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ECOLOGICAL ASSESSMENT FOR

LAND AT CROESNEWYDD ROAD

WREXHAM

NORTH WALES

For JPH Architects

13th November 2015

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1. Introduction

An Ecological survey was undertaken on the 11th November 2015 in respect of land located at Croesnewydd Road, Wrexham, North Wales. The brief was to carry out a walkover survey and assess the ecological value of the site. The current proposal is for flats and houses with the associated infrastructure and access. Recommendations for mitigation, ecological enhancement and further surveys will be made as required.

2. Site Description

The site is located just off Croesnewydd Road with Pentre Bach forming the south elevation. The site comprises an area of rank vegetation with evidence of recent soil disturbance. In the north corner there is a large fenced pond which looks like it may take rainwater from the adjacent development. A stream with scrub/trees forms the southern and eastern boundary of the site providing an important ecological buffer zone.

3. Survey Methodology

An Ecological Survey was carried out following the standard methodology. This involved walking over the site classifying areas of land into a habitat type. Notes were made in respect of any habitats or features of interest and any sightings of protected or rare species. This included searching for evidence of badgers/other species and also inspecting any other features to establish their potential for roosting bats.

4. Consultations and Desk Study

Using the Natural Resource Wales interactive mapping facility there are no sites which receive statutory protection within or adjacent to the site. A COFNOD data search has been attached to this report.

The Wrexham Borough Council (LBAP) lists habitats and species which are considered to be of National, Local and County importance. In respect of this site and based on current information derelict land and aquatic corridors may apply along with otter.

5. Survey Results

The following habitats were recorded on the site.

5.1 Ruderal grassland

The majority of the site is ruderal grassland comprising species which are likely to have appeared following ground disturbance. The edges of the site are slightly better and can be described as semi-improved neutral grassland. Species include creeping buttercup *Ranunculus repens*, hogweed *Heracleum sphondylium*, common nettle *Urtica dioica*, broad leaved dock *Rumex obtusifolius*, mayweed *Matricaria sp.*, coltsfoot *Tussilago farfara* and *Epilobium* species.

5.2 Pond

This is a fenced out (no human access), attenuation pond which appears to have been constructed to take run-off from the adjacent development/road. The edges consist of tall herb species with some marginal vegetation (*Carex sp.*) beginning to develop.

5.3 Stream with scrub/trees

The buffer zone around the south and east boundary of the site forms an important area of habitat. A stream/ditch runs through both sections with adjacent scrub and trees. Species include hazel *Corylus avellana*, willow *Salix sp.*, hawthorn *Crataegus monogyna*, ash *Fraxinus excelsior* and dog rose *Rosa canina*. Dogs mercury *Mercurialis perennis*, greater celandine *Chelidonium majus* and male fern *Dryopteris filix-mas* are also relatively common. The buffer zones have rank grass edges.

Within the buffer zone areas there is a large and mature ash tree within the southern boundary facing the new houses. This is a large tree with dense ivy growth and areas of dead wood. This tree is likely to support features which will be used by species of bat, it will also be important to nesting birds and insects. The dead (or partially dead) ash tree within the eastern boundary supports a high level of dead wood, holes and splits. This tree may be used by bats and nesting birds.

The site plan is shown in Appendix 2 while the list of plant species is given in Appendix 1. The habitat descriptions are provided below.

5.4 Faunal species

Badgers

No evidence of badgers was found anywhere within the accessible areas of the site. No snuffle holes, latrines or areas of digging were found at the time of the survey. The site is low lying and potentially quite damp so it may not be ideal for badgers although it is probably used for foraging.

Bats

The site does not support any structures which would offer any potential roost sites for bats. There are at least two large trees which support features which could be used by bats including the large ash mentioned above. The trees were inspected from ground level although the size of some of them with leaves remaining meant that some areas were obscured.

Great crested newts and amphibians

There is a single large attenuation pond in the northern corner (discussed above) which appears to deal with roof and perhaps road run-off. There are no links with other ponds in the area and there are no available records for great crested newts. The pond is likely to support common amphibians such as frogs and toads and it may support other species of newt.

