



**CARDIFF COUNCIL**

**FAIRWATER SOCIAL CLUB**

**PRELIMINARY ECOLOGICAL APPRAISAL REPORT**

**MAY 2021**

**DATE ISSUED:** MAY 2021  
**JOB NUMBER:** CA11839  
**REPORT NUMBER:** 002  
**VERSION:** V1.0  
**STATUS:** FINAL

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**MAY 2021**

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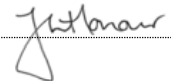


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ENERGY AND CLIMATE CHANGE  
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WASTE RESOURCE MANAGEMENT

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Appendix 1	Summary of Legislative Framework and Planning Policy
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DRAWINGS	TITLE	SCALE
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CA11839/002	Habitat Plan	1:750@A3
CA11839/004	Waterbody Location Plan	1:5,000@A3
CA11839/005	PGLRA Results	1:500@A3

## EXECUTIVE SUMMARY

Wardell Armstrong LLP (WA) was commissioned by Cardiff Council to carry out a Preliminary Ecological Appraisal (PEA), which included a Preliminary Ground Level Roost Assessment (PGLRA) for bats, at Fairwater Social and Athletic Club, 22 Plas-Mawr Rd, Cardiff CF5 3XH, hereafter referred to as the 'site'. The site is centred on approximate National Grid Reference ST 13861 77838.

At the time of writing detailed development proposals are unknown, however it is understood that this PEA is to support and inform the site redevelopment project which may include residential dwellings.

The 0.6 hectare (ha) site comprises mainly of hardstanding and poor semi-improved grassland with semi-natural woodland, broadleaved scattered trees, dense scrub, and two buildings including the social club and an unused bungalow. The site is surrounded by a residential environment to the north, south and west. To the east is Fairwater park. A small section of the Fairwater Park Site of Importance for Nature Conservation (SINC) is within the site boundary.

Receptors which the PEA has identified may be subject to adverse effects in the absence of mitigation are as follows: statutory designation (Hermit Wood Local Nature Reserve), non-statutory designations (including Fairwater Park SINC, and River Ely SINC) broadleaved scattered trees, semi-natural broadleaved woodland, poor semi-improved grassland, bats, breeding birds, great crested newts (GCN) and other amphibians, common reptiles, European hedgehog, and invertebrates.

Additional protected species surveys recommended prior to submission of a planning application include bat emergence/re-entry surveys of buildings and trees, and bat activity surveys.

Bat surveys emergence/re-entry surveys on the buildings were undertaken in July 2020. No bats were observed emerging or re-entering during the surveys. The methodology and survey results are presented in the Bat Survey Report '*Fairwater Social Club, Bat Report – Building Surveys*' prepared by WA dated December 2020.

The PGLRA identified two trees with moderate potential and twelve with low suitability to support roosting bats. Any work affecting moderate suitability trees will require further survey, and any work affecting trees of low suitability will require soft felling under supervision of a suitably qualified ecologist.



Mitigation measures are set out in Section 4 for breeding birds, GCN, common reptiles and hedgehogs.

There are opportunities to enhance each development for biodiversity to deliver a biodiversity net gain. These include appropriate management of existing valuable habitat within the site, creation of new habitats through a landscape scheme for the site and the provision of homes for wildlife. Opportunities for ecological enhancements are recommended in Section 5 of this report.

Additionally, the results of further protected species surveys and evaluations should be considered within an Ecological Impact Assessment (EclA) report, in line with standard industry practice (CIEEM 2018). This report should include a formal assessment of impacts and will be suitable to fully inform the planning application.

## **1 INTRODUCTION**

### **1.1 Terms of Reference**

1.1.1 Wardell Armstrong LLP (WA) has been commissioned by Cardiff Council to undertake a Preliminary Ecological Appraisal (PEA) on an area of land (hereafter referred to as the 'site') known as Fairwater Social and Athletic Club, 22 Plas-Mawr Rd, Cardiff CF5 3XH. This report has been produced with reference to current guidelines for preliminary ecological appraisal (Chartered Institute of Ecology and Environmental Management (CIEEM, 2017) and British Standard (BS) 42020:2013 (BSI, 2013) which involves the evaluation of potential ecological constraints based on Extended Phase 1 (Joint Nature Conservation Committee (JNCC, 2010)) survey data and background desk study.

### **1.2 Scope of Report**

1.2.1 The purpose of the PEAR is to satisfy the requirements of Planning Policy Wales (PPW 11) 2021, identifying the likely presence of ecological receptors within or near the site that could be subject to adverse effects arising from the proposed development. Certain species, habitats and nature conservation sites receive legislative protection which is detailed fully within Appendix 1.

1.2.2 This report also seeks to identify any requirement for further specialist survey where the initial assessment cannot be relied upon to adequately determine presence or reliably infer absence of protected species/taxa. An indicative assessment of potential adverse effects is provided, although this is not a substitute for full Ecological Impact Assessment (CIEEM, 2019).

1.2.3 Provisional mitigation measures and enhancement opportunities are also discussed, where appropriate.

1.2.4 Literature references are provided in Section 7.

### **1.3 Description of Development**

1.3.1 The Fairwater Social club and bungalow have remained unused for several years and are surplus to requirements. Therefore, it is proposed that these buildings are demolished, and associated grounds are re-developed.

### **1.4 Site Context**

1.4.1 The site is centred on approximate National Grid Reference ST 13861 77838, as shown on Drawing CA11839/001A (Site Location Plan).

- 1.4.2 The 0.6 hectare (ha) site comprises mainly of hardstanding with poor-semi-improved grassland, broadleaved scattered trees and dense scrub. The social club building is located to the east of the site, with an unused bungalow located to the north of the site. A small section of broadleaved woodland is located in the south-east corner of the site and is connected to the wider woodland within Fairwater park, bounding the east of the site. Residential housing surrounds the site on all remaining sides. The main access road is off Plas-Mawr Road, in the south western corner of the site.

## **2 METHODOLOGY**

### **2.1 Desk Study**

2.1.1 The desk study was informed by a review of existing available information provided by South East Wales Biological Records Centre (SEWBRc) in August 2020 for a 2km search radius from the site boundary.

2.1.2 Specific information was sought for:

- Statutory designated sites;
- Locally designated (non-statutory) sites;
- Ancient woodland<sup>1</sup>;
- Legally protected species;
- Invasive species; and
- Section 7 Priority Habitats and Species.

2.1.3 The Multi Agency Geographic Information for the Countryside (MAGIC<sup>2</sup>) website was utilised to gather data and Ordnance Survey (OS) mapping were also used to gain contextual habitat information and identify aquatic features within 500m of the site.

2.1.4 Priority species and habitats agreed under the UK BAP are those which were identified as being the most threatened and requiring conservation action. The UK BAP was superseded by 'The UK Post-2010 Biodiversity Framework' which was published in July 2012 with work focusing at the country level, but the list of priority habitats and species remain the basis for the biodiversity work in the countries. Therefore, habitats and species listed under Section 7 of the Environment (Wales) Act (2016) (hereafter referred to as Section 7) were reviewed as they consider habitats and species of key significance to sustain and improve biodiversity in relation to Wales.

### **2.2 Extended Phase 1 Habitat Survey**

2.2.1 A WA ecologist carried out an Extended Phase 1 Habitat Survey of the site on 3<sup>rd</sup> August 2020.

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<sup>1</sup> As defined by Natural England in their Inventory of Ancient Woodlands <http://www.gis.naturalengland.org.uk/pubs/gis/tech> aw.htm

<sup>2</sup> Multi-Agency Geographic Information for the Countryside: [www.magic.gov.uk](http://www.magic.gov.uk) [Accessed August 2020].

- 2.2.2 The survey broadly followed the techniques outlined in the '*Handbook for Phase 1 Habitat Survey*' (Joint Nature Conservation Committee, (2010), 2016,) and the '*Guidelines for Baseline Ecological Assessment*' (Institute of Environmental Assessment, 1995).
- 2.2.3 Each of the main habitats was classified according to the relevant criteria including vegetation composition expressed according to the DAFOR<sup>3</sup> system. In addition to mapping and description of habitats, incidental observations of protected and/or notable species and the potential for such species to occur on site (and in the surrounding landscape where relevant) were also recorded for mapping and data collection. Specific habitat features are mapped on Drawing Number CA11839/002 (Habitat Plan).
- 2.2.4 The presence of a legally protected species and Section 7 listed species is a material consideration for a local planning authority dealing with a planning application for any development that would be likely to result in harm to the species or its habitat (PPW, 2021). Therefore, preliminary investigations were undertaken during the Extended Phase 1 Habitat survey in respect of the potential presence of a legally protected species and/or Section 7 species. An overview of species protection and legislation is provided in Appendix 1.
- 2.2.5 In addition to the mapping and description of habitats, incidental observations of protected and /or Section 7 species and the potential for such species to occur on site (and in the surrounding landscape where relevant) were also noted.

