

The Orchards,
Ragshill, Bangor-on-Dee, LL13 0BD

*Proposed demolition of existing shippon and
construction of extension to existing dwelling.*

Preliminary Ecological Appraisal

For: Mr and Mrs David Gibbs
(Agent: Paul Whale, Studio83)

April 2014

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1.0 INTRODUCTION

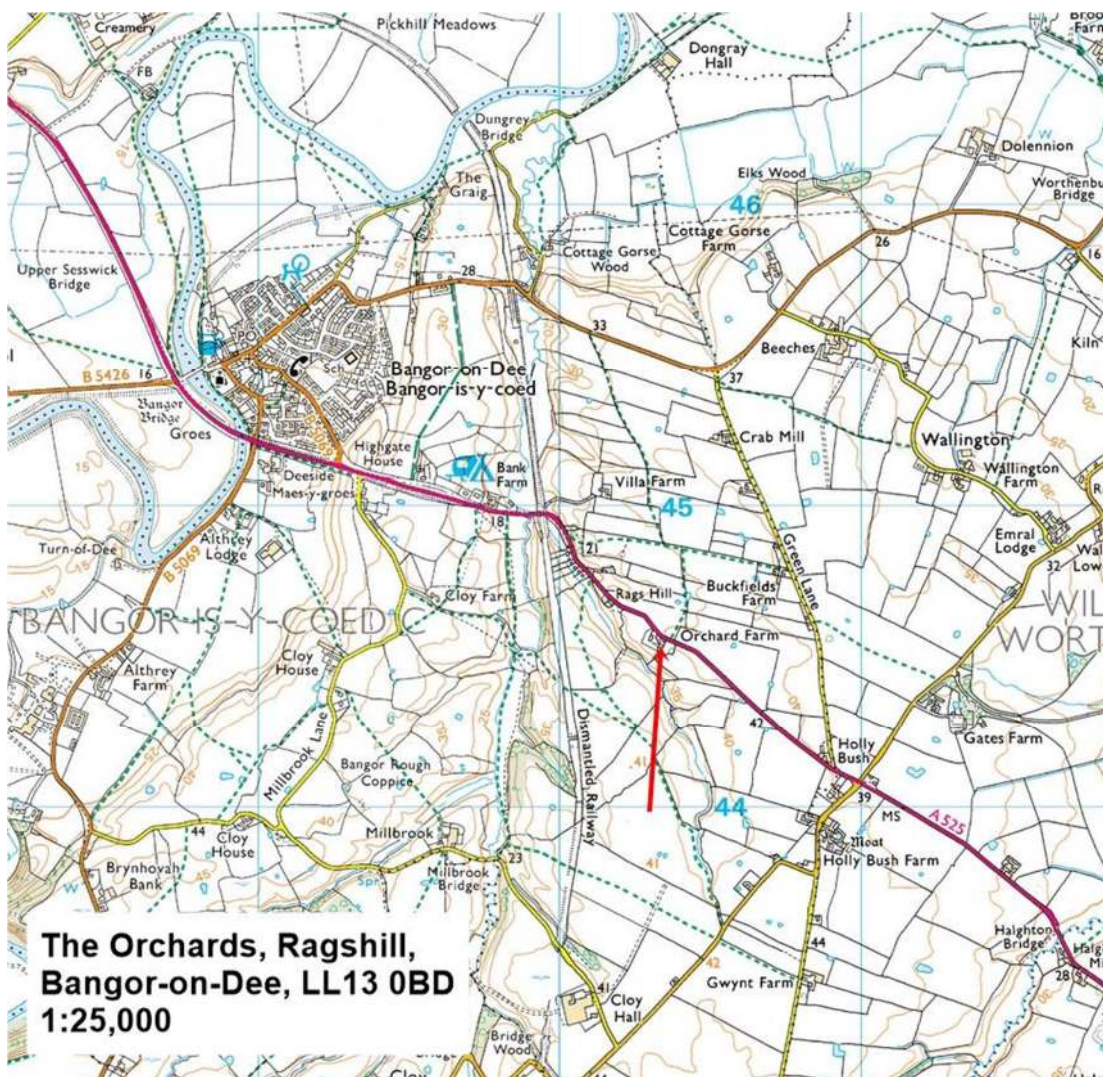
1.1 Background - Gerald Longley

Gerald Longley MCIEEM, Ecological Consultant, has been commissioned to undertake a Preliminary Ecological Appraisal for a proposed new development at The Orchards, Ragshill, Bangor-on-Dee, LL13 0BD (Grid reference SJ403445). He has two decades of experience of wildlife surveying and, prior to working as an independent ecological consultant, held posts as Conservation Officer with Montgomeryshire Wildlife Trust and Head of Shrewsbury Countryside Unit.

1.2 Background – This Survey

The applicant wishes to demolish an existing shippon on the site and construct an extension to the adjacent dwelling (Planning ref. P\2014\0223). The request for this work comes from their and the planning team's need to ensure that any valuable habitats at the site and the needs of any wildlife using the site and the nearby relevant locality are fully taken into account in the proposed development. Possibly relevant wildlife such as amphibians, birds, bats, and badgers are protected or biodiversity action plan species. A full citation of the law with regard to relevant protected or action plan wildlife is given in Appendix 1.

1.3 Site location



Grid reference SJ403445



1.4 Aims of this Preliminary Ecological Appraisal

- To identify existing sites designated for their nature conservation interest in the survey area, or relevantly close to it, and assess any potential impact.
- To identify any existing records of important species recorded in or relevantly close to, the survey area and assess any potential impact.
- To identify and map habitat types and species in the survey area.
- To evaluate the nature conservation importance of recorded species and habitats.
- To identify possible ecological constraints on the proposed development and management of the survey area.
- To recommend any further survey work, required mitigation measures, compensation or enhancement for wildlife as part of the planning process.

The Orchards, Ragshill, Bangor-on-Dee, LL13 0BD

Proposed demolition of existing shippon and construction of extension to existing dwelling.



Preliminary Ecological Appraisal

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Site surveys were undertaken by Gerald Longley, MCIEEM, and Mary Thornton, MCIEEM, on 28 April 2014. The site was to the southeast of Bangor-on-Dee, adjacent to the A525. There was a residential property, The Shieling, immediately to the west and both properties were surrounded by pasture and hay/silage fields with hedges, patches of trees and small field ponds.

A 1km buffer desk study for sites and wildlife records was carried out.

The main relevant findings were:

- Nearest SSSIs: River Dee Corridor SSSI and SAC, approx. 1.3km west; Cloy Brook Pastures SSSI, approx. 2km south.
- Pond on site, approx. 25m from proposed construction zone, and another on adjacent land, approx. 90m from proposed construction zone.
- Nearest great crested newt record approx. 1.3km WNW (2008). The area further to the northwest around Wrexham is noted as a hotspot for great crested newt.
- No reptile records were found in the 1km buffer.
- Common pipistrelle bats have been recorded within 1km northwest of site (1993).
- No records for otter, water vole, dormouse or badger found in the 1km buffer.