Otter

An otter was disturbed at the time of the survey. It was resting within the tall vegetation surrounding the pond but within the fence perimeter. It moved away towards the scrub and potentially the tunnel/culvert leading under the road. There is an otter record only 50 metres from the site in 2007 (another confirmed sighting) and another more recent one slightly further away in 2013. The stream running along the boundary on the eastern side is clearly being used by otters moving through the area. There is therefore clear potential for otters to use the cover of the buffer zone and pond area as a temporary rest site. Once the vegetation within the main field grows back up to a higher level the whole area may be used as cover.

Water voles

The stream along the eastern boundary is fairly fast flowing and perhaps not ideal for water vole, the ditch along the southern boundary is better with soft banks. The COFNOD data search has not revealed any records for this species although that does not mean that they are not present within the area.

Reptiles

There was no visible evidence of reptiles which could be seen during the walk-over survey and the habitat is not very suitable.

Hedgehog

No hedgehogs were seen at the time of the survey. They are however mainly nocturnal and it would be difficult to see them during this type of survey. There are various recent COFNOD records for them in the area so presence should be assumed, particularly within the buffer zone areas.

Birds

Birds will use the boundary hedgerows and also the trees for nesting and general shelter.

6. Evaluation and Legislation

All of the plants recorded during this survey are relatively widespread at both national and county scales. The list of plant species is not definitive and only represents those recorded while walking around the site.

The presence of a species protected under European or UK legislation is a material consideration when a planning authority is considering a development proposal which, if carried out would be likely to result in disturbance or harm to the species or its habitat. Section 74 (2) of the CroW Act 2000 (now updated by Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006 requires the publication of lists of habitats and species that are of principal importance for the purpose of conserving biological diversity. The list is regularly changed and updated and many bat species appear on it. NERC consolidates the requirements of the CROW Act in placing duties upon government agencies, including local authorities, to ensure the conservation of Biodiversity.

Badgers

Badgers are protected by the Protection of Badgers Act 1992. Under this Act it is illegal to destroy, damage or obstruct access to a sett or disturb a badger while it is using the sett. A sett is defined by the Act as any structure or place showing signs of current or recent occupation by a badger. Under the current interpretation of the Act a license is required for the following operations:

- a. Use of hand tools within 10 metres of a badger sett
- b. Use of light machinery within 20 metres of a badger sett
- c. Use of heavy machinery within 30 metres of a badger sett

No evidence of badgers was found at the time of the survey. They are however a mobile species and the situation could change during the period of any extant planning permission.

Bats

Bats and their roosts are protected by the Wildlife and Countryside Act (as amended) and the Conservation (Natural Habitats & c) Regulations 1994. The Habitats Directive has recently been superseded by The Conservation of Habitats and Species Regulations 2010 which came into force on the 1st April 2010. This makes it unlawful to harm, disturb, or destroy either bats or their roosts. Any work which may potentially disturb a roost (whether bats are present or not) may require a license.

To summarise it is illegal not only to intentionally kill, injure or take any bat but also too recklessly or intentionally damage, destroy or obstruct access to any place that a bat uses for shelter or protection, or to disturb a bat while it is occupying such a place. A roost is protected whether or not bats are present at the time. The reason for this is that bats have a tendency to remain loyal to certain roost sites, often over a long period of time.

There do not appear to be specific issues in respect of bats although the trees have only been inspected from ground level. Further inspection on an individual basis will be required if any trees are due to be removed, felled or crown reduced. The ivy growth on the large ash tree should remain with no attempt made to remove, kill or cut it back.

Great crested newts

The great crested newt *Triturus cristatus* is listed on Schedule 5 of the Wildlife and Countryside Act (as amended), and is afforded full protection under the terms of Section 9. This makes it an offence if any person:

9(1) “... *intentionally kills, injures or takes* [a great crested newt]”;

9(2) “... *has in his possession or control any live or dead* [great crested newt] *or any part of, or anything derived from such an animal*”; 9(4) “... *intentionally or recklessly (a) damages or destroys, or obstructs access to, any structure or place which* [a great crested newt] *uses for shelter or protection; or (b) disturbs any such animal while it is occupying a structure or place which it uses for that purpose*”;

9(5) “... (a) sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead [great crested newt], or any part of, or anything derived from, such an animal; or (b) publishes or causes to

be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things”.

Great crested newts are also afforded additional protection through inclusion on Schedule 2 (“European protected species”) of **The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)**, which transpose into British law the European Community’s **Habitats Directive (92/43/EEC)**. The Habitats Directive has recently been superseded by **“The Conservation of Habitats and Species Regulations 2010”**, this came into force on the 1st April 2010.