### **2.3 Preliminary Ground Level Roost Assessment**

- 2.3.1 A Preliminary Ground Level Roost Assessment (PGLRA) was undertaken on 3<sup>rd</sup> August 2020 by a suitably experienced ecologist. The aim of this survey was to assess the trees on the sites potential to support roosting bats, search for evidence of roosting bats and establish the requirement for further surveys.
- 2.3.2 Suitable features such as cracks in branches, loose bark, woodpecker holes, thick ivy and any gaps that may provide roosting opportunities were identified. In addition, field signs such as spider webs over crevices, urine stains, grease stains, droppings, feeding remains and dead or living bats were recorded. Equipment used included a torch and binoculars.

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<sup>3</sup> D – Dominant, A – Abundant, F – Frequent, O- Occasional, R-Rare.

2.3.3 The trees were categorised using the assessment criteria in Table 4.1 of the 3rd ed. of the BCT Guidelines (Collins, 2016):

- **High:** A tree 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 habitats.
- **Moderate:** A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitats, but unlikely to support a roost of high conservation status.
- **Low:** A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
- **Negligible:** Tree with no features to support roosting bats.

## 2.4 Nomenclature

2.4.1 Vascular plant names follow '*New Flora of the British Isles*' (Stace, 2019)<sup>4</sup> with vernacular names as provided in the Botanical Society of the British Isles website (BSBI, 2013)<sup>5</sup>. The common and scientific name of species/taxa is provided when first mentioned in the text, with only the vernacular name referred to thereafter.

## 2.5 Assessment Limitations

2.5.1 Ecological surveys are limited by factors that affect the presence of plants and animals such as time of year, weather, migration patterns and behaviour. The survey was undertaken in August and therefore is within the optimum recommended survey period for habitat surveys (April to September). The report is not designed, nor is it required to present a complete inventory of flora/fauna however a Phase 1 Habitat Survey at this time can still provide useful data on broad habitat types.

2.5.2 The absence of desk study records cannot be relied upon to determine absence of a species/habitat. Often, the absence of records is a result of under-recording within the given search area.

2.5.3 During the PGLRA survey, trees were assessed from the ground with the aid of torches and high magnification, close focusing binoculars. Surveys were carried out during the

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<sup>4</sup> Stace, C. A., (2019) *New Flora of the British Isles*. [4th Edition] C&M Floristics.

<sup>5</sup> <http://rbg-web2.rbge.org.uk/BSBI/intro.php>

summer when trees had full foliage preventing a clear view of the tree and therefore potentially some primary roost features may have been missed.

## **2.6 Quality Assurance & Environmental Management**

- 2.6.1 The surveys and assessments have been overseen by and the report checked and verified by a Member of CIEEM, who is bound by its code of professional conduct. All surveys and assessments have been undertaken with reference to the recommendations given in BS 42020, and as stated within specialist guidance, as appropriate and referenced separately.

### **3 RESULTS AND EVALUATION**

#### **3.1 Statutory and Non-Statutory Designated Sites**

- 3.1.1 The desk study results for designated sites within 2km of the site are evaluated in Table 1 below.
- 3.1.2 Sites which are considered potentially sensitive to the proposed development by virtue of the sensitivity of supported species or habitat assemblages, the distance/ecological connectivity to the site and the nature of the perceived impacts are highlighted in bold text and are discussed in the final sections of the report.
- 3.1.3 Sites for which potential adverse effects are not anticipated are excluded from further assessment.
- 3.1.4 There is one statutory Local Nature Reserve and 15 non-statutory designated sites located within 2km of the site. The data search also identified areas of Ancient Semi-Natural Woodland and Restored Ancient Woodland sites.



**Table 1 – Designated Sites Evaluation**

Site Name and Status <sup>6</sup>	Reason for Designation	Approximate Distance and Location from the Site	Potential Adverse Effects
<b>Statutory Sites</b>			
<b>Hermit Wood (LNR)</b>	The designating features for this site are unknown.	Approximately 1.6km north	Possible – The current proposal for the site is unknown, however should the development increase the local population size, consideration must be given to the recreational impacts upon the LNR.
<b>Non-Statutory Sites</b>			
<b>Fairwater Park (SINC)</b>	Fairwater Park SINC is designated for two discrete areas set in Fairwater Park, an area of lowland mixed deciduous alder <i>Alnus glutinosa</i> woodland, and a pond at the centre of the park which supports locally rare plant species ivy-leaved duckweed <i>Lemna trisulca</i> , Lenormand's water crowfoot <i>Ranunculus aquatilis</i> and spiked water-milfoil <i>Myriophyllum spicatum</i> , together with GCN. Rough grassland and scrub surrounding the pond provide terrestrial habitat for the GCN.	A section of the designated woodland area is directly within the site boundary. The rest of the woodland designation borders a potential ditch or watercourse which stretches northeast and southeast of the site boundary. The designated pond is approximately 353m to the east of the site.	Yes – The proposed development could potentially have a significant adverse effect on the qualifying features of this designation during the construction phase from potential loss of woodland habitat and from dust emissions. Additionally, increased recreational pressure during the operational phase and emissions to the air

<sup>6</sup> **LNR** – Local Nature Reserve and **SINC** – Site of Importance for Nature Conservation, **LNR** – Local Nature Reserve,

Site Name and Status <sup>6</sup>	Reason for Designation	Approximate Distance and Location from the Site	Potential Adverse Effects
Former Llantrisant No.1 Branch Line (SINC)	Former Llantrisant No.1 Branch Line SINC is 17.87 ha abandoned Great Western Railway (GWR) branch line surrounded primarily by ash <i>Fraxinus excelsior</i> woodland. The surrounding habitat has areas of waterlogging showing marshy characteristics. The branch line provides a valuable corridor allowing the dispersal of plants and animals throughout the many habitats that it connects.	Approximately 0.61km to the north of the site.	Possible – Recreational pressures - should there be public access
River Ely (SINC)	River Ely SINC is designated as an example of a stretch of main river where the riverbed and banks remains comparatively unmodified and the water is not grossly polluted by long-term sources.  The River Ely SINC is connected to the Ely Valley SSSI to the west, the first kilometre of the Ely entering Cardiff is designated as a SSSI for populations of monk's-hood.  The river is important for migratory fish, otters, wildfowl, and bankside vegetation and acts as a major wildlife corridor.	Approximately 0.72m south of the site.  Approximate central grid reference of nearest point to the site ST13937707.	Yes – Potential adverse effects from pollution events entering the designation via the stream within Fairwater park, adjacent to the southeast of the site.
Glan Ely Wood (SINC)	Glan Ely Wood SINC comprises of 2.42 ha of lowland mixed deciduous woodland. The ground flora of the site, such as goldilocks buttercup <i>Ranunculus auricomus</i> , scaly male fern <i>Dryopteris affinis</i> and wood-sedge <i>Carex depauperata</i> , indicates that it once supported ancient semi-natural woodland.  The River Ely SINC is situated along the southern boundary of Glan Ely Wood. Monks'-hood <i>Aconitum napellus</i> is present,	Approximately 0.76km south-west of the site. Approximate central grid reference ST 1312 7730.	Possible – Recreational pressures - should there be public access

