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**S G ESTATES**

**PROPOSED DEVELOPMENT AT BRYN – Y- GROES, GRESFORD, WREXHAM**

**GREAT CRESTED NEWT CONSERVATION STRATEGY**

**MARCH 2015**

*your earth our world*



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**GREAT CRESTED NEWT CONSERVATION STRATEGY**

**MARCH 2015**

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## **CONTENTS**

|   |                                                        |    |
|---|--------------------------------------------------------|----|
| 1 | Introduction .....                                     | 1  |
| 2 | Site Context.....                                      | 2  |
| 3 | Legislation .....                                      | 4  |
| 4 | Baseline Conditions.....                               | 9  |
| 5 | Great crested newt Conservation Strategy .....         | 18 |
| 6 | Works timeframe .....                                  | 25 |
| 7 | Long Term surveillance, management and monitoring..... | 27 |
| 8 | Conclusion.....                                        | 29 |

## **ANNEXES**

Annex 1 – Preliminary Ecological Appraisal Update

Annex 2 – Ecological compliance audit

## **DRAWINGS**

PL1F – Planning Layout

Figure 1 – Location Plan

Figure 2 – Receptor Creation Measures

Figure 14 – Mitigation Works Area.

## 1 INTRODUCTION

### 1.1 Terms of Reference

1.1.1 Wardell Armstrong (WA) was commissioned by S G Estates in March 2015 to prepare a conservation strategy for great crested newts associated with a proposed development at Bryn-y-Groes, Gresford, Wrexham, hereafter referred to as the 'proposed site'. This report will be used to support the planning application for the proposed development on site.

1.1.2 This report should be read in conjunction with the Ecological survey reports produced by Young Associates (2005) and EVR (2012) (**Annex 1**). Such reports detail previous survey effort undertaken in order to identify the presence /potential absence of great crested newts and determine the population status.

1.1.3 In order to support the planning application for the proposed development, this report presents a great crested newt Conservation Strategy which must be followed in relation to:

- The Wildlife and Countryside Act 1981 (as amended) Schedule 5, under which all bat species are listed,
- The Conservation of Habitats and Species (Amendment) Regulations 2012
- Section 41 of the Natural Environment and Rural Communities Act 2006.
- Planning Policy Wales (2014). Chapter 5: Conserving and Improving Natural Heritage and the Coast, and
- Technical Advice Note 5 (2009): Nature Conservation and Planning.

## 2 SITE CONTEXT

2.1.1 The site is approximately 2.812ha in size and is located at national grid ref SJ347542, on the south side of Gresford near Wrexham. It is comprised of Bryn-y-Groes Hall and associated grounds which have remained unmanaged for a number of years. Habitats recorded comprise a mixture of planted and mature broadleaved and coniferous trees, tall ruderal herbaceous growth and poor semi-improved grassland. Land directly to the north of the site is occupied by existing housing development. The B5445 is directly adjacent the northwest side of the site beyond which is a school. Old Wrexham road runs along the eastern boundary of the site beyond which lies agricultural land and a caravan park. Land to the south west is dominated by agricultural land used primarily for arable crops.

### 2.2 Details of Development Proposals

2.2.1 Development of the site is to be divided into 2 phases (as can be seen on Drawing PL1F – Planning layout), these are described below:

#### Phase 1 (2014)

2.2.2 This phase of the development is to involve the construction of the first section of the site access road leading from Chester Road (B5445) into the site. In addition 28 houses will be constructed and associated infrastructure installed. A pumping station will also be constructed adjacent the southern boundary during this phase of the development.

#### 2015 update

2.2.3 No housing has been constructed within the Phase 1 area, however the western most area of this phase (incorporating the footprint of properties 1-14 and 45-54 and associated access road) was cleared during 2014. The remaining access road and pumping station previously associated with this phase are to be cleared of vegetation and constructed during the summer period of 2015.

#### Phase 2 (2015 - 2018)

2.2.4 Phase 2 of the development will involve the construction of a further 30 houses (plots 15 – 44) and associated, public open space and infrastructure (including an extension to the main access road through the site).

2.2.5 This report relates to the precautionary working methods to be implemented to undertake vegetation clearance and construction works associated with the pumping

station and main access road within Phase 1 of the development. All other works within the site will be subject to a European Protected Species Licence.

### 3 LEGISLATION

#### 3.1 Great crested newt

3.1.1 Great crested newts are a European Protected Species and afforded full protection through inclusion of Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species (Amendment) Regulations 2012.

