

# Preliminary Ecological Appraisal for a proposed development at the former Secondary School, Llandysul Ceredigion

Client: Dyffryn Teifi Developments

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#### 1. Introduction

The author (as Matt Sutton Ecology) was contracted in 2019 to carry out a preliminary ecological appraisal, and associated assessment of trees with potential bat roost features, in support of an application to Ceredigion County Council for a housing development. The current report provides an update to these surveys. The bat scoping survey carried out in 2019 on the school buildings in the eastern part of the site determined that activity surveys were required; no further assessment of buildings took place during the current survey.

The proposed development is on the site of the former secondary school, Llandysul. The grid reference is SN 411 406 (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.



Figure 1. Proposed Development Site at Llandysul

#### Site Description

The proposed site primarily comprises the playing field of the former school. An all-weather sports pitch, Tarmac and stone-surfaced yards cover parts of the grounds, and there are also two buildings to the north.

The site is enclosed on three sides by hedges, and flanked by the leisure centre and former school buildings to the east.



Figure 2. Proposed Development Site – view from north-west

### 2. Methodology

#### 2.1 Desk Exercise

A limited desk exercise was carried out. The Ceredigion rare plant register holds no records for the site. The nearest protected site - the Afon Teifi SSSI / SAC – lies approximately 325m to the south.

#### 2.2 Extended Phase I Survey

The original site inspection was made on 4<sup>th</sup> September 2019; the current survey took place on 27<sup>th</sup> April 2024. Both surveys 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 surveys 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 and other protected species.
- Recording 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 the survey.

#### 3. Results

#### 3.1 Vegetation and habitat survey

The habitats at the site location were recorded in detail during the original survey. There have been no significant changes since 2019. The area predominantly comprises built ground (J3.6), improved grassland (B4), poor semi-improved neutral grassland (B6) and hedge with trees (J2.3.2). There are small areas of scrub (A2.1) and ephemeral / short perennial (J3).



Figure 3. Phase I habitat map

- TN1: Recently-felled trees (beech and Leyland's cypress)
- TN2: Bullate Cotoneaster

#### **Buildings J3.6**



Figure 4. The old school buildings are included in the application area

The northern and eastern parts of the site are occupied by buildings and associated yard and car park areas. The school buildings were subject to bat scoping survey in 2019, and will require activity surveys in 2024.

Small areas of **amenity grassland** are found around the school buildings, and small areas of **ephemeral / short perennial vegetation** fringe parts of the limestone chip-surfaced yard in the northeastern part of the site. Common species such as self-heal, yarrow, lesser knapweed and fox-andcubs were noted here, as well as two more local species of disturbed ground, field penny-cress and Des Etang's St. John's-wort. Several moss species were recorded, including *Didymodon fallax* and *Aloina aloides*, and a jelly lichen *Collema* sp. is abundant. The yard was in active use during the current survey and was not re-investigated. The habitats are of minor ecological significance.

#### **Poor Semi-improved Neutral Grassland B6**

Poor semi-improved grassland dominates the banks to the east of the site

The banks on the eastern part of the site are dominated by rough semi-improved grassland. Here, common bent grass, cock's-foot, sweet vernal grass and Yorkshire fog dominate, with some false oat-grass, creeping bent, timothy and red fescue. There are patches with abundant yarrow and lesser knapweed, but associates are generally agriculturally-favoured species such as broad-leaved dock, beaked hawksbeard and creeping thistle. Common winter-cress was noted around the edges of the sports pitches. The common moss *Rhytidiadelphus squarrosus* is abundant. The sward is rather species-poor.

In the National Vegetation Classification, the grassland is referable to an impoverished form of *Arrhenatherum elatioris grassland*, *Festuca rubra* sub-community MG1a.

This poor-quality grassland does not form part of the 'Lowland Meadows' Priority Habitat. It is of minor significance.

#### **Improved Grassland B4**



A species-poor sward dominates the former playing field

The bulk of the site comprise a species-poor, strongly grass-dominated sward of former amenity grassland. Common bent grass was overwhelmingly dominant, during the 1999 survey, but Yorkshire fog is now also abundant. Creeping bent, sweet vernal grass and cock's-foot were also noted. The few associated wildflowers include lesser stitchwort, dandelion, cuckoo flower, creeping buttercup and ribwort plantain. Lesser knapweed and cat's-ear are now rare - occasional, but other indicators of semi-improved grassland, such as common bird's-foot trefoil, remain absent. No grassland fungi were fruiting at the time of survey. The habitat is of little ecological significance.

#### Dense Scrub A1.2

Hedge With Trees J2.3.2 / Intact Species-poor Hedge J2.1.2



Hedge in north-western part of site

Boundaries around the site had **Hedge with Trees J2.3.2** with pedunculate oak, ash, sweet chestnut, hawthorn, blackthorn, rowan and sycamore variously prominent. The standard trees within the southern, roadside hedge had been felled prior to the current survey; those within the western boundary hedge remain. The short hedge in the northern part of the site has mature beech. Lesser stitchwort, common dog violet and wood sage were noted among the ground flora.

**Dense Scrub A2.1** on the northern boundary bank comprises a thick growth of European gorse, together with patches of blackthorn and grey willow sloping down to the yard. To the south of the site there is also an unmown area dominated by bramble with blackthorn, nettle, rosebay willowherb and creeping thistle.

Hedgerows are a Priority Habitat, and these examples are of some local interest; they will also provide feeding and commuting corridors for bats. The scrub areas provide good nectar sources for insects and habitat for breeding birds.



Clockwise from top-left: mature beech and hedge on eastern boundary; dense gorse bank on northern boundary; southern boundary hedge; dense bramble fringe in south-western corner

#### **3.2 Protected Species**

The scoping assessment for potential bat roost features within trees on and around the site was repeated. The standard trees within the southern hedge, none of which held potential roost features in 2019, have now been removed. None of the young trees in the western boundary hedge – a horse chestnut, ash, beech and rowan – have any potential roost features. Trees in the northern part of the site, recently added to the application area, had recently been removed.

Several buildings require bat activity survey and were not re-assessed as part of the current survey.

No badger setts or field signs were found on the site.

The site is generally unsuitable for amphibian species, with no standing water and little in the way of potential hibernacula aside from some piles of materials in the northern yard. The site could be used by dispersing individuals, but aerial photography reveals no obvious standing water features near the site.

The site is of low or moderate suitability for reptiles. The hedgerow, grassland edge and scrub areas appear to have some low potential for common reptile species such as common lizard or slow-worm; the northern edge around the yard and gorse scrub may have moderate potential and the rough grassland in the south-east of the site may have some potential for slow worms. If further survey is

not carried out, work should proceed according to a reptile mitigation strategy which assumes their presence.

The site is of low suitability for hazel dormice. The scrub is of recent origin, the hedges have little hazel, and the site is not connected to areas of optimal habitat or known dormice sites.

The site may have some potential to support hedgehogs.

The scrub and trees provide potential nest sites for several bird species. Only two birds of conservation concern were noted – house sparrow (red-listed in UK) and dunnock (amber-listed in UK). The latter would potentially nest in scrub areas on the site. The former is likely to be nesting in old school buildings in the eastern part of the site. There is potential for swifts to also nest in these buildings. A pair of stonechats appeared to be nesting in the scrub in the south-west corner of the site.

#### 3.3 Invasive Species

Bullate cotoneaster (*Cotoneaster rehderi*) was present near the yard to the north of the site. The similar hollyberry cotoneaster (*Cotoneaster bullatus*) is a known invasive, listed on Schedule 9 of the Wildlife and Countryside Act 1981.

#### 4. Discussion

#### 4.1 Scheme Details

The development proposal is for the creation of new housing across the site. No further details were available at the time of survey.

#### 4.2 Recommendations

#### Reptiles

If a reptile survey is not carried out (optimal start time now would be August 2024), a reptile mitigation method statement may be required.

#### **Protected Sites**

The Afon Teifi SSSI / SAC is relatively close, but there is no hydrological connectivity to the site and there is presumably little potential for it to be impacted by site drainage during and post construction. Details of intended sewerage / construction site run-off were not available at time of survey, but a pollution prevention plan and Habitat Regulations Assessment may be required to ensure that the SAC is not adversely affected.

#### Invasive Species

Bullate cotoneaster should be removed from the site. All landscaping associated with the scheme should avoid the introduction of invasive or potentially-invasive species; native trees and shrubs should be preferred. Species listed on Schedule 9 of the Wildlife and Countryside Act (Appendix 2)

should not be planted, and those listed by <u>Thomas (2010)</u> for their invasive potential should also be avoided.

#### 4.3 Promotion of Biodiversity at the Site

Ceredigion County Council requires that biodiversity enhancements are included in all developments to meet the Authority's Duty of Care under Section 6 of the Environment Act 2016. Planning Policy Wales (PPW) 12 sets out that "planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means that development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity".

Some biodiversity features could be incorporated in the landscaping associated with the development, and this will certainly be the case if good 'wildlife gardening' principles are employed, using native species where possible. Mature trees should be retained where possible. Amenity areas should be managed without fertiliser or herbicides.

Bat roost features and swift nest boxes could be incorporated into buildings within the development.

#### 5. Summary and Conclusions

The proposed development does not present a significant risk to habitats in the area. Consideration of potential impacts on the Afon Teifi SAC may be required. Further survey to assess the potential impact on reptiles may be required, or a reptile mitigation strategy could be implemented which assumes their likely presence. Assessment of bat usage of buildings is required.

#### 6. References

Chater, A (2001) Ceredigion Rare Plant Register

Nature Conservancy Council (1990) Handbook for Phase I habitat survey

Rodwell, J.S. (1992). *British Plant Communities Vol. 3: Grasslands and Montane Communities*. CUP.

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Sutton, M.D. (2019) *Preliminary Ecological Assessment, former Secondary School, Llandysul* (Matt Sutton Ecology Report)

Sutton, M.D. (2019) Assessment of Trees for Potential Bat Roost Features at the former Secondary School, Llandysul, Ceredigion (Matt Sutton Ecology Report)

Thomas, S. (2010). *Horizon-scanning for invasive non-native plants in Great Britain*. Natural England Commissioned Reports, Number 053

#### Appendix 1

Plant species recorded at the site during the walkover visits

American Willowherb Epilobium ciliatum Fraxinus excelsior Ash Atlantic Ivy **Beaked Hawksbeard** Blackthorn Bramble **Broad-leaved Dock Bullate Cotoneaster** Cat's-ear Cock's-foot Common Bent Common Mouse-ear **Common Ragwort** Common Sorrel **Common Wintercress Couch Grass Creeping Bent Creeping Buttercup Creeping Cinquefoil Creeping Thistle Cuckoo Flower** Daisy Dandelion Des Etang's St. John's-wort False Oat-grass Field Penny-cress **Field Woodrush** Fox-and-cubs Germander Speedwell Greater Bird's-foot Trefoil **Grey Willow** Salix cinerea Hazel Herb Robert Hoary Willowherb Hogweed Horse Chestnut Italian Rye-grass Lesser Knapweed Lesser Stitchwort Pedunculate Oak Perennial Rye-grass **Red Fescue Ribwort Plantain Rosebay Willowherb** Scarlet Pimpernel Self-heal

Hedera helix hibernica Crepis capillaris Prunus spinosa Rubus fruticosus Rumex obtusifolius Cotoneaster rehderi Hypochoeris radicata Dactylis glomerata Agrostis capillaris Cerastium fontanum Senecio jacobaea Rumex acetosa Barbarea vulgaris Elytrigia repens Agrostis stolonifera Ranunculus repens Potentilla reptans Cirsium arvense Cardamine pratensis Bellis perennis Taraxacum officinale agg. Hypericum desetangsii Arrhenatherum elatius Thlaspi arvense Luzula campestris Pilosella aurantiacum Veronica chamaedrys Lotus uliginosus Coryllus avellana Geranium robertianum Epilobium parviflorum Heracleum sphondylium Aesculus hippocastanum Lolium multiflorum Centaurea nigra Stellaria graminea Quercus robur Lolium perenne Festuca rubra Plantago lanceolata Chamaerion angustifolium Anagallis arvensis Prunella vulgaris

- Silverweed Smooth Meadow-grass Soft Rush Sweet Chestnut Sweet Vernal Grass Sycamore Thyme-leaved Speedwell Timothy White Clover Wild Strawberry Yarrow Yorkshire-fog
- Potentilla anserina Poa pratensis s.l. Juncus effusus Castanea sativa Anthoxanthum odoratum Acer pseudoplatanus Thymus serpyllifolia Phleum pratense Trifolium repens Fragaria vesca Achillea millefolium Holcus lanatus