Site Name and Status <sup>6</sup>	Reason for Designation	Approximate Distance and Location from the Site	Potential Adverse Effects
	which is also a feature of the banks of the River Ely SSSI (approximately 2.1km south-west of the site).		
Riverside Wood (SINC)	Riverside Wood SINC comprises of 1.68 ha of lowland mixed deciduous woodland. The ground flora of the site, such as dog's mercury <i>Mercurialis perennis</i> , sanicle <i>Sanicula europaea</i> and wood speedwell <i>Veronica montana</i> are indicative of ancient semi-natural woodland. The River Ely SINC is bounded to the north of Riverside Wood SINC, Monk's-hood has also been recorded within the SINC.	Approximately 0.8km to the south and south-west of the site, bordering a section of River Ely SINC. Approximate central grid reference ST13637688.	Possible - recreational pressures - should there be public access
Waterhall Plantation and Pond (SINC)	Waterhall plantation and pond comprises 8.99 ha of beech <i>Fagus sylvatica</i> and oak <i>Quercus</i> species / alder woodland and larch <i>Latrica</i> species plantation, with a disused railway, stream and ponds, rough grassland and marsh. Wood goldilocks <i>Ranunculus auricomus</i> and broadleaved helleborine <i>Epipactis helleborine</i> have been recorded within the woodland, great crested newts and slow worms have been recorded in the past.	Approximately 0.82km north-west of the site. Approximate central grid reference ST12777865.	Possible - recreational pressures - should there be public access.
Plymouth Great Wood (SINC)	Plymouth Great Wood SINC comprises of 25.37 hectares of even-aged oak species <i>Quercus</i> sp. / ash <i>Fraxinus excelsior</i> , and beech <i>Fagus sylvatica</i> planted ancient semi-natural woodland. A diverse range of woodland and damp habitat plant species have been recorded within this woodland including monk's-hood, alternate-leaved golden-saxifrage	Approximately 0.96km to the south-west of the site. Approximate central grid reference ST12757697.	Possible - recreational pressures- should there be public access.

Site Name and Status <sup>6</sup>	Reason for Designation	Approximate Distance and Location from the Site	Potential Adverse Effects
	<i>Chrysosplenium oppositifolium</i> , meadow saxifrage <i>Saxifraga granulata</i> and common polypody <i>Polypodium vulgare</i> .		
Coedbychan (SINC)	Coedbychan SINC is designated for its area of beech plantation with occasional oak sp, and sweet chestnut <i>Castanea sativa</i> . The ground flora of some areas of the site, such as bluebell, common dog-violet <i>Viola riviniana</i> , dog's mercury and goldilocks buttercup, indicates ancient semi-natural woodland.	Approximately 1km to the west of the site. Approximate central grid reference ST12597759.	Possible - recreational pressures-should there be public access.
River Taff SINC.	All major rivers qualify as SINC habitat. This particular river is known for its migratory fish species, presence of otter, and rich bankside vegetation.	Approximately 1.2km to the north-east of the site. Approximate GR ST14747877.	No – Already public access along the river therefore access is managed.
Coed-y-Gof SINC.	The designation has lowland mixed deciduous woodland priority habitat. The SINC is an isolated woodland block (approximately 14.4ha) surrounded by arable land with former Llantrisant No. 1 branch line along the southern boundary. There are small remnant areas of ancient semi-natural woodland and associated ground flora including Dog's Mercury, primrose <i>Primula vulgaris</i> and wood speedwell.	Approximately 1.5km to the north-west of the site. Approximate GR ST12397906.	Possible - recreational pressures-should there be public access.
Radyr Community Woodlands SINC.	The SINC is designated for semi-natural woodland (approximately 6.3ha) on steep slopes of the River Taff with diverse ground flora, the site included rough grassland and species-rich ponds. The middle section of the SINC is designated as Hermit Wood LNR.	Approximately 1.5km to the north of the site. Approximate GR ST13657975.	Possible - recreational pressures-should there be public access.


Site Name and Status <sup>6</sup>	Reason for Designation	Approximate Distance and Location from the Site	Potential Adverse Effects
Hailey Park SINC.	Hailey Park SINC is designated for neutral semi-improved grassland, marshy grassland and invertebrates. The SINC is an area of grassland (approximately 8.2ha) on the eastern banks of the River Taff, the SINC contains lowland meadow, purple moor grass and rush pasture priority habitat. Protected species recorded include grass snake <i>Natrix natrix</i> , slow worm <i>Anguis fragilis</i> , amphibians such as common frog <i>Rana temporaria</i> and common toad <i>Bufo bufo</i> , redshank <i>Tringa tetanus</i> and sand martin <i>Riparia riparia</i>	Approximately 1.6km north of the site. Approximate GR ST14277956.	Possible - recreational pressures-should there be public access.
Pentrebane Cottages Ponds SINC	The site has been designated for two ponds in open pasture which support populations of great crested newts <i>Triturus cristatus</i> and common frog.	Approximately 1.9km to the north-west of the site. Approximate GR ST12107879.	Possible - recreational pressures-should there be public access.
Radyr Cricket Grounds and Fields SINC.	This site has been designated for its waxcap assemblages.	Approximately 2km north of the site. Approximate GR ST13998002.	No – The north side of the M4 from the site. Public access is present in this area.
St Fagan's SINC.	The site has been designated for Beech Plantation woodland and ponds with semi-natural woodland bank vegetation	Approximately 2km to the south-west of the site. Approximate GR ST11547747.	Possible - recreational pressures-should there be public access.

- 3.1.5 An area of ancient semi-natural woodland, approximately 0.4ha, is present adjacent to Clos Ty Bronna Road and north of St Fagans Road, approximately 0.86km south-west of the site and another 0.8km to the north. The 0.4ha woodland forms part of the same woodland designated within Coedbychan SINC. It is possible there could be recreation pressure on these woodlands should there be public access.
- 3.1.6 Excluding the areas of restored ancient and ancient woodland within SINC's mentioned above (Fairwater Park, Glan Ely Wood, Riverside Wood, Waterhall Plantation and Pond, Plymouth Great Wood, Coedbychan, River Taff, Coed-y-Goff, and Radyr Community Woodlands), one other areas of restored ancient semi-natural woodland is recorded approximately 2km from the site to the south-west. Due to the distance from the site the proposed development is considered unlikely to have a significant impact either directly or indirectly, on these areas.
- 3.1.7 There are currently no Tree Protection Orders (TPO) within or at the boundaries of the site.


## **3.2 Habitats**

- 3.2.1 All habitats on site are described in Table 2, together with an indication of their potential to support legally protected, notable and Section 7 Priority Species. The table also provides an evaluation of the sensitivity of the habitats relative to the proposed works.
- 3.2.2 Habitats which have the potential to be subject to adverse effects are indicated with bold text and are discussed in the latter sections of the report. Habitats for which potential adverse effects are not anticipated are excluded from further assessment.
- 3.2.3 The location and extent of habitats is shown on Drawing Number CA11839/002 (Habitat Plan).
- 3.2.4 A review of OS data has identified three waterbodies, two ponds and one watercourse, within 500m of the site as shown on Drawing Number CA11839/004 (Waterbody Location Plan).


**Table 2: Habitat Description and Evaluation**



Phase 1 Habitats		UK BAP/ Section 7	Potential Adverse Effects?
<p><b><u>Poor - Semi-Improved Neutral Grassland</u></b></p> <p>The north, west and parts of southern boundaries of the site consist of strips and areas of semi-improved grassland. A southern facing bank is present to the north of the site.</p> <p>Grass species present include abundant Yorkshire fog <i>Holcus lanatus</i> and frequent perennial rye-grass <i>Lolium perenne</i>.</p> <p>Other species present include: black medic <i>Medicago lupulina</i> (O), bramble <i>Rubus fruticosus</i> (R), broadleaved dock <i>Rumex obtusifolius</i> (F), field bindweed <i>Convolvulus arvensis</i>(O), common birds foot trefoil <i>Lotus corniculatus</i> (O), common ragwort <i>Jacobaea vulgaris</i> (O), cranesbill species <i>Geranium</i> sp. (O), creeping buttercup <i>Ranunculus repens</i> (O), creeping cinquefoil <i>Potentilla reptans</i> (R), dandelion <i>Taraxacum officinale</i> (O), fox and cubs <i>Pilosella aurantiaca</i> (R), red clover <i>Trifolium pratense</i> (F), ribwort plantain <i>Plantago lanceolata</i> (O) spear thistle <i>Cirsium vulgare</i> (R), and white clover <i>Trifolium repens</i> (O).</p>		x	<p>Yes – this habitat is nationally and regionally common and widespread, but the site is mainly surrounded by a built-up environment and therefore this habitat is locally uncommon. The loss of this habitat could reduce the overall availability of this habitat for species on site and within Fairwater Park.</p> <p>See Table 3 re birds, hedgehogs, amphibians and invertebrates.</p>