3.1.2 In addition to the above great crested newts are included within the Natural Environment and Rural Communities (NERC) Act 2006 in respect of Section 42 (Wales). Species included in this list are considered by the Secretary of State to be “of principal importance for the purpose of conserving biodiversity”. Great crested newts are listed as a priority species on the UK Biodiversity Action Plan (BAP).

3.1.3 **Table 1** outlines legislation within the EU Habitats Directive transposed into UK legislation through the Conservation of Habitats and Species 2012 (as amended) with regards to maintaining the favourable conservation status of great crested newts.

**TABLE 1: EC HABITATS AND SPECIES DIRECTIVE**

| Article      | Habitats Directive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The Conservation of Habitats and Species Regulations 2012 (as amended)                                                                                                                                                                                                     |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Article 1(i) | <p>Favourable conservation status is defined in Article 1 (i) the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2;</p> <p>The conservation status will be taken as ‘favourable’ when:</p> <ul style="list-style-type: none"> <li>— population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and</li> <li>— the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and</li> </ul> | <p>Part 1 – Interpretation</p> <p>In these Regulation –</p> <p>“conservation status” and “favourable conservation status” have the meanings given by paragraphs (e) (in relation to habitats) and (i) (in relation to species) of Article 1 of the Habitats Directive.</p> |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                            |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | <p>— there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis</p> <p>EC Guidance,<sup>1</sup> together with caselaw<sup>2</sup>, confirms that FCS is considered at various tiers eg Site/Population ((or colony), county, Country Member State. Note that tiers are not hieratical</p> <p>1 Section III.2.3A, EC (2007) Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. (2012)Anon. (2007)</p> <p>2 Legal precedent of the application of the “FCS test” at site/colony level was established as a material component of the Hafod Quarry Land Tribunal 2011 (Mersey Waste Holdings Limited v Wrexham County Borough Council) and the subsequent Court of Appeal decision (2012)</p> |                                                                                                                                                                                                                                                                                                                                                                                            |
| 2:2 | <p>The aim of the Habitats Directive is to maintain or restore at favourable conservation status European habitats and species.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>Part 2 - Section 11: Designation of Special Areas of Conservation.</p> <p>(2) The appropriate authority must establish priorities for the designation of sites in the light of—</p> <p>(a) the importance of the sites for the maintenance or restoration at a favourable conservation status of—</p> <p>(i) a natural habitat type specified in Annex I to the Habitats Directive.</p> |
| 10  | <p>Planned provision and management of stepping stone and linear habitats</p> <p>Article 10</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>See Regulation 39 of the Habitats Directive</p> <p>The site will function both stepping stones and corridors for European species, especially for bats</p>                                                                                                                                                                                                                              |

<sup>1</sup> Section III.2.3A, EC (2007) Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. (2012) Anon. (2007)

<sup>2</sup> Legal precedent of the application of the “FCS test” at site/colony level was established as a material component of the Hafod Quarry Land Tribunal 2011 (Mersey Waste Holdings Limited v Wrexham County Borough Council) and the subsequent Court of Appeal decision (2012)

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                           |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Member States shall endeavour, where they consider it necessary, in their land-use planning and development policies and, in particular, to encourage the management of features of the landscape which are of major importance for wild fauna and flora.</p> <p>Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species.</p>                                        | <p>Dedication of component nature features (including bat mitigation roosts, foraging areas and commuting routes) to be secured and managed in the long-term, (paid for by an index-linked ground rent service charge in perpetuity).</p> |
| 12 | <p>Protection of European species</p> <p>Protection of species</p> <p>Article 12</p> <p>1. Member States shall take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV (a) in their natural range, prohibiting:</p> <p>(a) all forms of deliberate capture or killing of specimens of these species in the wild;</p> <p>(b) deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation and migration;</p> <p>(c) deliberate destruction or taking of eggs from the wild;</p> <p>(d) destruction of breeding sites or resting places.</p> | <p>Regulation 41</p>                                                                                                                                                                                                                      |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15 | <p>Surveillance and prevention of incidental capture/killing of European species Article 15</p> <p>In respect of the capture or killing of species of wild fauna listed in Annex V (a) and in cases where, in accordance with Article 16, derogations are applied to the taking, capture or killing of species listed in Annex IV (a), Member States shall prohibit the use of all indiscriminate means capable of causing local disappearance of, or serious disturbance to, populations of such species, and in particular:</p> <p>(a) use of the means of capture and killing listed in Annex VI (a);</p> <p>(b) any form of capture and killing from the modes of transport referred to in Annex VI (b).</p>                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 16 | <p>Article 16 (1)</p> <p>Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):</p> <p>(a) in the interest of protecting wild fauna and flora and conserving natural habitats;</p> <p>(b) to prevent serious damage, in particular to crops, livestock, forests, fisheries and water and other types of property;</p> <p>(c) in the interests of public health and public 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;</p> | <p>The proposal is not considered to be to detrimental to the maintenance of the favourable conservation status of each of the populations (colonies) of bat provided components that include</p> <ul style="list-style-type: none"> <li>(i) Continued provision of features that function as bat roosts, either within buildings and/or trees</li> <li>(ii) Bat friendly building design;</li> <li>(iii) 'Bat friendly' planting schemes;</li> <li>(iv) Bat friendly external lighting (and include consideration of internal light spillage)</li> <li>(v) Targeted long term provision and management of green infrastructure, landscaping etc</li> <li>(vi) Long term surveillance to evidence maintenance or restoration</li> </ul> |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | <p>(d) for the purpose of research and education, of repopulating and re-introducing these species and for the breeding operations necessary for these purposes, including the artificial propagation of plants;</p> <p>(e) to allow, under strictly supervised conditions, on a selective basis and to a limited extent, the taking or keeping of certain specimens of the species listed in Annex IV in limited numbers specified by the competent national authorities.</p> |  |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

