of Planning Policy Wales and legislation to the planning system. TAN 5 provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. In summary the TAN:

- Sets out the key principles of planning for nature conservation
- Provides advice about the preparation and review of development plans, including the relevant statutory requirements
- Addresses nature conservation in development control procedures
- Addresses the conservation of internationally and nationally designated sites and habitats and also local sites
- Provides advice about the conservation of protected and priority species.

Action for Nature: Local Nature Recovery Action Plan for RCT (2008)

1.3.15 Part 2 of the RCT Local Nature Recovery Action Plan includes an action plan for Pipistrelle bat / all bats which acknowledges that there are issues, concerns, and actions required for all bat species known or believed to be present within RCT.

1.3.16 These species include:

- Brown long-eared (*Plecotus auritus*)
- Noctule (*Nyctalus noctula*)
- Natterer’s (*Myotis nattereri*)
- Whiskered (*Myotis mystacinus*)
- Brandt’s (*Myotis brandtii*)
- Daubenton’s (*Myotis daubentonii*)

-
- Serotine (*Eptesicus serotinus*)
 - Leisler's (*Nyctalus leisleri*)
 - Greater Horseshoe (*Rhinolophus ferrumequinum*)
 - Lesser Horseshoe (*Rhinolophus hipposideros*)

2 EXISTING INFORMATION

2.1 Preliminary Roost Assessment and Internal Inspections (2021)

- 2.1.1 CSA Environmental undertook update ecological surveys in April 2021, which included preliminary roost inspections of structures on all three sites. Internal inspections were undertaken of certain buildings only, as described below.
- 2.1.2 All eight buildings on Pontyclun Primary School were externally assessed for bat roost potential with an internal inspection undertaken in the loft spaces of building B5. These surveys identified bat droppings within two of the loft spaces within building B5. The remaining buildings were determined to be of low to moderate potential for roosting bats.
- 2.1.3 All three buildings on Penygawsi Primary School were externally assessed for bat roost potential with an internal inspection undertaken in the small roof void within building B1. These surveys did not identify evidence of bat activity and determined that building B1 had moderate roosting potential. The other two buildings on site were noted to have no obvious features suitable for bats.
- 2.1.4 All three buildings on Llanilltud Primary School were externally assessed for bat roost potential with no internal inspections undertaken. These surveys identified some limited potential within building B1 with the other two buildings on site lacking obvious features suitable for bats.

3 SURVEY METHODS

3.1 Emergence and re-entry survey method

3.1.1 Dusk emergence and dawn re-entry surveys were conducted in accordance with the BCT 2016 survey guidelines at the three sites as specified by the CSA Environmental Update Ecology Surveys Report (April 2021). This report identified the following survey requirements:

- Pontyclun Primary School – 3 roost surveys on building B5, 2 roost surveys on buildings B1, B3, B6, B7, and B8.
- Penygawsi Primary School – 2 roost surveys on building B1.
- Llanilltud Primary School – 1 roost survey on building B1.

3.1.2 The surveyor locations were identified on the CSA Environmental Habitats Plans, as included in Appendix A.

3.1.3 Dates on which the surveys were conducted, weather conditions and other survey details are shown in Table 3.1 below:

Table 3.1 – Dusk emergence and dawn re-entry survey details

Survey Site	Building	Date	Period	Time	Weather Conditions
Pontyclun	B1, B3	21/06/2021	Dusk	21:35 - 23:35	14°C (start) 12°C (end), gentle breeze with occasional moderate gusts, overcast, short period of spotting rain 21:59 to 22:09
	B5, B6, B7, B8	22/06/2021	Dusk	21:20 - 23:20	15°C (start) 11°C (end), light to gentle breeze, partly cloudy
	B6, B7, B8	08/07/2021	Dawn	03:15 - 05:15	13°C (start) 12°C (end), light breeze, partly cloudy
	B5	09/07/2021	Dawn	03:15 - 05:15	14°C (start) 12°C (end), light breeze, partly cloudy
	B5	19/07/2021	Dusk	21:05 - 23:05	24°C (start) 20°C (end), clear skies, calm
	B1, B3	21/07/2021	Dawn	03:35 - 05:35	17°C (start) 16°C (end), clear skies, calm
Penygawsi	B1	07/06/2021	Dusk	21:15 - 23:15	14°C (start) 13°C (end), cloudy, gentle to moderate breeze
	B1	29/06/2021	Dawn	03:15 - 05:15	14°C (start) 13°C (end), overcast, light breeze
Llanilltud	B1	24/06/2021	Dusk	21:20 - 23:20	16°C (start) 15°C (end), overcast, moderate breeze, brief light rain at 21:56 to 22:00 and at 22:03 to 22:04