Phase 1 Habitats		UK BAP/ Section 7	Potential Adverse Effects?
<p><b><u>Broadleaved Scattered Trees</u></b></p> <p>There are areas of broadleaved scattered trees, both semi-mature and mature, along the north, west, and southern boundaries of the site.</p> <p>Lines of scattered trees are present at the western and southern boundaries, with mature trees within the woodland to the south-east of the site. There are groups of scattered trees along parts of the northern boundary, around the bungalow and near the centre of the site on semi-improved grassland. Species include ash <i>Fraxinus excelsior</i>, sycamore <i>Acer pseudoplatanus</i>, lime <i>Tilia spp</i>, rowan <i>Sorbus aucuparia</i>, silver birch <i>Betula pendula</i>, maple <i>Acer spp</i>, willow sp. <i>Salix spp</i>, elm <i>Ulmus spp</i>, and wild cherry <i>Prunus avium</i>.</p>		x	<p>Yes – Depending on development proposals and extent of habitat loss.</p> <p>See Table 3 re breeding birds, roosting bats and invertebrates.</p>



Phase 1 Habitats		UK BAP/ Section 7	Potential Adverse Effects?
<p><u>Scrub – Dense/Scattered</u></p> <p>Four areas of dense scrub and two areas of scattered scrub are present along the boundaries of the site. Most areas consist of abundant buddleia <i>Buddleja davidii</i> and bramble, with common nettle <i>Urtica dioica</i> (F), sycamore <i>Acer pseudoplatanus</i> (O) and ash (O).</p>		x	<p>No – this scrub habitat is common and widespread and its loss would not be of conservation concern.</p> <p>See Table 3 re breeding birds, bats, amphibians and invertebrates.</p>

Phase 1 Habitats		UK BAP/ Section 7	Potential Adverse Effects?
<p><b><u>Semi-natural broadleaved woodland</u></b></p> <p>A small area of woodland, approximately 436m<sup>2</sup>, is present in the south-east corner of the site. The small area is connected to wider woodland within Fairwater Park SINC to the east. Metal fencing marks the site boundary.</p> <p>The woodland canopy consists of a mixture of young, semi-mature and mature trees including ash (F), Sycamore (F) and common lime <i>Tilia x europaea</i> (O). Areas of scrub are present as part of the understory and around the woodland boundaries, species present include bramble (F) and common ivy <i>Hedera helix</i> (F). The ground layer is predominantly bare ground and leaf litter.</p>		✓	<p>Yes - Depending on development proposals and extent of habitat loss. Potential for adverse effects during construction and from increased human activity.</p> <p>See Table 3 re breeding birds, bats, amphibians and invertebrates.</p>
<p><b><u>Buildings</u></b></p> <p>Fairwater Social and Athletic Club is situated along the eastern boundary of the site, surrounded by hardstanding with scattered scrub along the walls. A derelict bungalow is situated to the north of the site, surrounded by semi-improved grassland, scrub and fencing.</p>		x	<p>No – this habitat type is not of conservation value.</p> <p>See Table 3 re breeding birds and bats.</p>

Phase 1 Habitats		UK BAP/ Section 7	Potential Adverse Effects?
<p><u>Bare ground</u></p> <p>An area of bare ground is present directly north of the broadleaved woodland and south of the dense scrub, in the south-eastern corner of site, as shown in the photograph.</p>		x	No – this feature is not of conservation value.

### **3.3 Species**

- 3.3.1 Protected and Section 7 priority species are evaluated in order to identify potential ecological constraints in Table 3 below, based on the desk study records, presence, extent and viability of supporting habitat, ecological connectivity and perceived nature and extent of effects.
- 3.3.2 Species/taxa for which potential adverse effects are not anticipated are excluded from further assessment.

**Table 3: Protected Species Evaluation**

Species/taxa	Desk Study record?	Status <sup>7</sup>	Supporting Habitat	Potential Adverse Effect?
<b>Bats <i>Chiroptera</i></b>	<p>Roost records within 2km include:</p> <ul style="list-style-type: none"> <li>Soprano pipistrelle <i>Pipistrellus pygmaeus</i> roost (2015) 0.67km south</li> <li>Common pipistrelle <i>Pipistrellus pipistrellus</i> (2012) transitional maternity roost 1km north</li> <li>Brown long eared <i>Plecotus auratus</i> (2012) 1.2km east</li> <li>Daubenton's <i>Myotis daubentonii</i> (2014) tree roost, 1.3km west</li> <li>Unknown bat (2013) tree roost, 1.8km northeast</li> <li>Soprano pipistrelle (2014) roost, 2km southwest</li> <li>Serotine <i>Eptesicus serotinus</i> (2014) roost, 2km southwest</li> </ul> <p>Other species recorded from none roost records include noctule <i>Nyctalus noctula</i>, Nathusius'</p>	CHSR(2), WCA(5), Bern, Section 7	<p>Yes – Mature trees have the potential to support roosting bats. Full results of the PGLRA are provided in Appendix 2. 2 trees were identified to be of moderate suitability and 12 were of low suitability. All other trees on site were identified to be of negligible suitability and were excluded from the full results.</p> <p>The buildings on site may have the potential to support roosting bats. No bat roosts were identified during bat surveys of the buildings in 2020.</p> <p>The mature trees, woodland and scrub a habitats within and around the site boundaries have the potential to support foraging and commuting bats.</p>	<p>Yes – If mature trees, buildings or flight lines potentially used for roosting/foraging/commuting are impacted upon by the proposed development.</p> <p>Consideration should also be given to the effects of lighting.</p>

<sup>7</sup> CHSR – Protected under Conservation of Habitats and Species Regulations 2017 (as amended) schedule in brackets , **WCA** – Protection under Wildlife and Countryside Act (as amended) schedule in brackets, **BA** – Protection of Badgers Act, **BAP** – Biodiversity Action Plan Priority Species, **LBAP** – Local BAP , **Section 7** – Environment (Wales) Act, 2016, **Bern** – The Bern Convention on the Conservation of European Wildlife and Natural Habitats, **UKBR** - RSPB UK Red listed birds, **UKBA** - RSPB UK Amber listed birds.

Species/taxa	Desk Study record?	Status <sup>7</sup>	Supporting Habitat	Potential Adverse Effect?
	<b>pipistrelle <i>Pipistrellus nathusii</i>, whiskered <i>Myotis mystacinus</i>, Natter's <i>Myotis nattereri</i> and lesser horseshoe <i>Rhinolophus hipposideros</i>.</b>			
Badger <i>Meles meles</i>	Yes – seven records of badger within 2km of the site. Nearest record approximately 1.4km of the site in 2020, which is the most recent record.	BA	No evidence of badger setts and associated activity observed. The semi-improved grassland could provide limited foraging opportunities for badgers.	Unlikely to be affected unless found to be present in the future.
Brown hare <i>Lepus europaeus</i>	No.	Section 7	No – The habitats within the site are considered unlikely to support brown hare.	No – The habitats on site are unlikely to support this species.
<b>European hedgehog <i>Erinaceus europaeus</i></b>	<b>Yes – 54 records of hedgehog within 2km of the site. Nearest record approximately 352m south-east of the site in 2013. The most recent record was in 2020.</b>	<b>Bern, Section 7</b>	<b>Yes - The mosaic of small habitats is suitable to support this species. The adjacent residential gardens to the west and north-west of the site also have the potential to support hedgehog.</b>	<b>Yes – potential for harm if present at the time of the works.</b>
Hazel Dormouse <i>Muscardinus avellanarius</i>	No.	CHSR (2) WCA(5), Section 7	No – No records of hazel dormice within 2km of the site. The site does not contain key food plants that dormice require. The area of woodland within the site and within Fairwater Park SINC lacks connectivity to suitable wider areas, so dormice is unlikely to be present	No – This species is not considered to be present within the site.
Eurasian otter <i>Lutra</i>	Yes – nine records of otter within 2km of the site, all associated with the River Taff and River Ely, the	CHSR (2),	No – The habitats within the site are considered unlikely to support otter.	No - The habitats on site are unlikely to support this species.