## 4 BASELINE CONDITIONS

### 4.1 Habitats

- 4.1.1 All natural habitats within the site are described in **Table 2**, together with an indication of their BAP status, according to the definitions given in *UK BAP Priority Habitat Descriptions* (Anon 2008 updated 2010) and within the LBAP for Denbighshire.
- 4.1.2 **Table 2** also provides an evaluation of the habitats within the site and the potential of these to cause constraints to the proposed development are indicated in bold text. Habitats on site were unchanged to those identified within the 2005 survey.

**TABLE 2: HABITAT DESCRIPTION AND EVALUATION**

| Phase 1 Habitats                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UK BAP | LBAP | Potential Constraint?                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bare earth</b><br>A section of the site (within phase 1 area) was cleared in 2014 in preparation for development. Wardell Armstrong ecologists were not involved in any works associated with vegetation clearance in this area.                                                                                                                                                                                                                                                                                                                                        | x      | x    | No – No vegetation was recorded in this area and topsoil has been removed in prep for development.                                                                                                                                                                                                                                                                                    |
| <b>Tall ruderal</b><br>Tall ruderal vegetation was recorded beneath the hedgerows in the site, around the farm buildings and along field and site margins. Species present included bramble <i>Rubus fruticosus</i> , common nettle, hogweed <i>Heracleum sphondylium</i> , broad-leaved dock <i>Rumex obtusifolius</i> , creeping buttercup, creeping thistle, red campion <i>Silene dioica</i> and willowherb species <i>Epilobium sp.</i>                                                                                                                               | x      | x    | No – The species present are common. Works within this habitat can be undertaken without the risk of significantly affecting the conservation status of this habitat type.                                                                                                                                                                                                            |
| <b>Hedgerows – Species-poor intact hedgerows and hedgerows and trees</b><br>Hedgerows bordering the southern boundary of the site were species-poor, intact and well maintained. Dominant species included hawthorn <i>Crataegus monogyna</i> and blackthorn <i>Prunus spinosa</i> . Other species present included ivy <i>Helix Hedera</i> , dog-rose <i>Rosa canina</i> , ash <i>Fraxinus excelsior</i> and holly <i>Ilex sp.</i> Ground flora included common sorrel <i>Rumex acetosa</i> , bramble, common nettle, foxglove <i>Digitalis purpurea</i> and Cock's-foot. | ✓      | ✓    | <b>Yes - Hedgerows are potentially important and therefore protected under the Hedgerow Regulations (DOTE, 1997). In addition, hedgerows are a UK BAP and LBAP habitat supporting a diverse range of species and should not be adversely impacted upon. The hedgerows provide important wildlife corridors through the site and provide suitable refuges for a number of species.</b> |
| <b>Scattered broad-leaved trees</b><br>Scattered broad-leaved trees were located predominantly around the farm buildings. Species comprised mainly of mature ash as well as occasional beech <i>Fagus sylvatica</i> and willow species. An arboriculture survey was undertaken in 2014 for all trees on site. A number of the trees                                                                                                                                                                                                                                        | x      | x    | <b>Yes - Semi-mature trees within the site have the potential to support bat species and nesting birds.</b>                                                                                                                                                                                                                                                                           |