No records of protected species, sites or habitats were found for the proposed development site itself.

Most of the site was occupied by the garden of The Orchards including a large pond. The construction zone itself was occupied by the shippon and hard standing of a patio. Habitats on the site were hedgerows, amenity grassland with scattered trees, standing open water and introduced shrubs.

The mature, mainly hawthorn, hedges on the site boundaries and the veteran fruit trees were of ecological value. The plans show that hedgerows and trees on site will be unaffected by the proposed development.

Both the pond on the site and the pond next door at The Shieling were of high ecological value with good quality water and a range of water depths. The Shieling pond had very good emergent vegetation with a range of plant species. Plans show that neither pond will be affected by the proposed development. The grassland and shrub beds were of low ecological value. Longer grass around the Orchard pond was of some value as terrestrial habitat for amphibians, although this was limited in extent on the west side of the pond.

Both the Orchard and Shieling ponds and surrounding grassland provided good breeding habitat for common frog and toad. Smooth and palmate newts were also recorded. Both ponds had a Great Crested Newt Habitat Suitability Index of 'excellent'. A great crested newt egg was found in the Shieling pond and two adult great crested newts were recorded by torching in the Orchard pond. The presence of great crested newts on the site is an ecological constraint on the proposed development and appropriate precautionary working methods must be followed.

(continued)

(continued) Report summary



The Orchards, Ragshill, Bangor-on-Dee, LL13 0BD

Proposed demolition of existing shippon and construction of extension to existing dwelling.

Preliminary Ecological Appraisal

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The only reptile likely to be found on the site was grass snake, either in the pond or in the pile of grass clippings. No reptiles were recorded during the survey and it is considered that there are no ecological constraints relating to reptiles.

No direct or indirect signs of bats were recorded during the survey. The building proposed for demolition did not offer roosting sites attractive to bats. It is considered that there are no ecological constraints relating to bats for the proposed development.

No evidence of water vole, otter, dormouse or badger using the site was found. Habitats on the site were not suitable for them and it is considered that they are not using the site.

Three disused swallow nests were recorded in the shippon. Two of these were being used by other birds, probably robin or wagtail. Works should not take place while birds are nesting, or they must be safely excluded prior to this period in the year works are to start. Provision should be made to replace the lost nest sites.

See in particular section 4.2 and Table 3 in the report where the effects on Ecological Receptors are considered.

Hedgerows, trees and the pond on the site are of ecological value but will be unaffected by the proposed development. The presence of great crested newt on the site and in the nearby pond on adjacent land is an ecological constraint and a great crested newt precautionary working method statement should be followed.

It is recommended that:

1. All works on site take into account the "Ecological principles to follow in this development" set out in appendix 7.4.
2. To avoid possible injury or disturbance to great crested newts during construction works, a Reasonable Avoidance Measures working method is followed. This is set out in appendix 7.5. Provided this working method is followed, a development licence from Natural Resources Wales is not required for development to proceed.
3. Demolition works must not take place once birds are nesting, usually in the period March to September, or they must be safely excluded prior to this period in the year works are to start.
4. Provision is made to replace the lost bird nesting sites. Three Schwegler 10 swallow nest boxes should be placed inside the existing garage leaving a distance of at least 6cm between the top of the nest and the ceiling and at least 1m apart. Two 2H Schwegler robin nest boxes should be placed on the walls of the new extension or on the existing buildings to compensate for the loss of nesting places.

2.0 METHODOLOGY

2.1 Desk Study

The 1:25000 Ordnance Survey map covering the site, and aerial photos accessed from the internet, were scrutinised to initially assess the wildlife value of the proposed development site and surrounding habitat at a crude level. This looked for any semi-natural habitat that may be of value to wildlife, for example ponds, hedges, parkland, wetland, and woodland with interconnecting habitat links. A desk study was made on the NBN Gateway and MAGIC websites for species records within a 1km radius of the site, including UK BAP and Wrexham LBAP protected species and habitats, and sites of national and local nature conservation importance.

2.2 Site Surveys

The site surveys were undertaken by Gerald Longley, MCIEEM, and Mary Thornton, MCIEEM, on 28 April 2014.

The following site surveys were undertaken:

- An 'extended' Phase 1 habitat survey, as per JNCC (2010) of the site.
- A habitat suitability evaluation, as per ARG UK Advice Note 5 (2010), and preliminary search (egg search and torching) of the two ponds on and adjacent to the site for great crested newts.
- Incidental records of amphibians, reptiles, mammals, birds and other species were made during the survey.

2.3 Constraints of this survey

As with all wildlife surveys conducted, the data collected is only a representation of the habitats, species and species presence evidence found during the actual date/s of the survey/s. There are other seasons and many species are mobile or transitory. There were no constraints. The survey date of 28 April 2014 was satisfactory. The ideal time to conduct preliminary, extended Phase 1 appraisals is the period May to September, when many more species are active and non-woody plants are clearly more evident. Great crested newts are active in breeding ponds from mid-March. It is considered that the survey date was sufficient to cover the needs of a preliminary survey adequately.

3.0 RESULTS

3.1. Desk Study

A 1km buffer desk study for sites and wildlife records on the NBN Gateway and MAGIC websites revealed that there were no coincident wildlife sites or SSSIs. The nearest SSSIs were the River Dee Corridor SSSI, approximately 1.3km west at the nearest point, and Cloy Brook Pastures SSSI, approximately 2km south of the site. The River Dee is also a Special Area of Conservation (SAC).

There was a pond on the site, approximately 25m from the proposed construction zone, and another on adjacent land, approximately 90m from the proposed construction zone. Three other ponds were shown within 250m of the site on the 1:25,000 OS map. All are on the opposite side of the busy A525 and at least one appeared from aerial photographs to have been filled in. They were not investigated further. A further seven ponds were shown within 500m of the site. Three of these were to the north, across the A525, and the remaining four to the south and southeast of the site. They were not investigated further.

The nearest great crested newt record was approximately 1.3km WNW of the site (2008). The area further to the northwest, around Wrexham, is noted as a hotspot for great crested newt.

No reptile records were found in the 1km buffer.

Common pipistrelle bats have been recorded within 1km northwest of the site (most recent record 1993).

No records for otter, water vole, dormouse or badger were found in the 1km buffer. Otter have been recorded approximately 1.8km northwest of the site on the River Dee (2002).

See appendix 7.2 for full details of the records.

No records of protected species, sites or habitats were found for the proposed development site itself.

3.2 Site Surveys

On 28 April 2014 it was a dry, still and warm (approx. 14°C) evening. Access was available to all areas required for the survey. See appendix 7.3 for a Phase 1 survey map and list of species. The site was to the southeast of Bangor-on-Dee, adjacent to the A525. There was a residential property, The Shieling, immediately to the west and both properties were surrounded by pasture and hay/silage fields with hedges, patches of trees and small field ponds.

Habitats

Most of the site was occupied by the garden of The Orchards including a large pond. The construction zone itself was occupied by the shippon and hard standing of a patio.