Species/taxa	Desk Study record?	Status <sup>7</sup>	Supporting Habitat	Potential Adverse Effect?
	nearest record is approximately 902m south-west of the site in 2015. The most recent record was in 2019.	WCA(5), Section 7		
Water vole <i>Arvicola amphibius</i>	No.	WCA (5), Section 7	No – The habitats within the site are considered unlikely to support water vole and the River Ely 158m south of the site is unlikely to support water vole.	No – this species is unlikely to be present.
White-clawed crayfish <i>Austropotamobius pallipes</i>	No.	WCA (5), Section 7	No – The habitats within the site are considered unlikely to support white-clawed crayfish.	No – this species is unlikely to be present.
<b>Common reptiles</b>	<p><b>Yes –three species of common reptile recorded within 2km of the site.</b></p> <ul style="list-style-type: none"> <li>- Slow worm: – 11 records within 2km of the site. Nearest record was 332m west of the site in 2013, the most recent record is in 2020.</li> <li>- Common lizard: – four records within 2km of the site. Nearest record was 443m south-west of the site within St Peter’s Community Garden in 2016, which is the most recent record.</li> <li>- Grass snake: – one record of grass snake within 2km of the site, approximately</li> </ul>	WCA(5), Bern, Section 7	Yes – Habitats within the site such as scrub margins and grassland of variable structure, with a mixture of vegetation heights (e.g. tussocky grass, mown areas and basking areas) have the potential to provide suitable habitat for common reptiles (slow worm and common lizard).	Yes – vegetation clearance and direct habitat loss have the potential to harm/disturb reptiles, if present.



Species/taxa	Desk Study record?	Status <sup>7</sup>	Supporting Habitat	Potential Adverse Effect?
	1.8km north of the site in Hailey Park, in 2015.			
Great crested newt (GCN) <i>Triturus cristatus</i>	<p>Yes – records of GCN from presence / absence surveys carried out at St Fagans National Museum of History between 1987-2018, approximately 2km to the south-west of the site.</p> <p>Other historic records include.</p> <ul style="list-style-type: none"> <li>- five records of GCN approximately 0.9km north-east of the site at Fairwater Park (The Dell) between 1976-2000.</li> </ul>	CHSR(2), WCA(5), Section 7	Yes – The terrestrial habitats within the site have limited potential to support GCN, with the scrub and woodland being of most value. There were no ponds identified on the site, however Fairwater Park SINC pond, approximately 353m to the south-east of the site contains historical records for GCN.	Yes – vegetation clearance and direct habitat loss have the potential to harm/disturb GCN, if present.
Other amphibians	<p>Yes – four other species of amphibian shown to be using the habitats within 2km of the site, namely;</p> <ul style="list-style-type: none"> <li>- palmate newt <i>Lissotriton helveticus</i> (2 records, nearest record approximately 1.2km north-west of the site in 2012, the most recent records are from St Fagans National Museum of History approximately 2km to the south-west of the site in 2014);</li> <li>- smooth newt <i>Lissotriton vulgaris</i> (2 records, nearest record approximately 1.7km north of the site in 2018, which is the most recent record):</li> </ul>	WCA(sale only), Section 7 (common toad), Bern.	Yes – The terrestrial habitats within the site have limited potential to support amphibians, with the scrub and woodland being of most value. There were no ponds identified on the site.	Yes – Potential for killing and injuring individuals should other amphibians be present at the time of construction works.



Species/taxa	Desk Study record?	Status <sup>7</sup>	Supporting Habitat	Potential Adverse Effect?
	<ul style="list-style-type: none"> <li>- common frog <i>Rana temporaria</i> (7 records, nearest record approximately 313m south of the site in 2013. The most recent record is in 2019); and</li> <li>- common toad <i>Bufo bufo</i> (6 records, nearest record approximately 1.3km north-east of the site in the river taff in 2020, which is the most recent record).</li> </ul>			
Birds	Yes - Numerous bird records within 2km search area including WCA Schedule 1 listed species, and RSPB UK Red and amber listed birds of conservation concern.	WCA(1), Bern, Section 7.	Yes – Foraging and breeding habitat provided in grassland, broadleaved scattered trees, scrub and woodland within the site. Buildings could also support nesting birds such as house sparrow or house martin <i>Delichon urbica</i> .	Yes – Potential breeding and foraging habitat may be lost/disturbed by proposed development.
Barn Owl ( <i>Tyto alba</i> )	No.	WCA(1), Bern, Section 7.	No – The habitats within the site are considered unlikely to support barn owl.	No – The habitats on site are unlikely to support this species.
Invertebrates	Yes – Numerous records within 2km search area for species listed on Section 7.	LBAP, Section 7.	No – The scrub and grassland habitats within the site have limited potential to support some protected/notable invertebrates, including but not limited to, white ermine, grey dagger, lackey, and dot moth which are found in a variety of common habitats such as scrub, grassland, gardens and parks. Their caterpillars	Possible – Any habitat loss at the site will have a level of impact on invertebrate species present.

Species/taxa	Desk Study record?	Status <sup>7</sup>	Supporting Habitat	Potential Adverse Effect?
			<p>feed on a range of common herbaceous plants such as common nettle <i>Urtica dioica</i> and docks etc.</p> <p>However, the surrounding residential garden habitat and surrounding Fairwater park SINC off site is likely to support better quality habitat for these species.</p>	
Protected plant species	No – Vascular plant species recorded within 2km of the site, and no records of Section 7 protected species or UK BAP priority species	BAP, Section 7.	No – The habitats within the site are considered unlikely to support protected plant species and none were observed during the Extended Phase 1 Habitat Survey.	No – The habitats on site are unlikely to support protected plant species.
Invasive plant species	<p>Yes - Various records within 2km search area for species, including but not limited to;</p> <ul style="list-style-type: none"> <li>- Japanese knotweed <i>Reynoutria japonica</i>;</li> <li>- Himalayan balsam <i>Impatiens glandulifera</i>;</li> <li>- Himalayan knotweed <i>Persicaria wallichii</i>;</li> <li>- Cherry laurel <i>Prunus laurocerasus</i>; and</li> <li>- Japanese rose <i>Rosa rugosa</i>;</li> </ul>	WCA (9).	<p>No invasive species under section 9 of the WCA were observed during the Phase 1 Habitat Survey.</p> <p>Buddleja is present. It is non-native and invasive but this species is not listed on schedule 9 of the WCA and so mitigation measures do not need to be implemented.</p>	No – unless found to be present in the future.

## **4 DISCUSSION AND RECOMMENDATIONS**

### **4.1 Sensitive Receptors**

4.1.1 The following designated sites, habitats and species (receptors) have been evaluated as being subject to potential adverse effects:

- statutory designation (Hermit Wood LNR)
- non-statutory designations (SINCs);
- broadleaved scattered trees;
- semi-natural broadleaved woodland;
- poor semi-improved grassland;
- bats;
- breeding birds;
- GCN and other amphibians;
- common reptiles;
- European hedgehog; and
- invertebrates.

4.1.2 Potential effects, requirements for further survey and proposed mitigation/compensation are discussed below for each of the identified ecological receptors.

### **4.2 Statutory Designation**

#### *Hermit Wood LNR*

4.2.1 Hermit Wood LNR is within 2km which could potential be affected by development i.e. recreational impacts. Once development plans are known an assessment should be made of the site with regards to its designatory features, site favourability, zone of influence and views on management. This would be captured within an Ecological Impact Assessment (EclA) for the site.

### **4.3 Non-statutory Designations**

#### *Fairwater Park SINC*

4.3.2 Semi-natural broadleaved woodland is present in the south-eastern corner of the site, and connects to woodland within Fairwater Park SINC, for which the site is designated

for. Further assessment will therefore be required to assess potential significant effects arising from the proposed development (e.g. habitat loss and recreational impacts) and if mitigation measures are required.

#### *River Ely SINC*

- 4.3.3 The watercourse directly adjacent to the south-eastern boundary of the site within Fairwater Park SINC confluences with River Ely SINC south of the site. Due to the connections via the watercourse, the construction phase of development could potentially affect the River Ely SINC to the south of the site. It is recommended that appropriate pollution measures are implemented during construction to prevent damage and pollution to the watercourses located adjacent to the site. This can be achieved through following CIRIA's Environmental Good Practice (2015) guidance with regards to the prevention of environmental pollution, the degradation of the water, environment and associated habitats.