| Phase 1 Habitats                                                                                                                                                                                                                                                                                                                              | UK BAP | LBAP | Potential Constraint?                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| showed bat roost potential following a tree scoping survey in 2013 (Table 4.6. Appendix 2, PEA update report (Annex 1)).                                                                                                                                                                                                                      |        |      |                                                                                                                                                                        |
| <b>Dense and scattered scrub</b><br><br>Dense patches of scrub were recorded within the site and adjacent to the north and eastern boundary. Scattered scrub was present adjacent to field boundaries. Species present included bramble, gorse, hawthorn, blackthorn, common nettle, dog rose, common hogweed, red campion and spear thistle. | X      | X    | No – Species present are common. Works within this habitat can be undertaken without the risk of significantly affecting the conservation status of this habitat type. |
| <b>Buildings (B1)</b><br>Bryn-Y-Groes Hall is present on site. This derelict building has been assessed for its potential to support protected species within 'Ecological Management Plan for Protected Species (Bats and Badgers)' (2015)                                                                                                    | X      | X    | See 'Ecological Management Plan for Protected Species (Bats and Badgers)' (2015) or <b>breeding habitat for bats and birds.</b>                                        |

## 4.2 Great crested newts

- 4.2.1 Ecological studies for this site were undertaken in 2005 and 2012, these reports are provided in annex 1 and summarised below.
- 4.2.2 Previous surveys undertaken by YA Environmental Consultants Ecology in 2005 recorded that the pond on site remained dry for the vast percent of the year and by April still held very little water. It showed very little potential to act as a breeding pond for great crested newts however, the surrounding terrestrial area did show potential for foraging and sheltering.
- 4.2.3 Ponds five of the six waterbodies within 500m of the site were surveyed for great crested newts of which two were confirmed as breeding ponds. Other notable species recorded during the surveys were smooth newts although no palmate newts were recorded. The surveys were undertaken between mid-April and June 2005 during suitable weather conditions. A maximum of two great crested newts were recorded on any one night in Pond 1 and only ever one singular great crested newt in Pond 2. Pond 1 recorded eggs present and both male and females recorded in Pond 2. This small population was recorded off site but within 500metres of the site with the closest possible breeding pond situated 130m south of the application site. This concluding that newts may be present within the site during the terrestrial phase of their lifecycle. YA Environmental Consultants therefore concluded that great crested newts may be disturbed by the development and consultation with CCW (now NRW) suggested that a NRW licence will be required.
- 4.2.4 A more recent survey undertaken in March 2012 by EVR ecology concluded that the ponds located on site (Pond4 and Pond5) were in a poor condition and would not support breeding populations of great crested newts due to the dry nature of the waterbody. EVR ecology confirmed that the two ponds located on site were dry in 2012 and confirmed the surveys undertaken by YA Environmental Consultants Ecology in 2005. The survey results obtained by EVR Ecology concluded that great crested newts will not be breeding on site however, areas may still be used for refuge, commuting and foraging. Connectivity is restricted to the eastern hedge but the field is regularly ploughed and is unlikely to be used as a connective route.

- 4.2.5 EVR Ecology conclude that due to the nature of the site any great crested newt will be difficult to locate as the area has ample refuges and foraging areas, therefore a licence will be required as it was deemed impractical to clear the area using hand clearance under reasonable avoidance measures (RAMs) alone.
- 4.2.6 EVR Ecology's assessment concluded that there was no material changes to the ponds, landscape and site habitat and therefore unlikely to be any variation from the 2005 assessment undertaken by YA Environmental Consultants. There was no requirement for further surveys and the licensing will be based on 2005 data.

#### **2015 Great crested newt assessment**

- 4.2.7 It is best practice to update survey data to assess the local conservation status of great crested newts when previous data is either lacking or considered out of date (i.e. data is over two years old). However, there has been no significant change in the management of ponds or surrounding terrestrial habitat (including the site) surveyed in 2005 which would have either an adverse or beneficial effect upon the conservation status of the local population of great crested newts. It is therefore determined highly unlikely that the local population status of great crested newt would have altered since the detailed surveys were completed. Discussions were held with Matthew Ellis (NRW) in 2014 and 2015 who confirmed that the above approach was acceptable and that existing information is sufficient to inform this conservation strategy document and European Protected Species Licence application once planning permission has been granted.

## Current and Favourable Conservation Status

4.2.8 **Tables 3** provide details of the current and favourable conservation status for great crested newts in accordance with historic survey data.