-
- 3.1.4 Surveyors with bat detectors were positioned at the identified locations to observe bats potentially entering or exiting the buildings.
- 3.1.5 The dusk emergence surveys commenced fifteen minutes before sunset and continued for an hour and forty-five minutes after dusk. The dawn re-entry surveys commenced an hour and forty-five minutes before dawn and continued for fifteen minutes after sunrise.
- 3.1.6 Where necessary, bat recordings were later analysed using BatSound software and species identified with reference to Russ, (2012) and Middleton et. al. (2014).
- 3.1.7 Equipment used
- Head torches
 - Hand-held detectors: Echo Meter 2, Elekon BatScanner, and Pettersson D-240X Bat Detector
 - Additional Roland recorders as required

3.2 Surveyor information

- 3.2.1 Surveys were led and conducted by Samantha Shove (BSc, MCIEEM, CEcol, CEnv) who has over 15 years' experience conducting bat surveys on a wide variety of projects including roost emergence/re-entry of buildings, other structures, and trees, walked activity surveys, and stationary crossing point activity surveys. Sam also has significant experience in managing survey requirements and programmes, organising appropriate resources, and ensuring high standards in data recording.
- 3.2.2 Sam was assisted by the following surveyors:
- Matt Levan
 - Marie Pugh
 - George Mee
 - Fiona Day
 - Peter McComiskey
 - Hilary Davies
 - Yolanda Li
- 3.2.3 Additional recording equipment was also deployed for later analysis to confirm species identification and clarify any calls that could not be identified in the field.

3.3 Constraints and Limitations

- 3.3.1 As noted in Table 3.1 above, the weather conditions were on the whole suitable for undertaking surveys. However, short periods of light rain did occur during two of the surveys. Given the nature of this rainfall and the short duration of occurrence this is not considered to be a significant limitation or to have had an effect on the results obtained.
- 3.3.2 Security lighting was on during some of the surveys at the Pontyclun Primary School, particularly in relation to buildings B3, B5, and B7, and at the Llanilltud Primary School. Street lighting was also on during the dusk survey on building B1 at Pontyclun Primary School, although this was noted to be off during the dawn survey. This lighting would reduce the roosting potential even for less light sensitive species such as Common and Soprano Pipistrelle.
- 3.3.3 Lighting was present at Penygawsi Primary School although this did not reflect on the building itself as was more focused on adjacent areas, therefore is not considered a significant limitation on the survey results.

4 SURVEY RESULTS

4.1 Pontyclun Primary School Survey Results

4.1.1 The results of the three surveys on building B5 are shown in Table 4.1 below.

Table 4.1 – Results of the surveys on building B5

Date	Building	Roosting	Species - Activity	
22/06/2021	B5	None	Pipistrelle	Commuting
			Soprano Pipistrelle	Commuting, foraging
			Noctule	Commuting
09/07/2021	B5	None	Pipistrelle	Commuting
19/07/2021	B5	Common Pipistrelle Emerged from central grille into the loft space (survey location 2)	Common Pipistrelle	Commuting, foraging
			Noctule	Commuting
			Soprano Pipistrelle	Commuting, foraging

4.1.2 The results confirm the presence of an active roost with building B5 with the emergence of a Common Pipistrelle from the central grid at location 2. Given the low number of bats identified and the limited evidence of roosting activity identified during the previous CSA internal inspections and the surveys detailed above, it is considered that building B5 constitutes a night roost for Common Pipistrelle bats.

4.1.3 It should also be noted that given the presence of foraging and commuting Soprano Pipistrelle on site, this species may also utilise building B5 as a night roost.

4.1.4 Noctule bats are primarily tree dwellers and are unlikely to utilise any of the buildings on site for roosting purposes, although this should not be ruled out completely.