Hedgerows (Phase 1 habitat codes J2.1.2 intact hedge and J2.2.2 defunct hedge)

Mature hedgerows, mainly of hawthorn, with occasional sycamore, plum and honeysuckle, formed the north, west and part of the east, boundaries of the site. The remains of a hawthorn hedge with fruit trees planted along its line was along part of the south boundary and a short stretch of young hedge had been planted along part of the east boundary, next to the existing section of mature hedge.

Scattered broadleaved trees (Phase 1 habitat code A3.1)

Trees planted throughout the main garden area were largely veteran fruit trees including apple and damson, presumably the remains of the orchard the property was named after. Other trees on the site included young rowan and weeping willow.

Standing open water (Phase 1 habitat code G1)

There was a large, butyl lined pond on the site and a second, slightly smaller, clay lined pond in the grounds of the adjacent property, the Shieling. Water quality in both ponds was good apart from a slight oily film on the surface of the Shieling pond. This pond was fed by drainage from hardstanding around the house. Water in both ponds was clear and aquatic invertebrates, including dragonfly larvae and water boatmen were recorded.

The pond on the site (Orchard pond) had some marginal vegetation including hard rush, yellow flag, branched burr-reed and bulrush. It had virtually no emergent or submerged vegetation, except for some ornamental water lilies, due to the presence of grass carp. The Shieling pond had little marginal vegetation at the south end but good emergent vegetation with a stand of bulrush and water plantain at the north end. Broad-leaved pond weed, small patches of Australian swamp stonecrop and curly waterweed were also recorded.

Both ponds were largely surrounded by amenity grass. Grass around the Shieling pond was mown short up to the edge of the pond. A margin of longer grass, approximately 1 – 1.5m wide, had been left around the edges of the Orchard pond. Some of the Orchard pond edges were shrub planting, gravel or stone beach areas and stone or log revetment.

The Orchard pond included a range of depths from a very shallow area on the east side to approximately 2.5 – 3m in the centre.

Amenity grassland (Phase 1 habitat code J1.2)

Most of the site was short, frequently mown, amenity grassland with occasional daisy and dandelion.

Introduced shrub (Phase 1 habitat code J1.4)

There were areas of shrub planting on the east and north sides of the pond and beds within the lawn area.

Buildings (Phase 1 habitat code J3.6)

The building proposed for demolition was a brick built shippon, or barn, with a pitched asbestos sheet roof with wooden rafters and battens. It was falling into disrepair and one section of roof had fallen in leaving a hole. Internal walls were also of brick.

Amphibians

Common toad tadpoles and spawn were recorded in the Orchard pond.

Great crested newt

Under ecological planning guidelines, the proposal is categorised as a “minor” one, i.e. to build less than 10 houses. In assessing minor proposals for possible effects on great crested newts, any pond within 100m should be investigated. Two ponds were found within 100m: the Orchard pond on the site was approximately 25m from the proposed construction zone and the Shieling pond was approximately 90m from the proposed construction zone on the far side of the neighbouring house.

An assessment of both ponds was carried out following the ARG Great Crested Newt habitat suitability index. The results are in table 1.

Table 1: Great crested newt habitat suitability index results for relevant ponds within 100m of The Orchards.		
28 April 2014 www.geraldlongley.co.uk		
HSI FACTOR	pond 1 (Orchard pond) SJ40374451	pond 2 (Shieling pond) SJ40264457
1	1	1
2	1	1
3	0.9	1
4	1	1
5	1	1
6	1	1
7	0.67	1
8	1	1
9	0.67	0.33
10	0.35	0.5
Product	0.1414035	0.165
HSI Score	0.8223	0.8351
HSI Category	Excellent	Excellent

The overall scores of 0.8223 and 0.8351 give both ponds habitat suitability index categories of 'excellent'.

Smooth newts were recorded in the Shieling pond during the survey and eggs of both great crested newt and smooth/palmate newt were found on water plantain. Smooth, palmate and great crested newts were recorded by torching in the Orchard pond. Details are in table 2.

Table 2: Newt numbers recorded by torching in Orchard pond	
28 April 2014 www.geraldlongley.co.uk	
Great crested	2
Smooth	25
Palmate	2

The site also contained piles of bricks that could be used as refuges by newts, although no newts were found. An area of stones on the east shore of the Orchard pond also provided potential refuges for newts.

Reptiles

No reptiles were found during the survey.

Bats

The building proposed for demolition was searched but no direct or indirect signs of bats were recorded. No other direct or indirect signs of bats were found during the survey.

Otters, water voles, dormice and badgers

No signs of otter, water vole, dormouse or badger were found at the site.

Birds

Swallows were recorded nesting in the garage adjacent to the building proposed for demolition. Three disused swallow nests were recorded in the shippon. Two of these were being used by grass nest building birds, probably robin or wagtail.

Lesser whitethroat, goldfinch and blackcap were recorded singing in the hedgerows on the boundaries of the site.

Invasive species

No invasive species, as defined by the Wildlife and Countryside Act 1981 (as amended), were recorded on the site itself. Australian swamp stonecrop was recorded in the Shieling pond.

4.0 DISCUSSION AND INTERPRETATION

4.1 Appraisal - Development plans & ecology baseline

The development proposal covers work to demolish the existing shippon/barn on the site and construct an extension onto the adjacent dwelling on the site. The proposed extension is wholly within the existing footprint of the shippon and patio area.

4.2 Potential effects on ecological receptors

Ecological receptors are habitats or species which may show some change in population levels at a site in response to the implementation of the desired change or development. Change/s may be neutral, minor, negligible, negative or strongly negative. They can also be positive. The more notable ecological receptors and any predicted impacts are summarised below in Table 3.

Habitats

Hedgerows

The mature, mainly hawthorn, hedges on the site boundaries were of ecological value, providing habitat links with the surrounding landscape and nesting and feeding habitat for small birds including summer migrants such as blackcap and lesser whitethroat. The plans show that the hedges on site will be unaffected by the proposed development.

Scattered broadleaved trees

The veteran fruit trees were of ecological value. Cracks, holes and crevices in bark and branches provided habitat for insects. Blossom provided nectar for insects and fruit provided food for insects, birds and small mammals. Plans provided show that trees on the site will be unaffected by the proposed development.

Standing open water

Both the pond on the site and the pond next door at The Shieling were of ecological value with good quality water and a range of water depths. The Shieling pond had very good emergent vegetation with a range of plant species. This pond would be enhanced by regular removal and disposal of the non-native, invasive Australian swamp stonecrop to prevent it spreading. Plans show that neither pond will be affected by the proposed development.

Amenity grassland and Introduced shrub

The grassland and shrub beds were of low ecological value. Longer grass around the Orchard pool was of some value as terrestrial habitat for amphibians, although this was limited in extent to a band approximately 1-1.5m wide on the west side of the pond.

Amphibians

Both the Orchard and Shieling ponds and surrounding grassland provided good breeding habitat for common frog and toad. Smooth and palmate newts were also recorded.