**TABLE 3: GREAT CRESTED NEWT - CURRENT AND FAVOURABLE CONSERVATION STATUS.**

| Level                      | Current Conservation Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Favourable Conservation Status                                                                                                                     |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Site                       | No suitable breeding habitat was recorded on site although suitable resting, commuting and foraging habitat was recorded during the detailed surveys undertaken in 2005. This has not changed in 2015.                                                                                                                                                                                                                                                                                                                                                                   | <b>Targets:</b> Maintain and enhance local population status of great crested newt in the local area.                                              |
| Environs                   | Detailed surveys undertaken in 2005 indicate that a small population of great crested newts was recorded within ponds located within 500m of the site boundary (Young Associates 2005 & EVR Ecology 2013). The ponds have not been subject to any significant change in management over the 10 year period since the original survey was carried out. It is therefore considered reasonable to assume that the population status of great crested newts in the local area has not altered and remains small. This approach has been agreed with Natural Resources Wales. | <b>Targets:</b> Maintain and enhance local population status of great crested newt within the local area.                                          |
| County: Denbighshire       | Not known. Probably stable – No data provided within Biodiversity Action Reporting System (BARS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Not known. Local Population Target (LPT) not defined. No report information presented within (BARS)                                                |
| Country (North Wales)      | Not known. Probably stable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Not known.                                                                                                                                         |
| European Member State (UK) | There are an estimated 75,000 populations in the UK This estimate is based on pond numbers potentially suitable for the species as there has been no truly comprehensive survey of great crested newts in the UK.                                                                                                                                                                                                                                                                                                                                                        | <b>Unfavourable – Inadequate (JNCC 2006)</b><br>Current population is below favourable reference population of 1000,000, but not by more than 25%. |

## Summary of Impacts on great crested newts

4.2.9 **Table 4** provides an assessment of the favourable conservation status of great crested newts within the site.

4.2.10 The favourable conservation status of great crested newts within the site and immediate environs will be maintained.

**TABLE 4: SITE BASED FAVOURABLE CONSERVATION STATUS ASSESSMENT**

|                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. Is it predicted that the proposal will result in the loss, damage or deterioration to breeding sites or resting places?</p> <p>(i) During construction</p> <p>(ii) During Operational Phases (if applicable)</p> <p>(iii) Post construction or operation</p> | <p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Not applicable</p> <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> |
| <p>2. Is it predicted that there will be changes to foraging area or access to foraging area?</p> <p>(iv) During construction</p> <p>(v) During Operational Phases (if applicable)</p> <p>(vi) Post construction or operation</p>                                  | <p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> |
| <p>3. Is it predicted that there will be changes to range:</p> <p>(vii) During construction</p> <p>(viii) During Operational Phases (if applicable)</p> <p>(ix) Post construction or operation</p>                                                                 | <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> |
| <p>4. Is it predicted that there will be adverse changes to connectivity:</p> <p>(i) During construction</p> <p>(ii) During Operational Phases (if applicable)</p> <p>(iii) Post construction or operation</p>                                                     | <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> |
| <p>5. Is it predicted that there will be changes to population size, including deterioration:</p> <p>(i) During construction</p> <p>(ii) During Operational Phases (if applicable)</p> <p>(iii) Post construction or operation</p>                                 | <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> |
| <p>6. Have long term prospects been effectively considered?</p>                                                                                                                                                                                                    | <p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Not applicable</p>                                                                                                                                                                                                                                                   |

|                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                    | <p>State why?</p> <p>Future management and monitoring of the site is discussed below.</p>                                                                                                                                                                                                                                                                                  |
| <p>7. Have deliberate or incidental capture/injury or killing and issues relating to disturbance been effectively considered?</p> <p>(i) During construction</p> <p>(ii) During Operational Phases (if applicable)</p> <p>(iii) Post construction or operation</p> | <p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> <p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Not applicable</p> |
| <p>8. If applicable, are compensatory proposals consistent with local or regional spatial FCS strategies?</p>                                                                                                                                                      | <p><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Not currently available</p>                                                                                                                                                                                                                                          |

4.2.11 The following sections provide a summary of impacts considered likely as a result of the proposed development. These impacts will be discussed in detail within the EPSL application.

### Pre- and mid-development impacts:

4.2.12 Pre-construction site clearance works would result in the permanent loss of terrestrial habitat likely to be used by great crested newts for foraging, refuge and hibernation. This is due to the fact that housing development, associated infrastructure and garden landscaping will not form viable terrestrial habitat for great crested newts. The permanent destruction of the intermediate habitat (50-250m from known breeding pond) is assessed as a moderate negative impact. The permanent destruction of distant 250-500m from known breeding pond habitat is assessed as a minor negative impact.

### Long-term impacts:

4.2.13 The proposed development will result in the permanent loss of suitable terrestrial habitat as described above. In addition, the road network within the proposed development has the potential to result in increased risk killing or injury of great crested newts that enter the site via road traffic incident. In addition road drainage systems have the potential to adversely effect the conservation status of the local great crested newt population if inappropriate drainage schemes are incorporated in the drainage design which may result in the accidental capture and killing of

individual adult great crested newts. It is considered that such an effect will have a major negative effect upon the local great crested newt population.

