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EXTENDED PHASE 1 HABITAT SURVEY
Ysgol Dolgarrog
April 2017

Report by: Kate Williamson & Chris Hall

Client: David Wilkinson. Technical Manager, K&C Group. Pure Residential and Commercial Limited, New Vision House, New Vision Business Park, Glascoed Road, St Asaph, Denbighshire. LL17 OLP

Planning Authority: Conwy County Borough Council (CCBC)

Grid Reference: SH 76954 68006 (Approximate site centre)

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EXTENDED PHASE 1 HABITAT SURVEY REPORT

Ysgol Dolgarrog

Dolgarrog

2017

1. Summary

The Phase 1 Habitat survey revealed that most of the site is dominated by heavily managed amenity grassland and grazed, improved grassland of minimal biodiversity value.

Also present is a small area of mixed woodland which is believed to be unaffected by the proposals. There are a number of broadleaved trees and small areas of introduced planting.

Some of this introduced planting includes Montbretia; (*Crocasmia x crocosmifolia*) and rhododendron; (*Rhododendron ponticum*), both of which are listed as 'Invasive Non-Native Species' (INNS) under the Wildlife & Countryside Act. While there are no legal issues with regards to growing these plants in a garden environment, there are potential legal implications should they be introduced into the wild.

Apart from the bats present within the main school building, dealt with in a separate report, the site offers very little potential to support protected species. There are linear features around the edges of the site that are likely to be used by the bats commuting from the roost to foraging sites within the wider landscape. The mixed woodland and some of the shrubs and trees will offer potential nesting habitat to a variety of common bird species during the nesting season.

2. Introduction

Cambrian Ecology Ltd was commissioned by the client, K&C Group, to carry out an Extended Phase 1 Habitat Survey of Ysgol Dolgarrog in the Conwy valley.

It is proposed to demolish the existing buildings on the site and construct a new school building. The footprint of this new building is largely within the current buildings and hard standing area of the site.

Alongside this extended Phase I habitat survey, there is also a preliminary bat and protected species survey report that covers the buildings, a draft bat method statement presented as an addendum to the above report and an arboricultural report that has looked at the trees on the site.

The relevant planning authority is CCBC.

The approximate centre of the site is located at Grid Reference SH 76954 68006

3. Methodology

3.1 Habitats

The Phase 1 Habitat survey was carried out on 10th April 2017 by ecologist Chris Hall. The survey took the form of an extended Phase I survey and identified baseline ecological conditions, as well as any important or notable habitats. All habitats within the proposed development site were classified and mapped as accurately as possible, using target notes to identify features of particular ecological interest. Species lists were drawn up for each habitat type identified and the habitat condition was assessed. In the context of this report, *important or notable habitats* are considered to be those which are of a sustainable size and which meet any of the following criteria:

- Habitats which have a high intrinsic ecological value, i.e. they support a diverse range of vascular plant and/or faunal species;
- Mature or semi-natural habitats in built-up areas;
- Any UK BAP priority habitats;
- Local BAP habitats considered having a significant extent and/or ecological interest.
- Potentially Invasive Non-Native Species, (INNS)

Where possible, habitats were cross-referenced to any relevant UK priority habitats or local Council's Biodiversity Action Plan habitats.

3.2 Protected Species

The site was also assessed by ecologist Kate Williamson on its potential to support any protected or important species. During this survey, a search was made for field signs of protected or notable species and assessments made of the potential of habitats to support these species. In the context of this report important or notable species are considered to be those that meet any of the following criteria:

- Species protected by British or international law
- UK BAP priority species or local BAP species
- Nationally rare or scarce species
- Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red or Amber lists)

Desk Study

The desktop study aims to collate existing information about priority species, habitats and designated sites within 1km of the survey area. This information has relevance to the likelihood of priority species being present within the survey area, as well as giving context to any species and habitat records from the actual site.

Records were also collated from Cambrian Ecology Ltd ecologists who have conducted previous work on other projects within the 1km search area. These records include those held by Gwynedd Bat Group and North Wales Mammal Group.