4.1.5 The results of the two surveys on buildings B1, B3, B6, B7, and B8 are shown in Table 4.2 below.

Table 4.2 – Results of the surveys on buildings B1, B3, B6, B7, and B8

Date	Building	Roosting	Species - Activity	
21/06/2021	B1	None	Soprano Pipistrelle	Commuting
	B3	None	Common Pipistrelle	Commuting, foraging
			Soprano Pipistrelle	Commuting, foraging
22/06/2021	B6	None	Common Pipistrelle	Commuting, foraging
	B7	None	Noctule	Commuting
			Soprano Pipistrelle	Commuting
B8	None	Common Pipistrelle	Commuting, foraging	
08/07/2021	B6	None	None	None
	B7	None	None	None
	B8	None	None	None
21/07/2021	B1	None	Common Pipistrelle	Commuting, foraging
			Soprano Pipistrelle	Commuting, foraging
	B3	None	Pipistrelle	Commuting
			Common Pipistrelle	Commuting

4.1.6 The surveys did not identify any roosting activity within buildings B1, B3, B6, B7, or B8 although it should be noted that infrequent roosting behaviour can be difficult to identify. The confirmation of a night roost in building B5 and the level of foraging and commuting activity recorded on site, along with the roosting potential identified within these structures, suggests that these structures could be used in a similar manner on an infrequent basis.

4.2 Penygawsi Primary School Survey Results

4.2.1 The results of the two surveys on building B1 are shown in Table 4.3 below.

Table 4.3 – Results of the surveys on building B1

Date	Roosting	Species - Activity	
07/06/2021	None	Common Pipistrelle	Commuting, foraging
		Soprano Pipistrelle	Commuting, foraging
		Noctule	Foraging
29/06/2021	None	Soprano Pipistrelle	Commuting, foraging
		Common Pipistrelle	Commuting, foraging
		Noctule	Foraging

4.2.2 The surveys did not identify any roosting activity within building B1. While it is noted that infrequent roosting behaviour can be difficult to identify, given the low level of wider activity, it is considered unlikely that the building is used for roosting purposes.

4.3 Llanilltud Primary School Survey Results

4.3.1 The results of the single survey on building B1 are shown in Table 4.4 below.

Table 4.4 – Results of the survey on building B1

Date	Roosting	Species - Activity	
24/06/2021	None	Common Pipistrelle	Commuting, foraging

4.3.2 The surveys did not identify any roosting activity within building B1. While it is noted that infrequent roosting behaviour can be difficult to identify, given the low level of wider activity, it is considered unlikely that the building is used for roosting purposes.

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1.1 The preliminary roost assessments identified bat roost potential within all eight of the buildings on the Pontyclun Primary School site, and within single buildings on the Penygawsi and Llanilltud Primary School sites.
- 5.1.2 A likely Common Pipistrelle night roost was identified within building B5 on the Pontyclun Primary School site. Therefore, any works that may directly or indirectly affect this roost or use of this roost would need to be subject to ecological assessment and may require a European Protected Species (EPS) development licence from Natural Resources Wales (NRW). This would quantify and assess the likely impacts of identified works, detail the necessary avoidance and mitigations measures, and set out the necessary methodologies to be applied.
- 5.1.3 As there was no evidence to show that buildings B1, B3, B6, B7 or B8 on the Pontyclun Primary School site, building B1 on the Penygawsi Primary School site or building B1 on the Llanilltud Primary School site were being used by roosting bats no mitigation is anticipated. However, any works affecting these structures should be considerate of the roosting potential and should evidence of roosting bats be found those undertaking any such works should contact an ecologist with an NRW bat survey licence for advice.
- 5.1.4 To demonstrate compliance with the Environment (Wales) Act 2016 and the RCT Nature Recovery Action Plan, it is recommended that appropriate ecological enhancements for bats are included and implemented as part of any proposed works. Such measures could include:
- Retention of existing access points and roost features.
 - Improved access to internal roost features using appropriate access points/panels.
 - Creation of bat specific spaces within lofts and other roof voids that are separate from the main spaces.
 - Installation of bat tubes, bat panels, and/or bat bricks within refurbished or new buildings.
 - Installation of varied bat boxes within mature trees to provide additional roosting opportunities.
 - Consideration of reduced security lighting or the use of motion triggered lighting.
 - Increased planting with native and species rich mixes within the sites to increase invertebrate availability and therefore improve foraging potential.
- 5.1.5 Any measures to be included should be discussed with a suitably experienced ecologist and agreed with NRW, even where licences are not considered necessary.