- 4.2.14 The overall impacts of the proposed development are considered likely to have a major negative effect on the conservation status of the local population of great crested newts when considered in the absence of mitigation.

## **5 GREAT CRESTED NEWT CONSERVATION STRATEGY**

### **5.1 Land Ownership**

- 5.1.1 SG Estates own the proposed development site and receptor site and are committed to the provision of funds to ensure the receptor site is managed appropriately to support the local great crested newt population. Based on the above, it is not considered that engagement with third party landowners or organisations is required in order to implement the following strategy/methodology.

### **5.2 Ecological Clerk of Works**

- 5.2.1 Where necessary, relevant and appropriate an ecologist will be available on site to undertake the role of ecological clerk of works (EcOW). This role will involve supervision of contractors and site works to ensure all work is undertaken in line with the requirements of habitat/species specific mitigation.
- 5.2.2 The EcOW will be responsible for ensuring the following works proposed within this conservation strategy and subsequent EPSL application are adhered to and recorded appropriately. This will be achieved through the implementation of an Ecological Compliance Audit (Annexe 2).

### **5.3 Seasonal Ecological Constraints**

- 5.3.1 The specific mitigation strategy developed for great crested newts have been influenced by seasonal constraints associated with other protected species present within the proposed development.
- 5.3.2 The proposed development also provides suitable breeding habitat for birds in the locality. The breeding bird season is taken to fall between March and September inclusive but is subject to seasonal and geographical variations. During the breeding bird season, all birds are protected whilst nesting.
- 5.3.3 If vegetation clearance/building demolition is scheduled to take place during the bird breeding season a nesting bird check should be carried out prior to any works being undertaken. A maximum of 24 hours prior to the commencement of works would be required in order to minimise opportunities for nest building between the survey and the start of works. Any nest in use or being built during this survey would need to be left until the young have fledged.

5.3.4 Outside the breeding bird season (October – February) scrub and tree clearance can be undertaken providing ecological constraints associated with great crested newts are taken into consideration.

5.3.5 **Table 5** below summarises seasonal constraints for great crested newt and nesting birds.

**TABLE 5: SEASONAL CONSTRAINTS FOR GREAT CRESTED NEWTS.**

| Activity                                 | Constraint                    | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec |
|------------------------------------------|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|
| Vegetation Clearance/building demolition | Great crested newt EcOW works |     |     |     |     |     |     |     |     |      |     |     |     |
|                                          | Great crested newt EPSL works |     |     |     |     |     |     |     |     |      |     |     |     |
|                                          | Nesting birds                 |     |     |     |     |     |     |     |     |      |     |     |     |

Red is the closed season period. Green is the period when works can be undertaken subject to the methodology detailed in this method statement for each species. Amber indicates suboptimal timeframe but works may be carried out subject to agreement with statutory and non-statutory consultees and is subject to the results of detailed survey.

## 5.4 Toolbox Talk

5.4.1 A toolbox talk will be given by the onsite ecologist to all site workers prior to any works commencing. The purpose of the toolbox talk will be to inform the contractors of best practice ecological working procedures on site for great crested newts and breeding birds. At this time the Great Crested Newt Conservation Strategy will be issued and read and signed by all contractors involved in the proposed development works so that there is no doubt in respect of the habitats and protected species present and the legal protection afforded to them.

## 5.5 Great crested newt Method Statement

### Objectives for Conservation

5.5.1 The objectives for the great crested newt conservation strategy are to maintain and enhance the favourable conservation status of great crested newts in the local area.

### Phase 1 - Great crested newt Precautionary Working Method Statement

- 5.5.2 A Precautionary Working Method Statement relating to minor works associated with Phase 1 of the proposed development (construction of a section of road and pumping station within poor quality terrestrial habitat) was prepared in 2014. This document was amended in 2015 and is presented within annexe 2.

### Phase 2 - Capture and exclusion of great crested newts

- 5.5.3 Phase 2 of the proposed development will involve the loss and disturbance of good quality terrestrial habitat. It has therefore been determined that this phase of the development is subject to European Protected Species Licence (EPSL). A detailed EPSL application package will be submitted to Natural Resources Wales upon receipt of full planning permission for the proposed development. The below capture and exclusion measures have been designed in accordance with the great crested newt mitigation guidelines to inform this conservation strategy but will also be incorporated into the detailed EPSL application package.