4 Survey Limitations

Field signs for protected and important species are often difficult to find or absent from a site. For this reason, the site and its habitats are assessed on their potential to support these species. An absence of records within the LRC data search is not a good indicator of the absence of species. It is mainly due to lack of recording effort.

5 Results

5.1 Habitat

The location of the habitats on the proposed development site is shown in Appendix 3.

A. Mixed woodland

There is a very small area of mixed woodland on the eastern boundary of the site. Species present include ash; (*Fraxinus excelsior*), wych elm; (*Ulmus glabra*) holly; (*Ilex aquifolium*), sycamore; (*Acer pseudoplatanus*), willow; (*Salix spp*) and spruce; (*Picea spp*).

Ground-flora was sparse at the time of the survey but included nettle; (*Urtica dioica*), cuckoo pint; (*Arum maculatum*) bluebell; (*Hyacinthoides non-scriptus*) ivy; (*Hedera helix*), herb Robert; (*Geranium robertianum*), cleavers; (*Galium aparine*), fox glove; (*Digitalis purpurea*), creeping buttercup; (*Ranunculus repens*), primrose; (*Primula vulgaris*) and ground ivy; (*Glechoma hederacea*).

B Amenity Grassland

Amenity grassland is the dominant habitat on the site and is subject to regular mowing. The species present reflect this management regime with daisy; (*Bellis perennis*), dandelion; (*Taraxacum officinale*), clover; (*Trifolium repens*), creeping

buttercup; (*Ranunculus repens*) yarrow; (*Achillea millefolium*) and ribwort plantain; (*Plantago lanceolata*) and broadleaved dock; (*Rumex obtusifolius*) are all present in the sward. In places where mowing is more difficult some colt's foot; (*Tussilago farfara*) is present but only as a very minor component.

C Improved Grassland

There is an area of improved grassland to the north of the site which has a similar botanical composition to the Amenity Grassland with the exception that broadleaved dock is more dominant in places due to poaching by the horses which graze this area.

D Scattered Native Trees

There are some scattered native trees, which are concentrated around the site perimeter. Species present include beech; (*Fagus sylvatica*), oak; (*Quercus petraea*), ash, wych elm, birch; (*Betula pendula*) and lime; (*Tilia spp*). (For full details of the trees on the site please see separate arboricultural report).

E Scattered Non-Native Trees

In addition to the above, there are also some non-native species on the site including a Portuguese laurel; (*Prunus lusitanica*), a eucalypt; (*Eucalyptus spp*), western red cedar; (*Thuja plicata*) and two Lombardy poplars; (*Populus nigra var italic*) in the south-western corner of the site.

F Introduced Species

There are small areas of ornamental planting on the western site boundary which include laurel; (*Prunus laurocerasus*), mock orange; (*Philadelphus spp*), rhododendron; (*Rhododendron ponticum*) skimmia; (*Skimmia japonica*) and Montbretia; (*Crocsmia x crocomifolia*)

G Native Species Poor Hedge

There is a hedge on part of the western boundary adjoining the area of grazed, improved grassland which is a mono-culture of hawthorn; (*Crataegus monogyna*).

H Non-Native Hedge

There is a hedge on part of the eastern boundary adjoining the area of grazed, improved grassland which is a mono-culture of an introduced conifer believed to be Leyland Cypress; (*Cupressus x leylandii*).

Figure 1: Aerial photograph



5.2 Protected Species

5.2.1 Bats

There is thought to be a significant maternity roost of brown long-eared bats within the roof voids of the main school building, along with probable roosts of individual, non-breeding crevice-dwelling bat species. These are dealt with separately within the bat and protected species preliminary report.

5.2.2 Nesting birds

There is some potential for nesting by a variety of common bird species during the breeding season. The majority of this potential is within the mixed woodland area, but also within the hedgerows, mature trees and ornamental planting on the site. The vast majority of this potential will be retained within the proposals.

5.2.3 Other protected or important species

No other signs of protected or important species were recorded during the site survey.

5.3 Desk Study

The collation of known protected species records from the Dolgarrog area includes:-

- Maternity roosts of soprano pipistrelle (*Pipistrellus pygmaeus*) and lesser horseshoe (*Rhinolophus hipposideros*) bats at Marble Arch on the RWE Coedty pipeline.
- Common pipistrelle (*P. pipistrellus*), soprano pipistrelle, Brandts (*Myotis Brandtii*), noctule (*Nyctalus noctula*), Daubentons (*M. daubentonii*) and brown long-eared (*Plecotus auritus*) bats within bat boxes in the area.
- Records of dormice from two sites within a kilometre from the school.
- Otter usage of the Conwy river and tributaries, including Coedty reservoir and Afon Porth Llwyd
- Badger activity within the Coed Dolgarrog NNR
- Breeding slow worms around the RWE Coedty pipeline route.
- Barn owl and kestrel

6 **Habitat Evaluation**

Mixed Woodland

While the trees within the mixed woodland on the site are certainly of no significant age, a number of the ground-flora species are ‘Ancient Woodland Indicator Species’ including primrose, cuckoo pint and bluebells.

This indicates that ancient woodland grew on the site relatively recently and that this habitat has the potential to further develop given a sympathetic management regime.

The mature trees have however been felled at some point and the species now present are more recently regenerated. The tree species present are of no specific biodiversity interest from a botanical point of view but do have the potential to harbour protected species (see below).

Amenity Grassland & Improved Grassland

The grassland habitats on the site are of no biodiversity or botanical interest, primarily due to being heavily managed by either mowing or grazing. The species present are all relatively common and widespread.

Scattered Native Trees

Some of the scattered native trees on the site are mature and as trees mature they become increasingly important to biodiversity and as landscape features. Mature trees

are also potentially very important for a range of protected species including bats and nesting birds.

Scattered Non-Native Trees

The non-native trees on the site are of little biodiversity or horticultural merit but consideration may need to be given to their potential to harbour protected species.

Introduced Species

The introduced species on the site are of little botanical or horticultural interest. There is however the issue of the invasive nature of the Montbretia and the Rhododendron and the legal implications associated with allowing or causing them to spread into the wild.

Hedges

The hedges on the site, both native and non-native are mono-cultures and of no specific interest from a botanical point of view. Again however, the potential for use by protected species will need to be taken into account.

7 Protected Species Evaluation

7.1 Bats

None of the mature trees on the site have any obvious features that could be potentially used by roosting bats, i.e rot holes, tears and fractures. However, the trees, mixed woodland edge and hedgerows are likely to form part of the commuting network for the resident brown long-eared and pipistrelle bats to move between the roost and foraging areas within the wider landscape. The severance of these features could potentially impact on the bats available Core Sustenance Zone (CSZ), having significant implications for the colony.

There are very minimal foraging opportunities for bats on the current site. Post-construction, the site use will be very similar to now, with high levels of lighting and an intense mowing regime of the grasslands to conserve the amenity purpose.

7.2 Nesting birds

The area of mixed woodland offers some nesting potential, along with the mature trees on the site. There is minimal potential within the small amenity planting areas. All areas are subject to significant levels of disturbance, due to the site usage as a school and playing fields. However, the woodland is fenced out and the mature trees

are of a height where direct disturbance is not an issue. Many common species are tolerant of this constant level of disturbance and will nest willingly alongside areas of high human activity.

7.3 Other protected species

There were no other signs of protected species noted during the survey and there is considered to be little potential for the site to support any other species. There are no habitats suitable for dormice or otters on the site. There is no evidence of badger foraging within the grassland areas, nor signs of breaching of the site boundaries.

There are no water features within the site or adjacent areas and it is considered unlikely that any amphibian species will be present within the site. There is some minimal potential for reptiles within the edge habitats and boundary features. However, due to the habitats present in the wider area and the current intense management regime of the grasslands, this potential is considered to be insignificant.

8 Recommendations

8.1 Habitat

Mixed Woodland

It is recommended that, if possible the woodland on the site is retained and a management regime introduced that will allow the woodland flora to develop to its full potential. This should include the removal of the spruce from this area as this species will have a detrimental impact on the ground-flora in the long term.