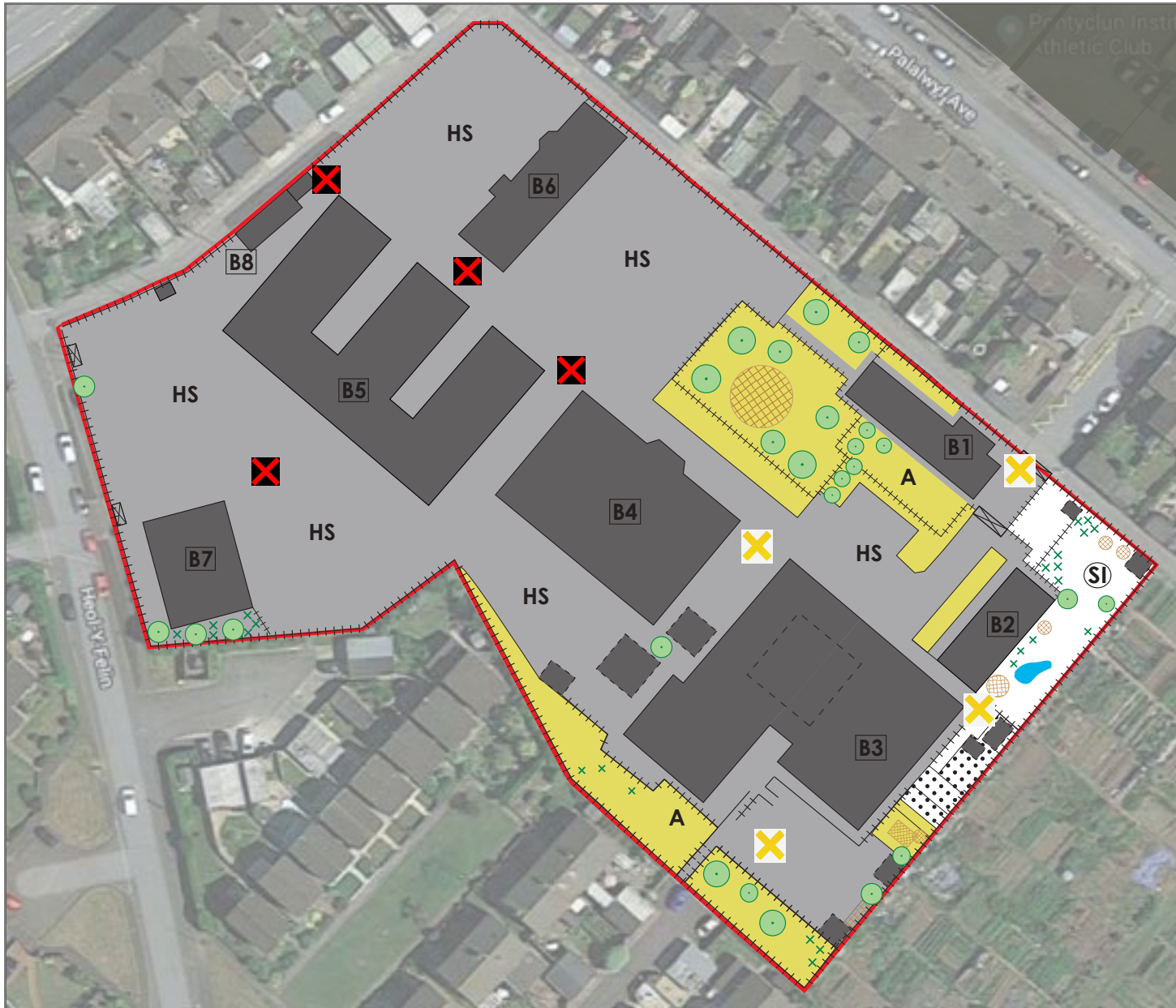
6 REFERENCES

Collins, J. (ed) (2016). *Bat Surveys for Professional Ecologist: Good Practice Guidelines, (3rd edition)*. The Bat Conservation Trust, London ISBN-13 978-1-872745-96-1

Middleton, N., Froud, A. & French, K (2014). *Social Calls of the Bats of Britain and Ireland*. Pelagic Publishing ISBN 978-1-907807-97-8

Russ, J. (2012). *British Bat Calls – A Guide to Species Identification*. Pelagic Publishing ISBN 978-1-907807-25-1

APPENDIX A – BAT SURVEY MAPS















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Project Pontyclun Primary School, Pontyclun
Drawing Title Habitats Plan
Client HSP Consulting

Date August 2019 **Drawing No.** CSA/4388/100
Scale Refer to scale **Rev** -
Drawn HG **Checked** CT















-  Site boundary
-  Amenity grassland
-  Woodland
-  Semi-improved grassland
-  Dense scrub
-  Tall ruderal scrub
-  Ornamental planting
-  Tree
-  Scattered scrub
-  Non-native hedge
-  Building
-  Building number
-  Hardstanding
-  Fence
-  Gate

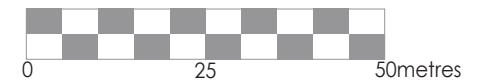


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Project	Penygawsi Primary School, Pontyclun	Date	August 2019	Drawing No.	CSA/4387/100
Drawing Title	Habitats Plan	Scale	Refer to scale	Rev	-
Client	HSP Consulting	Drawn	HG	Checked	CT



-  Site boundary
-  Amenity grassland
-  Scattered scrub
-  Hedgerow
-  Tree
-  Ancient woodland
-  Pond
-  Hard standing
-  Fence
-  Gate
-  Building
-  Building reference number



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Project Llaniltud Faerdref Primary School, Pontypridd
Drawing Title Habitats plan
Client HSP Consulting

Date August 2019 **Drawing No.** CSA/4386/100
Scale Refer to scale **Rev** -
Drawn MS **Checked** CT

Appendix G

Great Crested Newt eDNA Analysis report (ADAS)

Client: Cerian Thomas,
CSA Environmental


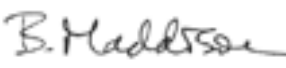


ADAS
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Tel: 01159 516747
Email: Helen.Rees@adas.co.uk

www.adas.uk

Sample ID: ADAS-1507 Condition on Receipt: Good Volume: Passed
Client Identifier: p1 pontyclun
4388 Description: pond water samples in preservative
Date of Receipt: 21/05/2021 Material Tested: eDNA from pond water samples

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	25/05/2021
Degradation Control [§]	Within Limits	Real Time PCR	25/05/2021
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	25/05/2021
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁻⁴ ng/μL) [#]	4 of 4	Real Time PCR	As above for GCN
Report Prepared by:	Dr Helen Rees	Report Issued by:	Dr Ben Maddison
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	25/05/2021	Date of issue:	25/05/2021

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

* If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.

[†] Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

[§] No degradation is expected within time frame of kit preparation, sample collection and analysis.

[#] Additional positive controls (10⁻¹, 10⁻², 10⁻³ ng/μL) are also routinely run, results not shown here.

Appendix 1: Interpretation of results

Sample Condition

Upon sample receipt we score your samples according to quality: good, low sediment, medium sediment, high sediment, white precipitate, and presence of algae.

There are three reasons as to why sediment should be avoided:

1. It is possible for DNA to persist within the sediment for longer than it would if it was floating in the water which could lead to a false positive result i.e. in this case GCN not recently present but present a long time ago
2. In some cases sediment can cause inhibition of the PCR analysis used to detect GCN eDNA within samples which could lead to an indeterminate result.
3. In some cases sediment can interfere with the DNA extraction procedure resulting in poor recovery of the eDNA which in turn can lead to an indeterminate result.

Algae can make the DNA extraction more difficult to perform so if it can be avoided then this is helpful.

Sometimes samples contain a white precipitate which we have found makes the recovery of eDNA very difficult. This precipitate can be present in such high amounts that it interferes with the eDNA extraction process meaning that we cannot recover the degradation control (nor most likely the eDNA itself) at sufficient levels for the control to be within the acceptable limits for the assay, therefore we have to classify these type of samples as indeterminate.

What do my results mean?

A positive result means that great crested newts are present in the water or have been present in the water in the recent past (eDNA degrades over around 7-21 days).

A negative result means that DNA from the great crested newt has not been detected in your sample.

On occasion an inconclusive result will be issued. This occurs where the DNA from the great crested newt has not been detected but the controls have indicated that either: the sample has been degraded and/or the eDNA was not fully extracted (poor recovery); or the PCR inhibited in some way. This may be due to the water chemistry or may be due to the presence of high levels of sediment in samples which can interfere with the DNA extraction process. A re-test could be performed but a fresh sample would need to be obtained. We have successfully performed re-tests on samples which have had high sediment content on the first collection and low sediment content (through improved sample collection) on the re-test. If water chemistry was the cause of the indeterminate then a re-test would most likely also return an inconclusive result.

The results will be recorded as indeterminate if the GCN result is negative and the degradation result is recorded as:

1. evidence of decay - meaning that the degradation control was outside of accepted limits
2. evidence of degradation or residual inhibition - meaning that the degradation control was outside of accepted limits but that this could have been due to inhibitors not being removed sufficiently by the dilution of inhibited samples (according to the technical advice note)



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