#### ***Fence Design***

- 5.5.4 Temporary Amphibian Fencing (TAF) based on the recommended design within the 'Great Crested Newt Mitigation Guidelines' (2001) and will be composed of a durable material capable of withstanding disturbance by the public and vandalism while ensuring great crested newts are effectively excluded from the works area by adhering to Natural England specifications. Fencing installed in this manner is considered sufficient to prevent great crested newt access (from outside the works area) to habitats scheduled to be lost or disturbed as a result of construction works associated with the proposed development.

#### ***Trap Design***

- 5.5.5 Pitfall traps will be set at approximately 10m intervals along the inside of the TAF fence line, to achieve a minimum trap density of approximately 50 traps/ha, which is required for a small size population. Plastic pitfall traps, approximately 30cm depth, will be installed flush with the fence line with the top just below ground level. Such traps will be furnished with a mammal ladder (a twig less than 1cm diameter to allow any mammals which fall into the trap to escape); some moist vegetation to provide shelter; and a float in case of flooding. The traps will also have a lid to enable

them to be closed during the daytime or during periods of unsuitable weather, if required.

#### ***Fence and Trap Installation***

- 5.5.6 The TAF and pitfall traps will be installed by a contractor experienced in amphibian exclusion techniques. They will also be installed under ecological watching brief to ensure no harm to any great crested newt during the installation process. Installation of the fence will only take place if the weather is suitable for great crested newts to be active, e.g. with a minimum night time temperature of 5°C. The fence will be installed into the ground using either hand tools or a three tonne tracked excavator fitted with a narrow bucket, to ensure minimal ground disturbance and vegetation removal.

#### ***GCN Exclusion***

- 5.5.7 Once the fencing and pitfall traps are in place, trapping will be carried out for a minimum of 30 consecutive nights (as required for a small size population) between April to October and will continue until at least five clear nights with no great crested newt captures has been achieved at the end of the period. A suitable trapping night is considered to be a night with a minimum overnight temperature of 5°C and recent rain. The traps will be checked early every morning by a licensed ecologist or their accredited agent and any great crested newt, or other amphibians/fauna, will be immediately released into suitable cover within the receptor site. A record will be kept of all animals found within the traps. Once traps have been emptied of any animals, if required, additional moist vegetation will be added to ensure sufficient cover and the mammal ladder will be replaced if necessary. If weather conditions become unsuitable for trapping, all traps will be provided with lids so that they can be securely closed until such time as trapping can recommence.
- 5.5.8 Once the trapping period is completed, the pitfall traps will be removed and any holes left from pitfall traps would be infilled under ecological supervision. Boundary TAF will remain in place until all landscaping and development works are complete. Throughout the entire period, the fence will be monitored and maintained in a suitable condition to ensure no great crested newt can re-enter the works site. If the fence is damaged and not repaired immediately, and there is the potential for the fence to be breached by great crested newts, the 30 night trapping period may need to restart from day 1.

### ***Destructive hand searches***

- 5.5.9 Destructive hand searches of suitable terrestrial habitats will be undertaken by an experienced ecologist. This will involve hand searches amongst vegetation and beneath land surface debris, destructive searches of below-ground cavities including mammal burrows, rock debris and tree roots and removal of abandoned vehicles/accumulated materials prior to full site clearance during the active season. Suitable habitat includes scrub, hedgerow, long grassland and abandoned vehicles and accumulated materials. This destructive searching would be carried out after the trapping and exclusion programme has been successfully completed and between April - October when amphibians are active and out of hibernation.

### **Receptor Site Habitat Creation and Enhancement Measures**

- 5.5.10 The great crested newt receptor site associated with the proposed development is located approximately 0.487ha to the southwest of the site displayed in Figure 1. The receptor site is currently composed of poor semi-improved grassland, tall ruderal herbs and a small area of immature woodland. In order to mitigate for the loss of and disturbance to great crested newts.
- 5.5.11 In order to ensure the loss/disturbance to existing terrestrial habitat is appropriately mitigated and to ensure protected species mitigation requirements are sufficiently addressed (see following sections) the following habitat creation and enhancement measures will be incorporated into the receptor site.
- 5.5.12 New pond creation
- 5.5.13 Two new ponds will be created within the receptor site. Each pond will measure approximately 240m<sup>2</sup> with a circumference of approximately 55 metres. Each pond would have a maximum depth of 1.5 metres. It is not envisaged at this stage that ponds would require lining with waterproof membranes however, this would be subject to site investigation prior to commencing works. In the event that liners are required it is envisaged that a bentonite pond liner would be employed due to its durability and long life expectancy of this material in comparison to butyl or other synthetic pond liners.