Grasslands

The grassland habitats on the site comprise common and widespread species of no specific botanical or biodiversity concern and their primary function is as an amenity area for the school children. However, a relatively small adjustment to the mowing management, of leaving a buffer of 1-2m around the edges, would allow a more diverse invertebrate fauna to develop, in turn providing food for insectivorous birds.

Scattered Native Trees

It is recommended that if possible, the mature native trees on the site are retained, due primarily to the length of time it takes to replace this habitat which also receives some limited protection under the NERC Act.

Scattered Non-Native Trees

No specific recommendations are made with regards to the non-native trees on the site but consideration will need to be given with regards to the potential presence of nesting birds.

Introduced Species

It is recommended that both the Rhododendron and Montbretia are controlled on-site. This will ensure that neither species is allowed to spread into surrounding habitats during the construction phase, which is a breach of legislation. In the absence of any control, measures must be put in place to ensure no disturbance of these species and potential transference via plant movements on and off site.

Hedges

No specific recommendations are made with regards to the native and non-native hedges on the site. Both are of little botanical or biodiversity benefit but consideration will need to be given with regards to the potential presence of nesting birds and the potential for these features to provide habitat connectivity for bats.

8.2 Protected Species

8.2.1 Bats

Specific recommendations as regards bats is made within the preliminary bats and protected species survey report and will be clarified within the final bat survey report once emergence surveys have been completed. Recommendations include the provision of compensation roosts within a purpose-built structure and within the roof void of the new school building, restricted lighting, planting of additional hedgerows and vegetation to provide connectivity with the compensation roosts and the wider landscape and ‘reasonable avoidance measures’ to be implemented during the construction phase.

8.2.2 Nesting Birds

It is recommended that any vegetation clearance that could have an impact on nesting birds is carried out outside the bird nesting season, recognised by RSPB as 1st March – 30th September. If this is not possible, a thorough search for active nests must be carried out by a suitably experienced person prior to clearance commencing. If any active nests are found work must be delayed until such time as the young have fledged.

9 Legal Implications

9.1 Non-Native Invasive Species

Montbretia and *Rhododendron ponticum* are included in the list of alien invasive species covered by the Wildlife & Countryside Act 1981. Under this legislation, the introduction of any of the species listed, or allowing them to spread into the wild could constitute an offence.

There are however no legal implications with regards to growing these plants in a garden situation.

9.2 Bats

Bats are protected under UK law by the Wildlife and Countryside Act 1981 (as amended) and also under European law by the Habitat and Species Regulations 2010. Under these laws it is an offence to deliberately kill or injure a bat, to disturb a bat or to damage, destroy or block access to a roost. Bat roosts are protected under these laws whether the animals are present at the time of survey or not. NRW are empowered to issue licences to carry out work to bat roosts for reasons of overriding public interest.

9.3 Nesting Birds

Under Section 4 of the 1967 Act, any person who wilfully disturbs any wild bird included in Schedule 1 of the 1954 Act, while it is on or near a nest containing eggs or unflown young, shall be guilty of an offence and liable to prosecution. It is also an offence to disturb the dependent young of 'Schedule 1' species after they have left the nest. With the introduction of the Wildlife and Countryside Act 1981, all nesting birds received even greater protection under the Act. Once a bird places a single piece of material into place it then constitutes a nest. The nest is then protected by the Wildlife and Countryside Act which makes it an offence to cause damage to the bird, nest, eggs or chicks and immediate habitat which is likely to result in damage by causing the bird to desert its nest.

In 2000, the Countryside and Rights of Way Act (CROW Act), was made law strengthening the legal protection for many species and introducing 'reckless disturbance' as an offence.

Planning Authorities are also obliged to take nesting birds into account in relation to planning decisions following guidance from the Welsh Government detailed in Technical Advice Note (TAN) 5.