Great crested newt

Both the Orchard and Shieling ponds were categorised as 'excellent' for great crested newts by the ARG Great Crested Newt Habitat Suitability Index. A great crested newt egg was found in the Shieling pond confirming it as a breeding pond. Two adult great crested newts were recorded by torching in the Orchard pond. Breeding was not confirmed in this pond. The presence of great crested newts on the site is an ecological constraint on the proposed development.

The proposed development will not result in destruction of or damage to either of the ponds nor the grassland immediately adjacent to them. The new building will be entirely within the

footprint of the existing shippon and patio so no newt foraging habitat will be lost. There is the potential for individual newts to be harmed or killed during construction if they cross the construction zone or find shelter in excavations, stored building materials or piles of rubble during the works.

With this background, and following consultation with NRW and the Wrexham Ecology Team, it is considered that following Reasonable Avoidance Measures (RAMs) would be appropriate and proportionate to protect individual great crested newts from harm during the proposed works. A RAMs working method statement is presented as appendix 7.5.

Reptiles

The only reptile likely to be found on the site was grass snake, either in the pond or in the pile of grass clippings. No reptiles were recorded during the survey and no reptile records were found in the buffer zone. It is considered that there are no ecological constraints relating to reptiles.

Bats

No direct or indirect signs of bats were recorded during the survey. Trees on the site did not contain cracks or crevices suitable for roosting bats and the building proposed for demolition was draughty with gaps in the roof and walls and did not offer roosting sites attractive to bats. It is considered that there are no ecological constraints relating to bats for the proposed development.

Water vole, otter, dormouse and badger

No evidence of these species using the site was found. Habitats on the site were not suitable for them and it is considered that the site is not being used by them.

Birds

Three disused swallow nests were recorded in the shippon. Two of these were being used by grass nest building birds, probably robin or wagtail. Works should not take place while birds are nesting, usually in the period March to September, or they must be safely excluded prior to this period in the year works are to start. Provision should be made to replace these lost nest sites.

Invasive species

No invasive species were recorded on the development site and no negative impacts are anticipated.

Table 3: Summary of potential effects on ecological receptors

Ecological Receptor	Ecological Value	Potential Effects/Impact	Proposed mitigation or ecological enhancement
Habitats: hedgerows	HIGH	NEGLIGIBLE Plans show hedgerows will be unaffected by proposed development.	
Habitats: amenity grassland and introduced shrub	LOW	NEGLIGIBLE	
Habitats: scattered broad-leaved trees	MEDIUM	NEGLIGIBLE Plans show trees will be unaffected by proposed development.	
Habitats: standing open water (pond)	HIGH	NEGLIGIBLE Plans show pond will be unaffected by proposed development.	
Reptiles	LOW	NEGLIGIBLE	Follow 'Ecological Principles' in appendix 7.4
Amphibians	HIGH	NEGATIVE Possible injury or disturbance of all amphibians, particularly great crested newts during development. Possible damage or destruction of places used by GCN as shelter.	Follow GCN RAMs method statement in appendix 7.5.
Bats	LOW	NEGLIGIBLE	Follow 'Ecological Principles' in appendix 7.4
Birds	MEDIUM	MINOR NEGATIVE Small loss of swallow nesting sites now being used by other birds in building to be demolished.	Time demolition to avoid nesting season (March – Sept). Replace lost nest sites with bird boxes.
Invasive species	-	-	-
Otters	-	-	-
Dormice	-	-	-
Water voles	-	-	-
Badgers	-	-	-
Insects/other species	-	-	-

Hedgerows, trees and the pond on the site are of ecological value but will be unaffected by the proposed development. The presence of great crested newt on the site and in the nearby pond on adjacent land is an ecological constraint and a great crested newt precautionary working method statement should be followed.

4.3 Proposed preliminary mitigation and enhancement

No other preliminary mitigation is required.

5.0 RECOMMENDATIONS

It is recommended that:

1. All works on site take into account the “Ecological principles to follow in this development” set out in appendix 7.4.
2. To avoid possible injury or disturbance to great crested newts during construction works, a Reasonable Avoidance Measures working method is followed. This is set out in appendix 7.5. Provided this working method is followed, a development licence from Natural Resources Wales is not required for development to proceed.
3. Demolition works must not take place once birds are nesting, usually in the period March to September, or they must be safely excluded prior to this period in the year works are to start.
4. Provision is made to replace the lost bird nesting sites. Three Schwegler 10 swallow nest boxes should be placed inside the existing garage leaving a distance of at least 6cm between the top of the nest and the ceiling and at least 1m apart. Two 2H Schwegler robin nest boxes should be placed on the walls of the new extension or on the existing buildings to compensate for the loss of nesting places.

6.0 REFERENCES

1. The UK Biodiversity Action Plan. Joint Nature Conservancy Council. Peterborough, Belmont Press. ANON (2004 and later amended)
2. Wrexham Biodiversity Action Plan.
http://www.wrexham.gov.uk/english/planning_portal/biodiversity/wxmbap.htm
3. Handbook for Phase 1 Habitat Survey. A technique for environmental audit. JNCC (2010)
4. Institute of Ecology and Environmental Management (IEEM) Guidelines for Preliminary Ecological Appraisal (2011)
5. Mitchell-Jones, AJ. Bat mitigation guidelines. English Nature (2004).
6. Bat Surveys – Good Practice Guidelines 2nd Edition Bat Conservation Trust BCT (2012).
7. Planning application requirements (Local), Template or Biodiversity and Geological Conservation, Validation Checklists. ALGE (2007).
8. Eaton MA, Brown AF, Noble DG, Musgrove AJ, Hearn R, Aebischer NJ, Gibbons DW, Evans A and Gregory RD (2009) Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. British Birds 102, pp296–341.
9. Rose, F. The Wildflower Key (revised 2006).
10. Great crested newt mitigation guidelines. English Nature (now Natural England) (2001).
11. Natural England, Standing Advice Species Sheet: Great crested newt, (undated)
12. ARG UK (2010). ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. Amphibian and Reptile Groups of the United Kingdom.

7.0 APPENDICES

7.1 Relevant species legislation

Birds - Legislation

Under Section 1 of the Wildlife and Countryside Act 1981 it is an offence to intentionally kill, injure, handle or remove any wild bird (with the exception of a few pest species); take or damage a nest whilst in use or being built; and take or destroy eggs. A person is not guilty of any offence if their action was the incidental result of a lawful activity and could not have been reasonably avoided.

A higher level of protection is afforded to those birds listed in Schedule 1 of the Act. It is an offence to disturb Schedule 1 species whilst it is building or sitting on a nest, in addition to damaging or destroying their nests or eggs.

It is not an offence to disturb non-Schedule 1 species whilst they are building a nest or sitting on it. However, an offence may be committed if the bird is driven away from a nest by prolonged disturbance which results in the failure of eggs or death of dependent young.

In essence, the relevance of this is that any tree, hedge or similar that could have birds nesting in it can only be removed in the period October to February (inclusive) unless subject to additional onsite survey immediately prior to its intended removal by a suitably qualified ecologist.