#### *Remaining SINC*s

- 4.3.4 It has been determined from the desk study that there are 13 SINC's within 2km that could be impacted by recreational pressure depending on the chosen development for the site. Further assessment will be required to determine if these sites have public access, the features of interest and how recreation is currently managed to assess potential significant effects arising from the proposed development (e.g. recreational impacts) and if mitigation measures are required.
- 4.3.5 The approach should be discussed with the Council's Ecologist.

### **4.4 Habitats**

#### *Broadleaved scattered trees*

- 4.4.1 There are a number of scattered broadleaved trees at the site, outside of the woodland, these are valuable in their own right for the species they may support birds and lichens. Where possible these trees should be maintained in the design for the site. Retained trees should be protected in accordance with British Standard (BS) 5837:2012 *Trees in Relation to Design, Demolition and Construction* and in accordance with any Tree Protection Plans approved by the Local Authority. Where trees are felled these should be replaced greater than like for like with the same species of native trees of Welsh provenance.

*Semi-natural broadleaved woodland*

- 4.4.2 It is recommended that the woodlands within the site are retained where possible and enhanced for biodiversity. Where loss of woodland habitat cannot be avoided, compensation, in the form of the provision of new habitat of an equal size or greater should be provided as part of any future development proposals. Appropriate woody species of local provenance should be selected.
- 4.4.3 Retained woodland should be protected in accordance with BS 5837:2012 *Trees in Relation to Design, Demolition and Construction* and in accordance with any Tree Protection Plans approved by the Local Authority.

*Poor semi-improved grassland*

- 4.4.4 Where grassland removal cannot be avoided, any loss should be compensated for by the provision of species rich managed grasslands as a minimum within all grassland landscaping. Consideration should also be given to extensive green roofs that could support these shorter grassland types. Appropriate species of local provenance should be selected and could include using turf from the site itself. This approach should be further discussed when the development proposals for the site are known.

**4.5 Species**

- 4.5.1 It is advised that the recommendations below and that of any future survey are input into a toolbox talk for workers at the site, including precautionary methods of working for species where survey has been avoided through appropriate measures.
- 4.5.2 It is also advised that detailed designs for the site incorporate green corridors (green infrastructure) to allow the unimpeded movement of plants and animals through the site and allow continued healthy populations of flora and fauna that will look to prevent the decline of species populations and range in the local area.
- 4.5.3 The below recommendations should be agreed with the Council's Ecologist to ensure survey windows are covered.
- 4.5.4 Details of all proposed measures that do not require further survey i.e., buffering, should be provided within an Ecological Management Plan for approval by the Council's Ecologist.

## **Bats**

### *Bat roosts*

- 4.5.5 There are two trees with moderate suitability and 12 with low suitability to support roosting bats. The trees with moderate suitability will require further survey, either by endoscope or a Climb and Inspect Survey. The trees identified to be of low suitability are required to be soft felled while supervised by an ecologist.
- 4.5.6 Full PGLRA results are in Appendix 2 and the location of trees with bat roosting potential are shown on Drawing Number CA11839/005 (PGLRA Results).
- 4.5.7 The buildings were subject to further bat emergence/re-entry surveys in July 2020. Refer to the Bat Survey Report '*Fairwater Social Club, Bat Report – Building Surveys*' prepared by WA dated December 2020.

### *Bat activity (foraging and commuting)*

- 4.5.8 The habitats on site suitable for foraging/commuting bats include the semi-natural broadleaved woodland, scattered trees and scrub areas. The Fairwater Park also provides foraging opportunities for bats. It is therefore recommended that these habitats are retained and protected where possible within the development proposals. The proposed development has the potential to impact on foraging and commuting bats through artificial lighting. It is recommended that no lighting during construction and as part of the proposed development is located along the Fairwater Park boundaries and that lighting levels are not increased along this boundary because of the proposed development.
- 4.5.9 Further activity surveys for bats are recommended to establish the species present and assess the potential effects on foraging / commuting bats from increased light levels.
- 4.5.10 From the results of the Phase 1 Habitat Survey the habitat is assessed as having of 'low' suitability for foraging and commuting bats. Best practice guidelines recommend that seasonal (spring (April / May), summer (June / July / August), and autumn (September / October) surveys are undertaken during suitable weather conditions.

## **Common Reptiles**

- 4.5.11 The habitats on site, notably poor semi-improved grassland and scrub, could have the potential to support common reptiles and they may also use woodland habitats for shelter. However, given the lack of, and size of suitable habitats on site, the likelihood of a significant reptile population being present is very low. Vegetation clearance and

direct habitat loss have the potential to harm common reptiles if present at the time of the works, which would be an offence under the Wildlife and Countryside Act 1981 (as amended).

4.5.12 The risk of harm to common reptiles can be reduced by the implementation of suitable reasonable avoidance measures, under a Precautionary Working Method Statement (PWMS).

4.5.13 A PWMS should be obtained prior to work commencing. To avoid works adversely affecting the local conservation status of common reptiles, if present, it is recommended that works should avoid the hibernation period (October/November – March/April).

#### ***GCN and other amphibians***

4.5.14 There are no ponds on site but one within Fairwater Park SINC pond, approximately 353m to the east and separated by a stream tributary of the River Ely.

4.5.15 The terrestrial habitats on site, including the woodland and scrub habitats, have the potential to support GCN and other amphibians. However, given the distance between the pond, the suitability of the intervening habitat for terrestrial newts, and the lack of recent records of GCN in the pond and more recent records of fish in the pond, it is considered unlikely that the development would have any impact upon the favourable conservation status of GCN.

4.5.16 The risk of harm to other amphibians can be reduced by the implementation of suitable reasonable avoidance measures, under a PWMS.

4.5.17 A PWMS should be obtained prior to work commencing. To avoid works adversely affecting the local conservation status of amphibians, if present, it is recommended that works should avoid the hibernation period (October/November – March/April).

#### ***Birds***

4.5.18 Breeding and foraging habitat for birds are located within the site including semi-improved grassland (foraging only), broad-leaved scattered trees, dense/scattered scrub, semi-natural broadleaved woodland and buildings.

4.5.19 Potential breeding and foraging habitat may be lost or disturbed by proposed development. If any future plans include vegetation clearance, like for like habitat should be created, where possible.

4.5.20 Any vegetation clearance should be undertaken outside of bird breeding season (March to August, inclusive). If this is not possible, then areas of vegetation clearance and buildings should be checked by a suitably qualified ecologist 48 hours in advance of any affecting works for the presence of occupied nests. Any subsequent advice provided by the ecologist, as to how to accord with legislation, should be followed.

#### ***European Hedgehog***

4.5.21 There are suitable habitats within the site to support hedgehog. It is not anticipated that the loss of habitat will significantly affect this mobile species especially if the works are phased. However, the construction works have the potential to harm individuals.

4.5.22 In order to avoid works adversely affecting the local conservation status of hedgehogs, if present, it is recommended that works which may disturb potential hedgehog hibernacula located in field margins and scrub should avoid the hibernation period (November – March).

4.5.23 If excavations need to be left open overnight, it is recommended that a means of egress such as a wooden plank or a sloping end wall be provided so individual hedgehogs can escape. Avoidance of night-time working is also recommended. It is recommended that connectivity for European hedgehogs throughout the site is considered in any future development plans.

#### ***Invertebrates***

4.5.24 The habitats within the site could potentially support a range of invertebrate species including Section 7 species. It is recommended that the semi-natural woodland, trees, scrub and poor semi-improved grassland are retained, protected and enhanced for invertebrates, where possible.

### **4.6 General recommendations**

4.6.1 If the site boundary alters and any other habitats are identified to be lost or affected by the development, then further surveys for habitats and protected species may be required.

4.6.2 It is recommended that an update walkover is undertaken if 12 months has elapsed since this the date of the Extended Phase 1 Habitat Survey (August 2020) to see if there have been any substantial changes to the habitats present on the site.

4.6.3 Night-time work should be avoided whenever possible to reduce the potential for disturbance to nocturnal animals.



## **5 ECOLOGICAL ENHANCEMENTS**

5.1.1 In accordance with the requirements of BSI 42020:2013 ecological enhancements should be proposed which will result in a net gain in biodiversity. This would equally satisfy Planning Policy Wales, the Cardiff Local Development Plan 2006-2026 and the Cardiff Councils biodiversity duty requirements of the Environment (Wales) Act 2016.

5.1.2 The below measures may be able to be incorporated into the proposed works to enhance the site for wildlife, although this list is not exhaustive and additional measures may need to be considered as a result of further survey.

5.1.3 Details of all proposed biodiversity enhancements should be provided within a Ecological Management Plan for approval by the Council's Ecologist.

### **5.2 Site Ecological Enhancements**

5.2.1 There are a variety of simple and cost-effective measures that could be implemented as part of the development proposals to enhance the site for a range of wildlife including bats, common reptiles, and breeding birds, including species which are UK BAP and Welsh Section 7 Priority listed species. These include, but are not limited to the following:

- Installation of bird nest boxes and bat boxes onto trees which target local biodiversity priority species. Concentrating on providing bat boxes with maternity and hibernation provision.
- Installation of bat and bird brick - integrated into any new buildings which target target local biodiversity priority species. Concentrating on providing bat boxes with maternity and hibernation provision.
- Habitat creation and inclusion of native species in any proposed landscape scheme for the site;
- Sowing of areas of open space with a diverse native wildflower seed mix would provide a foraging resource for a range of species including invertebrates and birds;
- Provision of a hibernaculum for the benefit of common reptiles and amphibians;
- Provision of insect hotels, wood piles / loggery would benefit of invertebrates; and
- Use of hedgehog houses within the scheme and provision of 13cm x13 cm holes in fences can provide enhancement opportunities for this species.

## **6 CONCLUSION**

- 6.1.1 Given the identified evidence of presence and/or likely presence of ecological receptors which may be adversely impacted by the development scheme, further surveys and/or assessments have been recommended in order to inform a full evaluation of adverse effects. Consequently, additional protected species survey and assessment reports will be required to compliment the planning application. Additionally, the results of further protected species surveys and evaluations should be considered within an Ecological Impact Assessment (EclA) report, in line with standard industry practice (CIEEM 2018). This report should include a formal assessment of impacts and will be suitable to fully inform the planning application.

## 7 REFERENCES

- 7.1.1 Botanical Society of the British Isles (2013) *Online atlas of the British and Irish Flora*. Available from: [http://www.brc.ac.uk/plantatlas/index.php?q=title\\_page](http://www.brc.ac.uk/plantatlas/index.php?q=title_page)
- 7.1.2 British Standards Institution (2013) *BS 42020:2013: Biodiversity – Code for Practice for Planning and Development*.
- 7.1.3 British Standards Institution (2012) *BS 5837:2012: Trees in Relation to Design, Demolition and Construction. Recommendations*.
- 7.1.4 Chartered Institute of Ecological and Environmental Management (2017) *Guidelines for Preliminary Ecological Appraisal*.
- 7.1.5 Chartered Institute of Ecological and Environmental Management (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine, version 1.1 updated 2019*.
- 7.1.6 Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.
- 7.1.7 Institute of Environmental Assessment (1995) *Guidelines for Baseline Ecological Assessment*. E. & F. Spon, London.
- 7.1.8 JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012) *UK Post-2010 Biodiversity Framework*. Available from: <http://jncc.defra.gov.uk/page-6189>.
- 7.1.9 Joint Nature Conservation Committee (2010) 2016, *Handbook for Phase 1 habitat survey: A technique for environmental audit*. English Field Unit, Nature Conservancy Council.
- 7.1.10 Joint Nature Conservation Committee (Anon 2008 updated 2010) *UK BAP Priority Habitat Descriptions*. Available from: <http://jncc.defra.gov.uk/page-5706>
- 7.1.11 Stace. C. A., (2019) *New Flora of the British Isles (4th Edition)*. C&M Floristics.
- 7.1.12 Welsh Government, *Planning Policy Wales* (February 2021) 11th ed.

## APPENDICES

## **Appendix 1**

### **Summary of Legislative Framework and Planning Policy**

## Appendix 1: Summary of Species (Fauna) Protection and Legislation

### Summary of Legislation

<b>Protection for animals included on Schedule 2 of the Habitat Regulations 2017</b>		
A person commits an offence if he:		
Section 43	Part 1	(a) Deliberately captures, injures or kills any wild animal of a European protected species (b) Deliberately disturbs wild animals of any such species. (c) Deliberately take or destroy the eggs of such an animal (d) Damage or destroy a breeding site or resting place of such an animal
	Part 2	For the purpose of paragraph (1)(b), disturbance of animals includes in particular any disturbance which is likely a) to impair their ability i. to survive, breed or reproduce or to rear or nurture their young; or ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate. b) to affect significantly the local distribution or abundance of the species to which they belong
	Part 3	It is an offence to: a) be in possession of, or to control, b) transport, c) sell or exchange, or d) to offer for sale or exchange.
	Part 4	Paragraph (3) applies to: a) any live or dead animal or part of animal (i) which has been taken from the wild, and (ii) which is a species or subspecies listed in Annex IV(a) of the Habitats Directive; and b) anything derived from such an animal or any part of such an animal.
	Part 5	Paragraph (1) and (3) apply regardless of the stage of the life of the animal in question.

<b>Protection for animals included on Schedule 5 of the Wildlife and Countryside Act 1981 (As Amended)</b>		
Section 9	Part 1	Intentionally kill, injure, take a scheduled animal
	Part 2	Possess or control (live or dead animal, part or derivative)
	Part 4 (a)	Intentionally or recklessly damage, destroy or obstruct access to any structure or place used by a scheduled animal for shelter or protection
	Part 4 (b)	Intentionally or recklessly disturb an animal occupying such a structure or place
	Part 5 (a)	Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative)
	Part 5 (b)	Advertise for buying or selling such things

A large number of species are also included under Section 7 of the Environment (Wales) Act 2016 as Species of Principal Importance which places the “biodiversity duty” on the Welsh Government (and therefore public authorities) for the purpose of maintaining and enhancing biodiversity in relation to Wales. This stems from a review of the now superseded UK Biodiversity Action Plan and the continued need for global action on conserving biodiversity as result of the Convention on Biological Diversity.

### **Bats**

All UK bat species are afforded full protection (including their habitats) through inclusion on Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (as amended by The Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019) and further partial protection by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Barbastelle (*Barbastella barbastellus*), Bechstein’s (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), greater horseshoe (*Rhinolophus ferrumequinum*) and lesser horseshoe (*Rhinolophus hipposideros*) bats are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales”.

### **Badgers**

Badgers are afforded full protection under the Protection of Badgers Act 1992, which makes it an offence to:

- Wilfully kill, injure or take a badger;
- Possess or control any live or dead badger or any part, or anything derived from, a dead badger;
- cruelly ill-treat a badger, or attempt to do so;
- To interfere with a sett by:

- damaging or destroying it;
- obstructing access to, or any entrance of, a badger sett;
- causing a dog to enter a badger sett;
- disturbing a badger when it is occupying a sett;
- Sell a live badger or offer one for sale.

It is also an offence to mark, attach any ring, tag or other marking device to a badger unless authorised under licence.

### ***Hazel Dormouse***

Hazel dormouse are afforded full protection (including their habitats) through inclusion on Schedule 2 of The Conservation of Habitats and Species regulations 2017 (as amended by The Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019) and further partial protection by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Hazel dormouse are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales”.

### **Hedgehog**

Hedgehogs are protected under Section 1 of the Wild Mammals (Protection) Act 1996, which makes it an offence too mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering to this species. Hedgehog is listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales”.



## **Polecat**

Polecat are protected under Section 1 of the Wild Mammals (Protection) Act 1996, which makes it an offence too mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering to this species. Polecat is listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales”.

## **Reptiles**

Six native reptiles occur in Britain: the adder (*Vipera berus*), the grass snake (*Natrix natrix*), the smooth snake (*Coronella austriaca*), the sand lizard (*Lacerta agilis*), the common lizard (*Zootoca vivipara*) and the slow worm (*Anguis fragilis*).

The smooth snake and sand lizard are afforded full protection (including their habitats) through inclusion on Schedule 2 of The Conservation of Habitats and Species regulations 2017 (as amended by The Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019) and further partial protection by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Five of the six native reptile species (excluding smooth snake) are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales”.