There do not appear to be any issues in respect of great crested newts within the site or for the land immediately adjacent. It would however be sensible to incorporate a SUDs scheme for the proposed development to safeguard amphibians in general. There may be potential within the grounds of the development to incorporate areas of habitat suitable for amphibians such as the creation of hibernacula using rubble and turf.

Otter

Otter is afforded strict protection under the Wildlife and Countryside Act 1981 (as amended) on Schedule 5 (sections 9(5)(a) (b) and 9 (4)(b)(c) and the Conservation of Habitats and Species Regulations 2010. The Conservation of Habitats and Species Regulations 2010 implements the European Union’s ‘Habitats Directive’ (Council Directive 92/43/EEC (a) on the Conservation of Natural Habitats and of Wild Fauna and Flora) in Great Britain and in summary makes it illegal to:

- intentionally kill, injure or capture or take an otter;
- intentionally or recklessly disturb an otter whilst it is occupying a holt;
- deliberately disturb an otter in such a way as to be likely to significantly affect the local distribution or abundance of otters or the ability of any significant group of otters to survive, breed, rear or nurture their young;
- possess or control (live or dead animal, part or derivative);
- deliberately (intentionally) or recklessly damage, destroy or obstruct access to a holt;
- deliberately (intentionally) or recklessly disturb an otter whilst it is occupying such a structure or place;
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Otter is a UK BAP Priority Species and is also included in the Local BAP for Wrexham.

The following Reasonable Avoidance Measures should be followed and it may be necessary to obtain a derogation license from Natural Resource Wales. This will depend on the proposed level of disturbance, site access points, material storage and other factors which are currently unknown.

- **No night time (or within the hours of darkness) working within 50 metres of the brook fall out points or within any adjacent wooded or scrub habitat.**
- **The use of heavy plant within unmade areas should be avoided to minimise potential disturbance to otters.**
- **Any excavation work left over-night should be securely fenced to prevent otters falling into the holes and being unable to escape.**
- **A derogation license from Natural Resource Wales may be required although this would depend upon the level of associated disturbance to potential rest areas.**
- **Prior to any works being undertaken it may be advisable to carry out a further visual inspection of the site in respect of otters.**

Water voles

Water vole is fully protected under Section 9 of the Wildlife & Countryside Act 1981(as amended) through its inclusion in Schedule 5. The legal protection makes it an offence to:

- intentionally kill, injure or capture or take a water vole;
- possess or control (live or dead animal, part or derivative);
- deliberately (intentionally) or recklessly damage, destroy or obstruct access to a breeding site or any structure or place used for shelter or protection by a water vole;
- deliberately (intentionally) or recklessly disturb a water vole whilst occupying such as structure or place, and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

It seems unlikely that the ditch supports watervole and the COFNOD data shows no records for the site.

Reptiles

All species of British reptile are protected against intentional killing, injury or sale under the Wildlife and Countryside Act 1981 (as amended). The Sand Lizard and the Smooth Snake are afforded a higher degree of protection under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 making it an offence to:

- Intentionally kill, take or injure these species of reptile.

- Damage, destroy or obstruct a place a these species use for breeding, resting, shelter or protection or to disturb these species in such a place.
- Possess or control these species alive or dead, or any part of them, or anything derived from them.
- Sell, offer for sale, advertise for sale or offer to these species, or a part of them or anything derived from them.
- Deliberately disturb or deliberately take or destroy the eggs of these species.

The distribution of Smooth Snakes and Sand Lizards is limited to heathland habitats in Surrey, Dorset, Hampshire and Sussex. The Sand Lizard is also known to occur on sand dune habitats in Merseyside and has recently been introduced to some areas of North Wales.

Licenses can be issued in order to allow activities that would constitute an offence under the legislation. Licenses can be issued for specific purposes including scientific study, photography, conservation management and development.

In England and Wales a development license must be obtained from Natural England or the Welsh Government before undertaking any works that will affect Sand Lizards or Smooth Snakes or their habitat. A license is not required to carry out surveys or mitigation for other reptile species.

The site does not appear to have any issues in respect of reptiles but care should be taken when moving any piles of wood/material/cuttings etc.

Hedgehogs

Hedgehogs have been recorded in the area and they are a UK BAP Priority Species.

Any clearance of the site will have to be carried out in a careful manner to ensure that any hedgehogs present remain unharmed. Open trenches and footings should be inspected on a daily basis during the construction period, particularly first thing in the morning. The contractors should be made aware that hedgehogs are in the area and that attention should be paid towards avoiding harming this species.

Nesting birds

All breeding birds are protected under Section 1(1) and 1(2) of the Wildlife and Countryside Act 1981, as amended. This makes it an offence to damage, disturb, or obstruct access to nests during the bird breeding season (generally March to August).

Birds will use the scrub and trees so any planned removal for access or otherwise will have to be undertaken between October and February inclusive (to avoid the nesting season).

7. Impact assessment, Mitigation and Enhancement Recommendations

At the present time the proposal is for flats and residential housing with associated infrastructure and access.

- Based on the level of current information it would appear that the main impacts to the habitat would be the loss of ruderal grassland.
- At the present time it appears that there are no issues with badgers. It would be advisable to recheck the site prior to the start of any works in case the situation has changed.
- It may be necessary to obtain a license from NRW in respect of potential disturbance to otter. This will depend on various factors which have been outlined above. Further discussion regarding access, type of machinery, storage of building materials and drainage will be required.
- Hedgehogs are likely to appear within the site and measures should be taken to ensure that workers inspect holes and trenches each day. This should be made clear to the site manager.
- Any removal of mature trees will require further survey work in respect of bat species. This particularly applies to the large ash tree and the partially dead tree further along within the site perimeter.
- Any removal of the buffer zone/scrub require bat activity survey work to be undertaken.
- The development of the site should not significantly impact upon birds as long as the majority of the trees and boundary hedgerows remain. All nesting birds are protected by the Wildlife and Countryside Act (as amended) and no work should take place (particularly clearance of scrub hedgerow/trees) which may affect nesting birds between March and September inclusive.

8. References

Rose, F. (1989) *Grasses, Sedges and Ferns* Viking Press

Stace, C. (2005) *New Flora of the British Isles* Cambridge University Press, Cambridge.

Appendix 1 – Species list

Trees and shrubs	
Ash	<i>Fraxinus excelsior</i>
Blackthorn	<i>Prunus spinosa</i>
Bramble	<i>Rubus agg.</i>
Cherry	<i>Prunus sp.</i>
Dog rose	<i>Rosa canina</i>
Elder	<i>Sambucus nigra</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Holly	<i>Ilex aquifolium</i>
Sycamore	<i>Acer pseudoplatanus</i>
Willow	<i>Salix sp</i>

Herbs	
Annual meadow grass	<i>Poa annua</i>
Broad leaved dock	<i>Rumex obtusifolius</i>
Broad leaved plantain	<i>Plantago major</i>
Chickweed	<i>Stellaria media</i>
Cleavers	<i>Galium aparine</i>
Cocksfoot	<i>Dactylus glomerata</i>
Coltsfoot	<i>Tussilago farfara</i>
Common bent	<i>Agrostis capillaris</i>
Common chickweed	<i>Stellaria media</i>
Common nettle	<i>Urtica dioica</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Creeping buttercup	<i>Ranunculus repens</i>
Creeping thistle	<i>Cirsium arvense</i>
Curled dock	<i>Rumex crispus</i>
Daisy	<i>Bellis perennis</i>
Dandelion	<i>Taraxacum officinale</i>
Dogs mercury	<i>Mercurialis perennis</i>
False oat grass	<i>Arrhenathrum elatius</i>
Greater celandine	<i>Chelidonium majus</i>
Hogweed	<i>Heracleum sphondylium</i>
Ivy	<i>Hedera helix</i>
Hairy bittercress	<i>Cardamine hirsuta</i>
Lords and ladies	<i>Arum maculatum</i>
Male fern	<i>Dryopteris felix-mas</i>
Mayweed	<i>Matricaria sp</i>
Perennial rye grass	<i>Lolium perenne</i>
Ribwort plantain	<i>Plantago lanceolata</i>

Ragwort	<i>Senecio jacobaea</i>
Vetch	<i>Vicia sp</i>
White dead nettle	<i>Lamium album</i>
Yarrow	<i>Achillea millefolium</i>
Yorkshire fog	<i>Holcus lanatus</i>

Appendix 2 – Site plan