Amphibians and Reptiles - legislation

European Protected Species

(i.e. smooth snake, sand lizard, natterjack toad and great crested newt and marine turtles) are protected via a combination of Regulation 39 of the Conservation of Habitats and Species Regulations 2010, and via s. 9(4) b & c and s. 9(5) of the Wildlife & Countryside Act 1981 (as amended) against:

- (a) *deliberate* capturing, injuring or killing
- (b) *deliberate* disturbance in such a way as to be likely to significantly affect—
 - (i) the ability of any significant group of animals of that species to survive, breed, or rear or nurture their young; or
 - (ii) the local distribution or abundance of that species;
- (c) *deliberate* taking or destroying the eggs of such an animal; or
- (d) (i) damaging or destroying a breeding site or resting place of such an animal and/or
 - (ii) *intentionally or recklessly* -
 - (a) disturbing any such animal while it is occupying a structure or place which it uses for shelter or protection; or
 - (b) obstructing access to any structure or place which any such animal uses for shelter or protection.”
- (e)* any person—
 - (i) having in their possession or control;
 - (ii) transporting;
 - (iii) selling or exchanging; or
 - (iv) offering for sale or exchange, any
 - (a) live or dead animal or part of an animal—
 - (i) which has been taken from the wild; and
 - (ii) which is of a species or subspecies listed in Annex IV(a) to the Habitats Directive; and
 - (b) part of, or anything derived from, such an animal or any such part of an animal;

unless the animal from which the part or the thing in question is derived, was lawfully taken from the wild (i.e. taken from the wild in the European Union without contravention of appropriate domestic legislation and before the implementation date of the Habitats Directive (in that Country e.g. 1994 in UK) or if it was taken from elsewhere). * This section also covers all other species listed on Annex IV of the Habitats Directive.

The legislation & section numbers, and amendments:

Regs 39 of Conservation (Natural Habitats, etc.) Regulations 1994

http://www.opsi.gov.uk/SI/si1994/Uksi_19942716_en_1.htm as amended by Reg 13 of The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2010

http://www.opsi.gov.uk/si/si2010/uksi_20101843_en.pdf

Section 9 (4) a-c only of The Wildlife & Countryside Act 1981 <http://www.jncc.gov.uk/page-3614> as amended:-

Inclusion of Marine turtles on Sch 5 were inserted by article 2 of the Wildlife and Countryside Act 1981 (Variation of Schedules) Order 1988, S.I.1988/288.

http://www.opsi.gov.uk/si/si1988/Uksi_19880288_en_1.htm

Inclusion of Reckless disturbance via Section 9(4) of the Wildlife and Countryside Act 1981 (c.69) was amended by section 81(1) of, and paragraph 5(a) of Schedule 12 to, the Countryside and Rights of Way Act 2000 (c.37). <http://www.opsi.gov.uk/acts/acts2000/20000037.htm>

Full amendment of Section 9(4) via Reg 62 (f) of The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2010 http://www.opsi.gov.uk/si/si2010/uksi_20101843_en.pdf

Amendment of Sch 5 to include EPS only with regards to section 9(4)(b) and (c) and (5) only through Reg 62 of The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2010 http://www.opsi.gov.uk/si/si2010/uksi_20101843_en.pdf – with effect 21 August 2010

Widespread reptiles and amphibians

Reptiles (adder, grass snake, common lizard and slow-worm) and amphibians (common frog, common toad, smooth newt, palmate newt)

Reptiles only (adder, grass snake, common lizard and slow worm) are protected via part of S 9(1) of the Wildlife & Countryside Act 1981 (as amended) against:

intentional killing and injuring (note the provision in section 9(1) of Wildlife & Countryside Act 1981 prohibiting “taking” does not apply to reptiles)

Both reptiles (adder, grass snake, common lizard and slow worm) and amphibians (common frog, common toad, smooth newt, palmate newt) are protected via part of S 9(5) of the Wildlife & Countryside Act 1981 (as amended) against:

- (i) selling, offering or exposing for sale, or having in possession or transporting for the purpose of sale, any live or dead wild animal or any part of, or anything derived from, such an animal; or
- (ii) publishing or causing to be published any advertisement likely to be understood as conveying buying or selling, or intending to buy or sell, any of those things.

The legislation relates only to ‘wild animals’, but in any proceedings the animal in question shall be presumed to have been a wild animal unless the contrary is shown.

This protection is solely through the Wildlife & Countryside Act 1981 as amended and defences and licensing provisions are provided within that Act.

The legislation & section numbers, and amendments:

Section 9 (4) a-c only of The Wildlife & Countryside Act as amended:-

Inclusion of common lizards, grass snakes, slow worms on Sch. 5 were inserted by article 2 of the Wildlife and Countryside Act 1981 (Variation of Schedules) Order 1988, S.I.1988/288. http://www.opsi.gov.uk/si/si1988/Uksi_19880288_en_1.htm

Inclusion of Adder: article 2 of the Wildlife and Countryside Act 1981 (Variation of Schedules 5 and 8) Order 1991 S.I. 1991/361 http://www.opsi.gov.uk/SI/si1991/Uksi_19910367_en_1.htm

Bats – Legislation

All British bat species receive legal protection in the United Kingdom. The Wildlife and Countryside Act 1981 (WCA) (as amended) transposes into UK law the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). The 1981 Act was amended by the Countryside and Rights of Way (CROW) Act 2000 and the more recent Conservation of Habitats and Species Regulations 2010. All British bat species are listed under Schedule 5 of the 1981 Act, and is therefore subject to the provisions of Section 9, which makes it an offence to:

- Intentionally kill, injure or take a bat [Section 9(1)];
- Possess or control any live or dead specimen or anything derived from a bat [Section 9(2)]
- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection [Section 9(4)(b)];
- Intentionally or recklessly obstruct access to any structure or place which a bat uses for shelter or protection [Section 9(4)(c)]
- Sell, offer for sale, possess or transport for the purpose of sale or publish advertisements to buy or sell a bat [section 9(5)]

Bats are also included on Annex IV of Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (known as the Habitats Directive). As a result of the UK ratifying this directive, all British bats are protected under The Conservation of Habitats and Species Regulations 2010. Regulation 39 makes it an offence to:

- Deliberately capture or kill a bat [Regulation 39(1)(a)];
- Deliberately disturb a bat in such a way as to be likely to significantly affect i) the ability of any significant group of animals of that species to survive, breed or rear or nurture their young, OR ii) the local distribution of that species. [Regulation 39(1)(b)];
- Damage or destroy a breeding site or resting place of a bat [Regulation 39(1)(d)].

Under the law, a roost may be any structure or place used for resting, shelter or protection. This could be any structure, for example any building or mature tree. Bats use many roost sites and feeding areas throughout the year. These vary according to bat age, condition, gender and species, as well as season and weather. Since bats tend to re-use the same roosts for generations, the roost may be protected whether the bats are present or not.

Otters - legislation

Otter are a European protected species under **The Conservation of Habitats and Species Regulations 2010**

Regulation 39 (1) contains the following offences:

- (a) deliberately or recklessly to capture, injure or kill a wild animal of a European protected species;
- (b) deliberately or recklessly:
 - (i) to harass a wild animal or group of wild animals of a European protected species;
 - (ii) to disturb such a wild animal while it is occupying a structure or place which it uses for shelter or protection;
 - (iii) to disturb such an animal while it is rearing or otherwise caring for its young;
 - (iv) to obstruct access to a breeding site or resting place of such an animal, or otherwise to deny the animal use of the breeding site or resting place;
 - (v) to disturb such an animal in a manner that is, or in circumstances which are likely to significantly affect the local distribution or abundance of the species to which it belongs ;or
 - (vi) to disturb such an animal in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- (c) deliberately or recklessly to take or destroy the eggs of such an animal ;or
- (d) to damage or destroy a breeding site or resting place of such an animal

Importantly the regulations previously provided a defence for offences which were the incidental result of lawful operations (subject to certain conditions). This defence has now been removed.

There are provisions in the legislation to allow actions to take place under licence that would otherwise contravene the law. Licences may be given authorising activities involving European Protected Species which would otherwise be illegal under the Regulations. For a licence to be issued the following three tests must be satisfied:

That the development is 'in the interest of public health and safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

That there is 'no satisfactory alternative';

That the derogation (i.e. any permission/licence granted) is 'not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range'.

7.2 Existing Ecological Records (as at 29-04-14)

Mammals

Otter

Approx. 1.8km NW of site.

Joint Nature Conservation Committee	SJ388454	Site name unavailable	1991-07-20	EA
Joint Nature Conservation Committee	SJ388454	Site name unavailable	2002-07-17	JW

Common pipistrelle

Approx. 0.5 – 1.5km NW of site and in next km sq. west.

Natural Resources Wales	SJ3945	1993-07-01
Natural Resources Wales	SJ3945	1988-06-28
Natural Resources Wales	SJ3845	1989-07-08
Natural Resources Wales	SJ3845	1991-03-12
Natural Resources Wales	SJ3845	1985-08-20
Natural Resources Wales	SJ3845	1984-07-06
Natural Resources Wales	SJ3845	1993-06-07
Natural Resources Wales	SJ3845	1993-06-09

Daubenton's bat

Approx 1.8km NW at Bangor Bridge

The Bat Conservation Trust	SJ389451	Bangor Bridge	2011-08-15
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Amphibians

Great crested newt

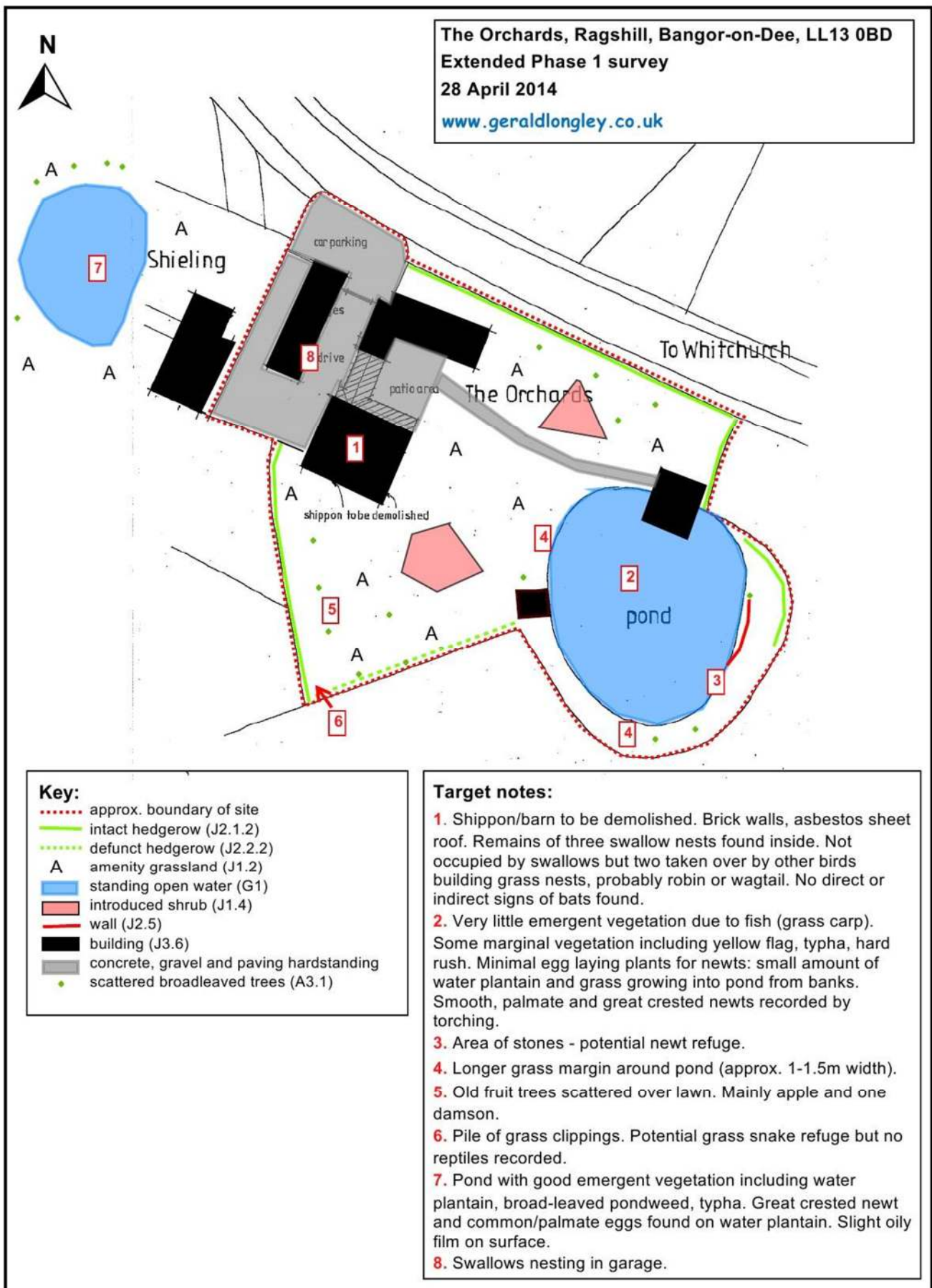
Approx 1.3km WNW of site

Cofnod (North Wales Environmental Information Service)	SJ391449	Bangor-on-Dee	2008-07-28	John Morgan
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Approx. 1.5km south (Cloy Farm)

Biological Records Centre	SJ400429	PENLEY	1987-01-01	1987-12-31	Mary Swan's amphibian records
Biological Records Centre	SJ400429	PENLEY	1987-01-01	1987-12-31	Mary Swan's amphibian records