## **Great Crested Newts and other amphibians**

Great crested newts are afforded full protection (including their habitats) through inclusion on Schedule 2 of The Conservation of Habitats and Species regulations 2017 (as amended by The Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019) and further partial protection by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Under the Wildlife and Countryside Act 1981, other amphibians, including smooth and palmate newts, common frogs and common toad cannot be sold or be offered for sale.

Great crested newts and common toad are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales” within Section 7 of The Environmental (Wales) Act 2016.

### ***Birds***

All wild birds, their nests and eggs are protected under Part 1 Section 1 of the Wildlife and Countryside Act, 1981 (as amended), which makes it an offence (with certain limited exceptions and in the absence of a licence) to:

- Kill or injure any wild bird;
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built (this includes several species of birds whose nests are reused under Schedule ZA1);
- Take or destroy the egg or any wild bird.

It is also an offence to possess any live or dead wild bird or egg, or anything derived from a wild bird or egg. Restrictions on trade and advertising also apply.

Bird species listed on Schedule 1 of the Wildlife and Countryside Act, 1981 (as amended) are afforded additional protection against intentional or reckless disturbance whilst it is building a nest, or at a nest containing eggs, young or disturbance to the young.

Further a number of bird species are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales” within Section 7 of The Environmental (Wales) Act 2016.

In addition to this legal protection, leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of the birds regularly found here and produced a list of Birds of Conservation Concern. Of the 247 species assessed, 67 were placed on the red list of high conservation concern, 96 on the amber list of medium conservation concern and 81 on the green list of low conservation concern. Consideration is therefore given to those species listed as being of conservation concern although they have no greater legislative protection.

### ***Invertebrates***

***A number of invertebrates are afforded*** full protection (including their habitats) through inclusion on Schedule 2 of The Conservation of Habitats and Species regulations 2017 (as amended by The Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019) and further partial protection by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

In addition, a number of species of invertebrates are fully or partially protected only under Schedule 5 of the Wildlife and Countryside Act 1981.

A number of invertebrates are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales”.

### ***Plants***

***A number of plants are afforded*** full protection through inclusion on Schedule 5 of The Conservation of Habitats and Species regulations 2017 (as amended by The Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019) and further partial protection by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

In addition, a number of species of plants are fully protected only under Schedule 5 of the Wildlife and Countryside Act 1981.

A number of plants are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning

authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales”.

### ***Invasive Species***

***A number of animal and plant species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and The Invasive Alien Species (Enforcement and Permitting) Order 2019. It is an offence too:***

- ***Allow the releases or allows to escape into the wild any animal which is of a kind which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state; or included in Part I of Schedule 9,***
- ***If any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9.***

Under Schedule 9A of the act species control agreements and orders can be made in accordance with The Invasive Alien Species (Enforcement and Permitting) Order 2019.

### ***Planning policy***

All statutory and non-statutory designated sites, along with species covered by national legislation and those under Section 7 of the Environment (Wales) Act 2016, are considered through Planning Policy Wales 2018 which provides a guide for Local Planning Authority (LPA) decision making, including statements such as “ensure statutorily and non-statutorily designated sites are properly protected and managed”, “safeguard protected and priority species and existing biodiversity assets from impacts” and “secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.” This is reflected in policies EN5- EN7 of the Cardiff Local Development Plan 2006-2026 with statements such as “development will only be permitted if it does not cause unacceptable harm to: Landscape features of importance for wild flora and fauna, including wildlife corridors and ‘stepping stones’ which enable the dispersal and functioning of protected and priority species”.


There is also the “biodiversity duty” placed upon LPAs through the Environment (Wales) Act 2016 to enhance biodiversity and ensure the resilience of ecosystems. This is will be considered by the LPA when making planning decisions to ensure that they meet their own reporting duties.



## **Appendix 2**

### **Preliminary Ground Level Roost Assessment**



## Appendix 2: Preliminary Ground Level Roost Assessment



The full results for the Preliminary Ground Level Roost Assessment (PGLRA) are described in the table below, which includes the bat roosting potential (BRP) for each tree. The location of the trees identified to be of moderate or low BRP is shown on Drawing Number CA11839/005 PGLRA Results.


Ref	Species	BRP	Description	Photograph
T01	Ash	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	
T02	Ash	Negligible	No features seen from ground and unlikely to be concealed by vegetation higher up.	N/A
T03	Ash	Negligible	No features seen from ground and unlikely to be concealed by vegetation higher up.	N/A


Ref	Species	BRP	Description	Photograph
T04	Sycamore	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	
T05	Ash	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	






Ref	Species	BRP	Description	Photograph
T06	Lime	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	
T07	Sycamore	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	

Ref	Species	BRP	Description	Photograph
T08	Ash	Negligible	No features seen from ground and unlikely to be concealed by vegetation higher up.	N/A
T09	Lime	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	
T10	Sycamore	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	



Ref	Species	BRP	Description	Photograph
T11	Ash & Sycamore	Negligible	Young trees with no features identified.	N/A
T12	Ash	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	
T13	Rowan	Negligible	No features identified.	

Ref	Species	BRP	Description	Photograph
T14	Ash	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	
T15	Sycamore	Negligible	No features identified.	N/A
T16	Ash	Negligible	No features identified.	N/A
T17	Ash	Negligible	No features identified.	N/A

Ref	Species	BRP	Description	Photograph
T18	Sycamore	Moderate	Multiple areas of loose bark.	
T19	Silver birch	Negligible	No features identified.	N/A

Ref	Species	BRP	Description	Photograph
T20	Maple	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	
T21	Unknown	Moderate	Callous rolls and potential splits in branches, surveyor was unable to get a close enough view to rule these features out.	



Ref	Species	BRP	Description	Photograph
T22	Willow sp.	Low	No features seen from the ground, but tree is of suitable size and structure to potentially support features.	
G01	Ash & elm	Negligible	Line of young trees, no features identified.	N/A
G02	Sycamore	Negligible	Line of young trees, no features identified.	N/A
G03	Wild cherry	Low	Two matures trees, dense ivy growth may conceal features further up.	





## **DRAWINGS**





KEY

Site Boundary

2km Search Radius

Note;

Boundaries are indicative.

A	First Issue	23/04/21	HM	SC	SW	
REVISION	DETAILS	DATE	DRAWN	CHKD	APPD	
CLIENT	CARDIFF COUNCIL					
PROJECT	FAIRWATER SOCIAL CLUB					
DRAWING TITLE	SITE LOCATION PLAN					
DRG No.	CA11839/001		REV	A		
DRG SIZE	A3	SCALE	1:15,000		DATE	23/04/2021
DRAWN BY	SRW	CHECKED BY	SC	APPROVED BY	SW	

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Site Boundary (wall)

Broadleaved woodland - semi-natural

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|||||

Notes:

Boundaries are indicative.

Classifications in accordance with Handbook for Phase 1  
Habitat Survey - A technique for Environmental Audit  
(JNCC 2010) 2016.

A	First Issue	23/04/21	HM	SC	SW
REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
CLIENT					
CARDIFF COUNCIL					
PROJECT					
FAIRWATER SOCIAL CLUB					
DRAWING TITLE					
HABITAT PLAN					
DRG No.	CA11839/002	REV	A		
DRG SIZE	A3	SCALE	1:750	DATE	26/04/2021
DRAWN BY	SW	CHECKED BY	SC	APPROVED BY	SW

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Site Boundary

500m Buffer

Waterbodies

Watercourses

Notes:

Boundaries are indicative.

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A	First Issue	23/04/21	HM	SC	SW
REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
CLIENT					
CARDIFF COUNCIL					
PROJECT					
FAIRWATER SOCIAL CLUB					
DRAWING TITLE					
WATERBODY LOCATION PLAN					
DRG No.		CA11839/004		REV A	
DRG SIZE		A3		SCALE 1:5,000	
DRAWN BY		SRW		DATE 07/05/2021	
CHECKED BY		SC		APPROVED BY SW	

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KEY

- Site Boundary
- Low Bat Roost Potential
- Moderate Bat Roost Potential

Note:

Boundaries are indicative.

A	First Issue	23/04/21	HM	SC	SW
REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
CLIENT					
CARDIFF COUNCIL					
PROJECT					
FAIRWATER SOCIAL CLUB					
DRAWING TITLE					
PGLRA RESULTS					
DRG No.		CA11839/005		REV A	
DRG SIZE		A3		SCALE 1:500	
DATE		23/04/2021		DRAWN BY SRW	
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