- 5.5.14 Pond creation would be undertaken during May 2015 in order to ensure such habitats can be created and begin to mature prior to the release of protected species during spring/summer 2015.
- 5.5.15 Methods to be employed for the creation and enhancement of pond habitats on site will include the following measures.
- 5.5.16 Following creation of each pond the following flora will be planted as plugs along the margins of both ponds:
- Water mint *Mentha aquatica*;
  - Water forget-me-not *Myosotis scorpioides*;
  - Brooklime
  - Greater willowherb and
  - Gypsywort *Lycopus europus*.
- 5.5.17 Rather than being scattered across each pond within the receptor site, these five species will be planted in clumps spread across both ponds within the receptor site. Each clump will include 5 plants of each species planted at a density of 5 plugs /m2 within the ponds margins. Planting of immature plant plugs would take place during spring/summer 2015.
- 5.5.18 It is envisaged that the existing seed mix present within the soil will germinate to form a grassland community synonymous with the surrounding area however tall ruderal herbaceous growth will be kept in check during establishment either via direct application of herbicide (i.e. weed wipers) or cutting/pulling new growth.
- 5.5.19 In addition to new pond creation within the receptor site, three artificial refugia will be created and new hedgerow planting will be undertaken along the borders of the receptor site. Location of these terrestrial habitat features is displayed in Figure 2 and construction specification will follow that described within the great crested newt mitigation guidelines.

### Expected Outcome

- 5.5.20 The small population status of great crested newts will be maintained and enhanced as a result of the provision of new breeding ponds and terrestrial habitat features within the receptor site, which in the long term will be beneficial to great crested newts and also create a habitat that will increase biodiversity as a whole.

## 6 WORKS TIMEFRAME

6.1.1 A detailed works schedule for the proposed development site has not been fully established but would be determined upon receipt of full planning permission. Therefore, an outline timeframe matrix for the above conservation/mitigation works is provided in **Table 6**. Timeframes will be specifically amended where necessary and incorporated into EPSL application package and adhered to throughout the course of development works.

**TABLE 6: INDICATIVE MANAGEMENT PROGRAMME**

| Management Activity                                           | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Year 1 (2015)</b>                                          |     |     |     |     |     |     |     |     |     |     |     |     |
| Works to be undertaken under PWMS                             |     |     |     | ✓   | ✓   |     |     |     |     |     |     |     |
| Development works commence in Phase 1                         |     |     |     | ✓   | ✓   |     |     |     |     |     |     |     |
| Creation and enhancement of habitats within the receptor site |     |     |     | ✓   | ✓   |     |     |     |     |     |     |     |
| Submission of EPSL                                            |     |     |     | ✓   | ✓   |     |     |     |     |     |     |     |
| Receipt of EPSL                                               |     |     |     |     |     | ✓   | ✓   |     |     |     |     |     |
| Installation of Temporary Amphibian Fencing                   |     |     |     |     |     | ✓   | ✓   |     |     |     |     |     |
| 30 day capture and exclusion period                           |     |     |     |     |     |     | ✓   | ✓   |     |     |     |     |
| Destructive searches and removal of drift fencing             |     |     |     |     |     |     |     | ✓   | ✓   |     |     |     |
| Maintenance of TAF                                            |     |     |     |     |     |     |     |     | ✓   | ✓   | ✓   | ✓   |
| <b>Year 2 (2016)</b>                                          |     |     |     |     |     |     |     |     |     |     |     |     |
| Development works commence in phase 2.                        | ✓   |     |     |     |     |     |     |     |     |     |     |     |
| Monitoring and maintenance of boundary TAF.                   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| Pond and great crested newt population monitoring             |     |     |     | ✓   | ✓   | ✓   |     |     |     |     |     |     |
| <b>Year 3 (2017)</b>                                          |     |     |     |     |     |     |     |     |     |     |     |     |
| Monitoring and maintenance of boundary TAF.                   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| Pond and great crested newt population monitoring             |     |     |     | ✓   | ✓   | ✓   |     |     |     |     |     |     |
| Pond management                                               | ✓   | ✓   |     |     |     |     |     |     |     |     |     |     |
| Terrestrial habitat management                                |     |     | ✓   | ✓   |     |     |     | ✓   | ✓   |     |     |     |

| Year 3                                                                              |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------------------------------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Monitoring and maintenance of boundary TAF.                                         | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Pond and great crested newt population monitoring                                   |   |   |   | ✓ | ✓ | ✓ |   |   |   |   |   |   |
| Pond management                                                                     | ✓ | ✓ |   |   |   |   |   |   |   |   |   |   |
| