Preliminary Ecological Appraisal for a proposed development on land at Carmarthen Leisure Centre Llansteffan Road Johnstown Carmarthen Carmarthenshire

Client: Carmarthenshire County Council

Survey Date: 30/08/2024

Report Reference: WW/30824b

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1. Introduction

Wyndrush Wild was contracted to carry out a preliminary ecological appraisal in support of an application to Carmarthenshire County Council for a new housing development.

The proposed development is on amenity land alongside the Carmarthen Leisure Centre in Johnstown. The grid reference is SN402185 (see figure 1 below).

The aim of the survey is to provide baseline data on habitat and species, both on and adjacent to the site, and to investigate potential impacts that may occur during construction and post-construction stages. An assessment is made of any potential impact on protected species or sites in the area.

Survey Site at Johnstown

Site Description

The proposed site is an area of regularly-mown grassland alongside a leisure centre. The ground slopes very gently to the north, with a steeper bank down to the adjoining tennis courts. Soils are free-draining and there are no watercourses on site.

Proposed Development Site

2. Methodology

2.1 Desk Exercise

A limited desk exercise was carried out.

The Afon Tywi SSSI / SAC lies around 20m away to the east. Saltmarsh and sand martin are some of the features of this SSSI, whilst otter and six fish species are the basis of the SAC designation.

The Carmarthenshire Rare Plant Register and British Bryological Society databases hold no records for the site. There are numerous bat roosts in the surrounding area.

2.2 Extended Phase I Survey

A thorough site inspection was made on 1st August 2024. The survey followed the methodology set out by the Handbook for Phase 1 Habitat Survey (JNCC, 1993) and then subsequently by the Institute of Environmental Assessment (1995). The methods provide quick and accurate classification of habitats.

In addition, the survey looked for field signs of protected species and assessed the habitat for their potential presence. Measures taken included:

- A search for signs of badgers on the site.
- Consideration of the potential impact of the development on bats, hazel dormice and other protected species.
- Recording breeding birds and identifying the suitability of the habitat for nesting birds especially those listed as species of conservation concern.
- Recording a list of plants found on the site, shown in Appendix 1.