7.3 Extended Phase 1 Survey



Plant species recorded

Scientific name	Common name
<i>Acer pseudoplatanus</i>	sycamore
<i>Agrostis stolonifera</i>	creeping bent
<i>Bellis perennis</i>	daisy
<i>Crateagus monogyna</i>	hawthorn
<i>Hedera helix</i>	ivy
<i>Iris pseudacorus</i>	yellow flag
<i>Juncus inflexus</i>	hard rush
<i>Lolium perenne</i>	perennial rye grass
<i>Lonicera periclymenum</i>	honeysuckle
<i>Malus domestica</i>	cultivated apple
<i>Nymphaea</i> sp.	ornamental water lily
<i>Prunus domestica</i>	wild plum
<i>Prunus</i> sp.	damson
<i>Sorbus aucuparia</i>	rowan
<i>Sparganium erectum</i>	branched burr reed
<i>Taraxacum officinale</i>	dandelion
<i>Typha latifolia</i>	bulrush (reedmace)

Plant species recorded in Shieling pond (not on site)

Scientific name	Common name
<i>Alisma plantago-aquatica</i>	water plantain
<i>Cardamine pratensis</i>	cuckoo flower
<i>Crassula helmsii</i>	Australian swamp stonecrop
<i>Lagarosiphon major</i>	curly waterweed
<i>Potamogeton natans</i>	broad-leaved pondweed
<i>Typha latifolia</i>	bulrush (reedmace)

Bird species recorded

Scientific name	Common name
<i>Carduelis carduelis</i>	goldfinch
<i>Hirundo rustica</i>	swallow
<i>Sylvia atricapilla</i>	black cap
<i>Sylvia curruca</i>	lesser whitethroat
<i>Turdus merula</i>	blackbird

Amphibian species recorded

Scientific name	Common name
<i>Bufo bufo</i>	common toad (tadpole and spawn)
<i>Triturus cristatus</i>	great crested newt
<i>Lissotriton helveticus</i>	palmate newt
<i>Lissotriton vulgaris</i>	smooth newt

7.4 Ecological principles to follow in this development

By adhering to the following principles, the disturbance, either short-term or long term to species should be significantly reduced. However, it is still possible that during works, protected or other, not protected but vulnerable, species could be encountered. A prepared plan of action in this situation should be followed and should include:

- Construction workers and staff should be aware of the potential for protected species and should be fully briefed about their legal responsibilities towards them and how to proceed if discovered, as below.
- In the event that protected species are encountered during the construction phase then a suitably qualified ecologist should be contacted and all work cease until an assessment has been made.
- Common reptiles/amphibians (e.g. common frogs, common toads, slow worm, grass snake), if discovered should be translocated to a close and safe area by an ecologist.
- If great crested newts are discovered then NRW/Natural England should be contacted or a suitably qualified ecologist for advice. Works should cease and an EPS licence may be required to allow work to continue.
- If common breeding birds are discovered during the works then a 25 metre stand-off/exclusion zone must be put in place (further for some species) until breeding has ended/birds fledged.
- All works to cut, prune or fell trees, hedges etc. and other vegetation should be carried out in the dormant season, October to February. If vegetation/tree work must be carried out in the bird breeding season, a comprehensive assessment of the area must be made by a suitably qualified ecologist immediately prior to the works, to ensure active nests are not present or disturbed.
- A post-construction ecological survey is recommended to assess any potential effects or issues the development has had or is having.

7.5 Great Crested Newt Reasonable Avoidance Measures (RAMS)

Gerald Longley Ecological Consultants
www.geraldlongley.co.uk

Great Crested Newt Method Statement

The Orchards, Ragshill, Bangor-on-Dee, LL13 0BD

Reasonable Avoidance Measures (RAMS) to protect great crested newt during construction works (5 pages)



1. Introduction

- a. There are two ponds within 100m of the proposed construction zone. One is approximately 25m from the construction zone in the garden of The Orchards and the other approximately 90m from the proposed construction zone on the far side of the neighbouring house (The Shieling). Both the Orchard and Shieling ponds were categorised as 'excellent' for great crested newts by the ARG Great Crested Newt Habitat Suitability Index. During site surveys on 28 April 2014 a great crested newt egg was found in the Shieling pond confirming it as a breeding pond. Two adult great crested newts were recorded by torching in the Orchard pond. Breeding was not confirmed in this pond.
- b. The proposed development will not result in destruction of or damage to either of the ponds nor the grassland immediately adjacent to them. The new building will be entirely within the footprint of the existing shippon and patio so no newt foraging habitat will be lost. All works will be on existing hard standing, there is no new septic tank and no trenching for power or water proposed. There is the potential for individual newts to be harmed or killed during construction if they cross the construction zone or find shelter in excavations, stored building materials or piles of rubble during the works.
- c. With this background, and following consultation with Natural Resources Wales and the Wrexham Council Ecology Team, it is considered that following the Reasonable Avoidance Measures in this working method will be appropriate and proportionate to protect individual great crested newts from harm during the proposed works. Details of works which will enhance the population of great crested newts in the locality are also given. Finally a timetable for these works, assigning who will carry them out, and how they will be monitored is included.
- d. A copy of this Method Statement will be circulated to the site owner/developer, the architect, site manager and other key site staff and other site operatives so that they are fully aware of the sensitivity of the works and of the possibility of encountering great crested newts. A copy will also be kept on site.

2. Background Legislation

All amphibian species are protected at some level under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and The Conservation of Habitats and Species Regulations (2010)).

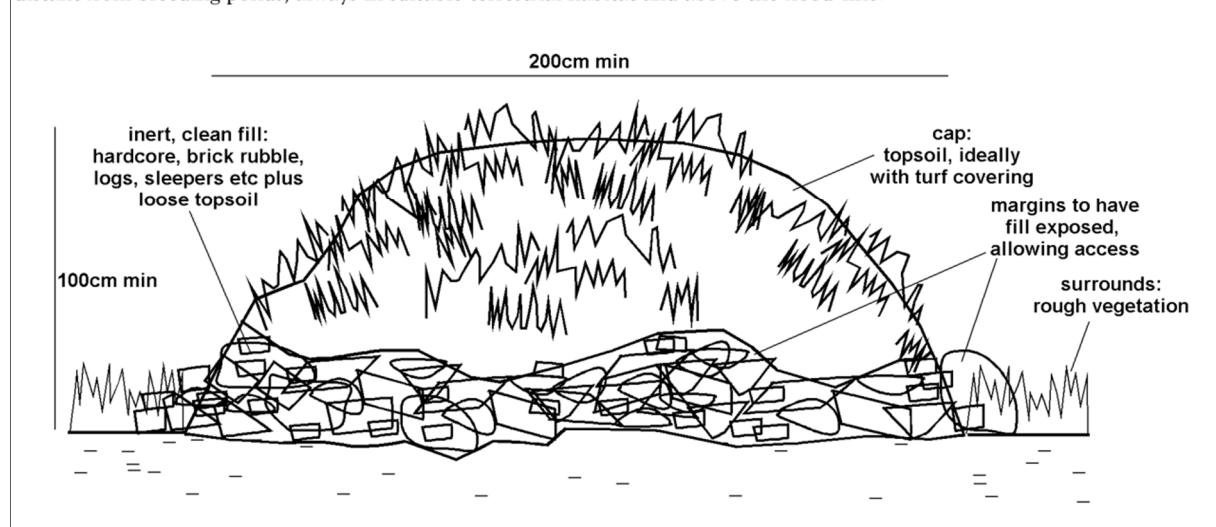
Some amphibians, including great crested newt, receive a higher level of protection as European Protected Species. It is an offence to capture, possess, disturb, kill, injure or trade in individual great crested newts. It is also an offence to damage or destroy the places they use for breeding or resting.

3. Methodology

- a. Prior to construction, the mown grass area of the garden, which is between the pond and the footprint of the proposed development, shall continue to be mown on the current regime to keep it short. Short grass is less attractive to amphibians so this will reduce the chance of newts being in this area when development begins.
- b. Demolition and construction works will be timed to take place **outside** the bird nesting season (March - September inclusive).
- c. Prior to construction and ideally during the newt breeding season (Feb – June), a newt hibernaculum will be constructed on the opposite side of the pond from the construction zone and a buffer zone of vegetation around it allowed to grow long. This will make this side of the pond more attractive to newts and encourage them to move away from the construction zone. A suggested hibernaculum design from the Great Crested Newt Mitigation Guidelines is in figure 1. A hand search of the ground on which the hibernaculum is to be constructed will be carried out by the ecologist immediately prior to it being built to ensure no newts will be injured during the construction.

Figure 1: Newt hibernaculum design

This design mimics artificial and natural conditions in which great crested newts have frequently been found over-wintering. Dimensions should not be below 2m length x 1m width x 1m height. The illustrated design would be suitable for locating on an impermeable substrate. On free-draining substrates, the design is largely similar but the bulk of the fill is sited in an excavated depression in the ground. Hibernacula should ideally be positioned across a site, both close to and distant from breeding ponds, always in suitable terrestrial habitat and above the flood-line.



- d. Prior to any construction works of any sort, the construction, storage of materials and siting of cabins etc. area will be defined as a single area on site and entirely fenced with a Heras fence. It is hereafter referred to as the “construction zone”. The fence will be

approximately 5 – 10m from the edge of the shippin that is to be demolished. The actual siting of the line of the fence on site will be supervised by the ecologist to take account of trees etc on site. The main contractor will immediately erect 4 site signs on the fence placed around it, facing outwards, saying: **“Any works in or around this site of any sort out to the edge of The Orchards grounds are banned, including placing cabins, digging, trenching, storage of materials or any other works until the required prior ecology works have been confirmed as complete. A new site sign will be erected when they are complete.”** The signs will be signed by the client and the main contractor with a contact telephone number.

- e. Following the above the garden area inside the fenced construction zone will then be sprayed with Glyphosate (Roundup) by a suitably licensed operator to kill all vegetation in the fenced construction site. This will reduce the chance of newts being in this area when development works begin. This should be repeated until the development works start, **and** through the life of the development works, (spraying all soil areas) in the construction zone until all site works are complete, at suitable intervals to aim to keep it completely free of any vegetation. This is to discourage newts from foraging on to and hibernating on/in the site.
- f. Immediately prior to any construction works, a hand search of the construction zone will be carried out by the ecologist. Any natural or artificial refuges found, such as logs, stones, rocks etc., will be lifted and checked for sheltering animals before being removed from the area. Any amphibians found, including newts, will be moved by the site ecologist out of the construction zone to adjacent suitable habitat.
- g. The client will then be informed in writing by the site ecologist that the site is clear for the start of site development works.
- h. The main contractor will remove the site notices erected previously and will erect 4 site signs on the fence placed around it, facing outwards, saying: **“This site has great crested newt foraging and hibernating near and around it. No works of any sort including: trenching, storage of materials, dumping, digging etc. are to take place out of this fenced construction zone.”** The signs will be signed by the client and the main contractor with a contact telephone number.
- i. The ecologist will return to site to supervise the demolition of the lower 1m of the walls of the shippin. Prior to their demolition, a hand search of the walls will be carried out by the ecologist. Any amphibians found, including newts, will be moved by the site ecologist out of the construction zone to adjacent suitable habitat. This is to avoid injury to any newts that may be using cracks or crevices in the old walls as refuges.
- j. In the unlikely event that large numbers of amphibians are encountered at any stage of the prior ecology or development works then an alternative strategy will be discussed and agreed with Natural Resources Wales and the Council's ecology team. They will be kept informed of the works while they are being carried out, and a brief summary report will be issued when the works are complete.
- k. The following additional controls will be implemented during the works:
 - Cover any open footings/trenches/pits which cannot be filled in within the day's work, with plywood sheets/boards overnight to prevent animals falling into them.
 - Store building materials, block/bricks etc. above ground on pallets.
 - Put all building and all other waste into skips immediately with no temporary storage on the ground.
 - No night time working. All site working is to take place in daylight hours.

4. Timetable of works

Timetable of Works Great Crested Newt Method Statement The Orchards, Ragshill, Bangor-on-Dee, LL13 0BD Demolition of shippon and construction of extension to existing house May 2014			
Project No.	Work/Project	Timing of works	Who to carry out
01	Provide copies of this Method Statement and a great crested newt factsheet to workers/contractors	Before any work starts	Ecologist
02	Keep grass area of garden between pond and construction zone mown short (as during survey)	Before and during development works.	Owners
03	Site for hibernaculum east of Orchard pond to be determined on site by ecologist. Spray with roundup, leave vegetation to dieback. Search area first for newts. Any newts found will be relocated to the sides of the pond. If over ten great crested newts are found consideration will be given on whether to contact Natural Resources Wales for their further advice. Then build hibernaculum pile as per GCN Mitigation Guidelines (figure 1) with surrounding vegetation left to grow uncut.	Summer/early autumn before 01 Oct & development starts.	Search for newts by licensed ecologist. Owners, contractors
04	Erect site fencing and signs. Spray vegetation within fence with roundup. Repeat until development work starts and during development to keep ground free of vegetation.	Summer/early autumn before 01 Oct & development starts.	Contractors
05	Hand search of construction zone and removal of any natural or artificial refuges. Any newts found will be re-located to the sides of the pond. If over ten great crested newts are found consideration will be given on whether to contact Natural Resources Wales for their further advice.	Immediately prior to development starting.	Licensed ecologist
06	Site confirmed clear for start of development works.	After hand search of construction zone.	Ecologist
07	All building materials will be stored within the fenced construction zone. They will be stored on pallets and in skips to avoid harm to newts. All waste will be put into skips immediately with no temporary storage on the ground. When materials are moved a search will be made for newts prior to moving them. All work will take place during daylight hours. No night time	Throughout the development	Owners, contractors

	working.		
08	Hand search and supervision of demolition of lower 1m of walls of shippon. . Any newts found will be re-located to the sides of the pond. If over ten great crested newts are found consideration will be given on whether to contact Natural Resources Wales for their further advice.	When top part of building has been demolished and removed.	Licensed ecologist.
09	Search footings, pits and holes on the building site each morning to check if newts are trapped. A suitably qualified ecologist is to be called to move any trapped newts to the side of the pond. If over ten great crested newts are found consideration will be given on whether to contact Natural Resources Wales for their further advice.	Throughout the development	Owners, contractors. Licensed Ecologist if newts found.

8.0 SITE PICTURES







