

# Ecological Implications Assessment

**Site:** Argoed High School, Mynydd Isa Campus, Bryn Road, Bryn Y Baal,  
Mold, Flintshire, CH7 6RY

**Ref:** 20178/E4

**Client:** WEPCo Limited



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## 1. INTRODUCTION

This report is provided in support of a joint planning application to be made to Flintshire County Council (FCC) by WEPCo and FCC Education Department for the redevelopment of the Argoed High School site. The report provides an assessment of the ecological interests and constraints of the Mynydd Isa Campus at the site on Bryn Road in Bryn Y Baal near Mold, Flintshire.

On 22<sup>nd</sup> May 2020, a visit was made to the site by Indigo Surveys Ltd to assess the land for the presence (actual or potential) of important or protected species and/or priority habitats. The weather was mild and bright.

On the 5<sup>th</sup> November, FCC invited WEPCo to prepare proposals for the development of a new 3-16 age range campus on the existing Argoed High School site in the village of Mynydd Isa. The project is to co-locate Ysgol Mynydd Isa primary school and the existing Argoed high school into a new building. The high school and primary school will remain as separate schools but operate within a single building with some shared facilities and is to accommodate 1300 full time learners.

Ecological data was also obtained from COFNOD, the ecological database for Denbighshire, this revealing a number of records of European Protected Species, UK Biodiversity Action Plan (UKBAP) and Local Biodiversity Action Plan (LBAP) species within a 1.0 km radius of the site, along with a small number of statutory and non-statutory wildlife conservation sites.

## 2. ECOLOGICAL CONSTRAINTS

### 2.1 Ecological data search

Within 1.0 km of the site there were two statutory sites; Buckley Claypits and Commons Site of Special Scientific Interest (SSSI), and Deeside and Buckley Newt Sites Special Area of Conservation (SAC).

There were also two non-statutory sites:

- Coed Argoed Local Wildlife Site
- Bryn y Baal Quarry RIGS

Due to the distances between the land and these sites, the presence of significant barriers including main roads and buildings, and the lack of direct connectivity, any proposed development is unlikely to impact adversely on these sites or the ecological communities therein.

The desk study also revealed a number of records of European Protected Species, UK Biodiversity Action Plan (UKBAP) and Local Biodiversity Action Plan (LBAP) species within a 1.0 km radius of the site.

None came from the site itself, but within 1.0 km there were a number of bat records for the area. Species included Lesser Horseshoe *Rhinolophus hipposideros*, Noctule *Noctula nyctalus*, Natterer's Bat *Myotis nattereri*, Common Pipistrelle *Pipistrellus pipistrellus*, Brown Long-eared Bat *Plecotus auritus* and unknown bats.

Other mammal records included Badger *Meles meles*, Hedgehog *Erinaceus europaeus*, Brown Hare *Lepus europaeus* and Polecat *Mustela putorius*, all of which came from beyond barriers such as roads and houses.

Amphibian and reptile records included Great Crested Newt *Triturus cristatus*, Smooth Newt *Lissotriton vulgaris*, Palmate Newt *Lissotriton helveticus*, Common Frog *Rana temporaria*, Common Toad, Common Lizard *Vivipara zootoca* and Slow Worm *Anguis fragilis*, all of which came from beyond 500 metres from the site.

Bird records included Song Thrush *Turdus philomelos*, Starling *Sturnus vulgaris*, Dunnock *Prunella modularis* and Kestrel *Falco tinnunculus* amongst others.

### 2.2 Site description and survey results

The site encompassed the buildings and grounds of Argoed High School.

The grounds were dominated by large playing fields sport pitches/courts and amenity grassland lawns.

The amenity grassland comprised a short sward of Perennial Ryegrass *Lolium perenne*, Creeping Fescue *Festuca rubra*, and meadow-grasses *Poa spp.* Forbs amongst the sward included Dandelion *Taraxacum section vulgare*, White Clover *Trifolium pratense*, Daisy *Bellis perennis*, Great Plantain *Plantago major* and Ribwort Plantain *Plantago lanceolata*.

Secondary habitats included a number of mixed scattered trees, sections of intact hedge and hedge with trees and a narrow, culverted brook.

The trees included Sessile Oak *Quercus petraea*, Sycamore *Acer pseudoplatanus* Whitebeam *Sorbus aria*, Lombardy Poplar *Populus nigra italica*, Red Western Cedar *Thuja plicata* and Larch *Larix sp.* amongst others

The intact hedgerows and hedges with trees comprised Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa*, Field Maple *Acer campestre*, Elder *Sambucus nigra*, English Oak *Quercus robur*, Sycamore, Bramble *Rubus fruticosus* and Common Nettle *Urtica dioica*.

School buildings, carparks and walkways represented buildings and hard standing.

No rare vascular plants were found, and all species recorded were common and widespread.

During the site visit just two species of birds were observed, both of which were Species of Low Conservation Concern (RSPB Green list): Woodpigeon *Columba palumbus* and Carrion Crow *Corvus corone corone*.

Bird nesting opportunities within the survey area were plentiful, with scattered trees and hedgerows providing nesting habitat. However, no old or in-use nests were found.

None of the trees contained features such as woodpecker holes, fissures and exfoliating bark, that provided potential for bat roosting and/or hibernation.

An external inspection of the buildings revealed one of the buildings had medium suitability for roosting and/or hibernating bats.

As such, two nocturnal surveys were undertaken, these on the evening of 22<sup>nd</sup> August and the morning of 6<sup>th</sup> September 2020.

During the evening survey no bats emerged from the school building, but two Common Pipistrelle Bats *Pipistrellus pipistrellus* were detected foraging along the perimeter hedgerow. No bats were recorded during the dawn return survey. The surveys confirmed the absence of a bat roost, and the site itself had low value to foraging bats.