10 Appendices

Appendix 1: Site photographic record



Large areas of buildings and hard standing



Amenity and improved grassland areas



Some horticultural planting



Small area of mixed woodland

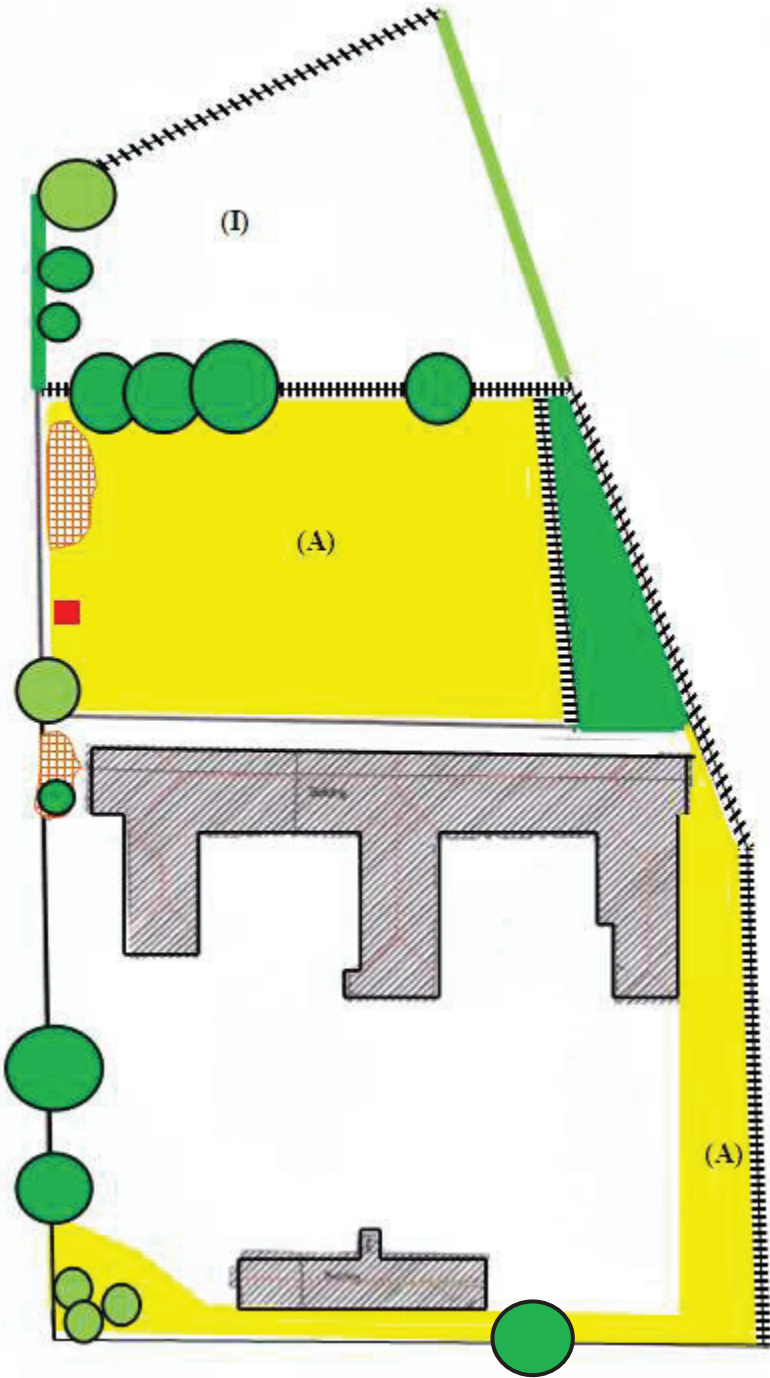


Some large, mature trees



Appendix 2: Review Table

Name	Task	Date
Chris Hall	Author	20.04.2017
Kate Williamson	Review	21.04.2017

Appendix 3: Phase 1 Habitat Map





Key

 Mixed Woodland  Amenity Grassland (I) Improved Grassland

 Scattered Trees (Native)  Scattered Trees (Non-native)

 Introduced Planting  Montbretia  Fence

 Native Species Poor Hedge  Non-Native Hedge