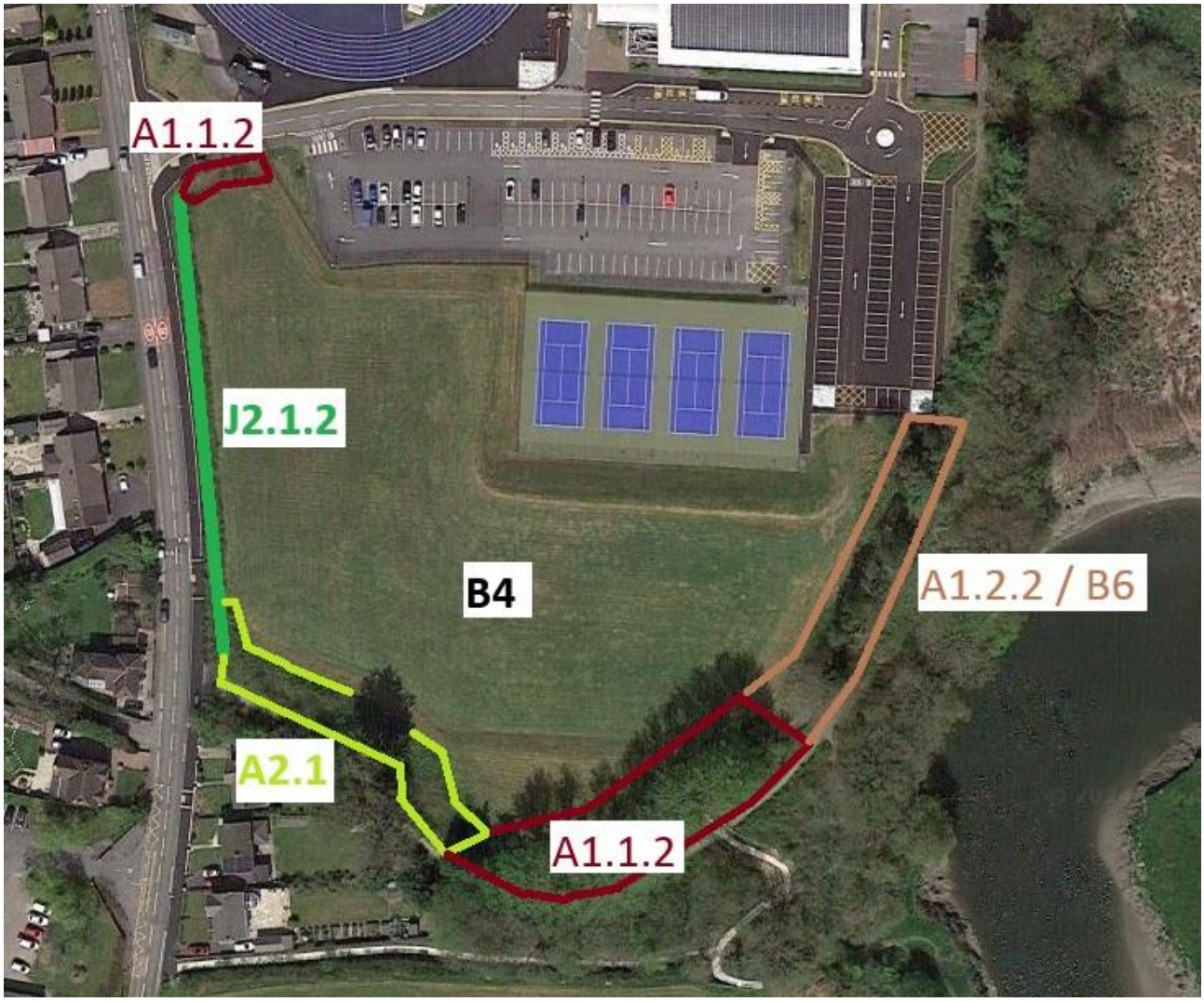
2.3 Constraints

There were no constraints to survey.

3. Results

3.1 Vegetation and habitat survey

The habitats at the site location were recorded in detail. The area comprises improved grassland (B4), poor semi-improved grassland (B6), intact species-poor hedgerow (J2.1.2), dense scrub (A2.1), broad-leaved plantation woodland (A1.1.2) and coniferous plantation woodland (A1.2.2).



Phase I habitat map

Improved Grassland B4 / Poor Semi-improved Grassland B6

The sward is regularly mown and has abundant white clover

The grassland across the site is dominated by common bent, Yorkshire fog and perennial rye-grass. Associates are all agriculturally-favoured species such as daisy, creeping buttercup, common mouse-ear and white clover.

There are small patches of poor semi-improved grassland amongst bramble and trees on a bank on the eastern boundary. These are dominated by cock's-foot and red fescue, with lesser knapweed and nettle.

The grassland habitat is of little ecological significance.

Intact Species-poor Hedgerow J2.1.2 / Dense Scrub A2.1

The roadside hedge is dominated by blackthorn and hawthorn, with bracken and bramble

The western boundary comprises a relatively bushy 2.5m hedge dominated by blackthorn and hawthorn, with some hazel but no standard trees. The ground flora is generally poor, comprising common species such as wood avens and herb Robert; square-stemmed St. John's wort was also noted. To the south-east, the hedge connects to an area of nettles and bramble with some spear thistle and broad-leaved willowherb.

All hedgerows are classed as Priority Habitat under the Environment (Wales) Act 2016; this species-poor hedge does not class as Important under the Hedgerow Regulations (1997) and is of no more than local ecological significance.

Broad-leaved Plantation Woodland A1.1.2 / Coniferous Plantation Woodland A1.2.2

(top) western balsam-poplar dominates along the southern boundary; (bottom-left) and (bottom-right) the eastern boundary bank has grey willow and Norway spruce amongst bramble

There are mature planted trees around the southern and eastern boundaries of the site, on a bank leading down to a footpath. Western balsam-poplar dominates, and there are scattered conifers including Norway spruce, Japanese larch and Leyland's cypress. These trees will support some insects and birds, but are of no more than minor ecological interest.

3.2 Protected species

There are no mature trees or buildings within the field. The planted trees alongside the site were investigated for potential roost features, but all were classed as having negligible potential, lacking ivy cover and having smooth trunks without cavities.

No badger setts, runs or foraging signs were found on the site. The proposed development would not affect badgers.

The regularly-mown grassland habitat is unsuitable for amphibian species. There are no water features on the site which would attract amphibians, and no significant potential hibernacula features.

The mown part of the site has no potential for reptiles; there could conceivably be common lizards or slow-worms in association with the small patches of rough grassland on the eastern boundary bank.