There were no signs or evidence of Badger *Meles meles* activity, whilst the small brook offered relatively poor/unsuitable habitat for Otters *Lutra lutra* and Water Vole *Arvicola amphibius*.

There were no still water or other wetland features on the site, and as such there was negligible potential for amphibians.

The site offered poor habitat for reptiles due to the frequent mowing regime and lack of suitable cover.

Since the site was dominated by close mown amenity grassland, with limited floristic diversity, it was concluded that there was low potential for significant invertebrate assemblages, in particular those species listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan. Indeed, none were noted.

### **3. ECOLOGICAL MITIGATION & PROTECTION**

Since all in-use bird's nests and their contents are protected from damage or destruction, any scrub removal or works which may affect a nest should be undertaken outside the period 1<sup>st</sup> March to 31<sup>st</sup> August inclusive. If this time frame cannot be avoided, a close inspection of the scrub to be removed will be undertaken prior to clearance.

Work will not be carried out within a minimum of 5.0 metres of any in-use nest, although this distance could be more depending on the sensitivity of the species. Any in-use nest will be allowed to fledge before it is disturbed.

Irrespective of the absence of reptiles and amphibians, care will be taken at all times when carrying out earthworks, as small mammals could be present. Any small mammals disturbed or uncovered will either be caught by hand and relocated to a safe area, or left to vacate the work site in their own time.

If excavations are to be undertaken, it should be noted that open trenches could potentially trap wildlife, especially if these fill up with water. Escape routes will therefore be provided if trenches cannot be infilled immediately. These can be in the form of branches or boards placed on the bottom of the trench, with their upper ends above ground level and touching the sides, or sloping ends left in trenches.

#### 4. ECOLOGICAL ENHANCEMENT

The application will seek permission for the redevelopment of the Argoed High School site to develop a new primary and secondary school in a co-located building, to be known collectively as the Mynydd Isa Campus. In summary, it is understood that the proposed works will include the:

- ❑ Demolition of the existing Argoed High School buildings;
- ❑ Construction of a new Net Zero Carbon in operation school campus including nursery, primary and secondary provision;
- ❑ Hardstanding and pedestrian walkways;
- ❑ Designated car and cycle parking space for staff and visitors;
- ❑ Enhancements to the existing pick up/drop off zone off Bryn Road;
- ❑ A new all weather grass pitch, as well as a grass football pitch and running track;
- ❑ Various hardstandings including 5no. floodlit MUGAs;
- ❑ Play and amphitheatre spaces;
- ❑ Forest school / habitat / science garden;
- ❑ Pedestrian footbridge to the grass sports pitches to the southeast of the site;
- ❑ Retention of three existing grass sports pitches at the south of the site;
- ❑ Landscaping; and
- ❑ Sustainable Urban Drainage Systems (SUDS).

A proposed site layout for the development is shown below (Plan 1).



**Plan 1 Proposed site layout**

The proposed landscaping scheme will provide suitable for nesting and foraging birds, small mammals and pollinating insects.

It is understood that an Arboricultural Survey undertaken of the site confirmed that Category A, B, C and U trees are present on site. The majority of the Category A trees are at the site boundary, although there is a notable Category A Oak tree in the vicinity of the existing sports hall. Boundary trees located at the site are mainly deciduous and predominantly located around the lower eastern half of the application site. It is understood that the development will see the removal of circa 22no. trees in order to facilitate the proposed scheme design. All Category A trees are proposed for retention at the site, alongside existing hedgerows including along the existing brook.

The applicant has confirmed that replacement trees and new additional tree planting is proposed, to the sum of 131no. trees. All existing mature trees and hedgerows along the application site boundaries would be retained, with additional tree, hedge and shrub planting proposed around the main school building in accordance with the Planting Strategy, which is submitted with the planning application. The existing school playing fields to the south of the site would remain as existing. An area to the northwest of the site and west of the proposed car park is proposed to be landscaped with meadow seeded areas and tree planting for educational use as a forest school.

The areas of planting close to the building would function as rain gardens to capture treat and convey water from the roof that would connect to a site wide SUDS network comprising swales to parking areas and ponds at the east of the site.

The exact details of species mixes for the new landscaping have yet to be confirmed, but will include the following:

- ❑ Meadow areas seeded with wildflowers;
- ❑ Rain gardens/swale planting comprising a mix of meadow seeding and plug planting to provide botanical diversity;
- ❑ Shrub and herbaceous planting;
- ❑ An attenuation basin seeded with meadow species tolerant of wet and dry condition;
- ❑ Native species hedge planting;
- ❑ Amenity grassland;
- ❑ Playing field grassland;
- ❑ New tree planting.

These will significantly improve the site for wildlife, and additional measures will include the provision of bird, bat and insect boxes.

## **5. ECOLOGICAL IMPLICATIONS**

From an ecological perspective, the proposed development is considered to have little impact on wildlife or habitats.

Indeed, the change in ecological value of the site pre- and post-works has been calculated.

This confirms that the proposed development will minimise the biodiversity loss in terms of overall area, whilst the measures outlined in the previous section will in fact increase the biodiversity value of the site over and above that currently existing.

## REFERENCES

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## APPENDICES

Appendix 1:           Phase 1 Habitat Map

### Appendix 1: Phase 1 Habitat Survey Map



Legend			
	Survey boundary	 Running water	 Target Note
	Amenity grassland	 Intact hedge	Not to scale
	Scattered mixed trees	 Buildings/hardstanding	

#### Target Notes

Target Note 1: External gaps on building – medium suitability for bat roosting.