The hedge and boundary scrub have negligible potential for hazel dormice; there are no connections to areas of better-quality habitat and this species has not been recorded from the area.

The small areas of bramble scrub on the site are too close to sources of disturbance to be used by otters.

The site is of minor value to nesting birds; Hedges may hold common species, such as wren and dunnock. Goldcrest was the only Bird of Conservation Concern (Stanbury et al, 2021) seen on site; this may breed in the boundary conifers.

3.3 Invasive Non-Native Species

No invasive species were found.

4. Discussion

4.1 Scheme Details

The development proposal is for a social housing development of 34 dwellings, with new access through the roadside hedge. Ecological enhancements are proposed in the form of a ‘green’ area in the south-west corner of the site. Plantation woodland to the south and east would be retained.

4.2 Recommendations

4.2.1 Afon Tywi SAC

Consideration of potential impacts of site drainage and sewerage infrastructure on the nearby Afon Tywi SAC will be required through the completion of a Test for Likely Significant Effect.

4.2.2 Lighting

To reduce or avoid potential impacts on nocturnal wildlife, any external lighting associated with the scheme should be minimised. Lights should be downward-directed and hooded to avoid excess light-spill, and on time sensors with a short duration. LED lighting, although energy-efficient, has been found to impact more significantly on moths, good populations of which might currently be expected within the woodland and hedgerows near the site.

4.2.3 Invasive Species

Any landscaping associated with the scheme should avoid the use of potentially invasive species listed by Thomas (2010) in addition to known invasives such as wall cotoneaster listed on Section 9 of the Environment (Wales) Act (2016). Use of locally-native species or natural regeneration should be preferred.

4.3 Compliance with Environment Act (Wales) 2016 / Net Biodiversity Gain

Impacts on the existing hedgerow, classed as 'Priority Habitat' under the Environment (Wales) Act, are expected to be minimal. These could be mitigated for by the planting of new native broadleaved species elsewhere on site. Bird and bat boxes should be incorporated onto or into buildings, including swift bricks.

5. Summary and Conclusions

The proposed development does not present a risk to protected species in the area. Consideration of potential impacts on the nearby Afon Tywi SAC will be required through the completion of a Test for Likely Significant Effect. Opportunities exist for the proposal to demonstrate net biodiversity gain.

6. References

Handbook for Phase I habitat survey Nature Conservancy Council 1990

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and

second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747. Available online at https://britishbirds. co.uk/content/status-our-bird-populations.

Appendix 1 Plant species recorded at the site during the walkover visit

Sycamore	*Acer pseudoplatanus*
Common Bent	*Agrostis capillaris*
Alder	*Alnus glutinosa*
Daisy	*Bellis perennis*
Cuckoo Flower	*Cardamine pratensis*
Lesser Knapweed	*Centaurea nigra*
Common Mouse-ear	*Cerastium fontanum*
Creeping Thistle	*Cirsium arvense*
Marsh Thistle	*Cirsium palustre*
Hazel	*Coryllus avellana*
Hawthorn	*Crataegus monogyna*
Leyland's Cypress	*Cupressiforme leylandii*
Cock's-foot	*Dactylis glomerata*
Great Willowherb	*Epilobium hirsutum*
Red Fescue	*Festuca rubra*
Ash	*Fraxinus excelsior*
Wood Avens	*Geum urbanum*
Atlantic Ivy	*Hedera helix hibernica*
Yorkshire Fog	*Holcus lanatus*
Square-stemmed St. John's-wort	*Hypericum tetrapetrum*
Japanese Larch	*Larix kaempferi*
Perennial Rye-grass	*Lolium perenne*
Norway Spruce	*Picea abies*
Greater Plantain	*Plantago major*
Western Balsam-poplar	*Populus trichocarpa*
Silverweed	*Potentilla anserina*
Creeping Cinquefoil	*Potentilla reptans*
Self-heal	*Prunella vulgaris*
Cherry	*Prunus sp.*
Blackthorn	*Prunus spinosa*
Sessile / Pedunculate Oak	*Quercus petraea / robur*
Creeping Buttercup	*Ranunculus repens*
Bramble	*Rubus fruticosus*
Common Sorrel	*Rumex acetosa*
Procumbent Pearlwort	*Sagina procumbens*
Grey Willow	*Salix cinerea*
Smooth Sow-thistle	*Sonchus oleraceus*
Dandelion	*Taraxacum officinale*
White Clover	*Trifolium repens*
Nettle	*Urtica dioica*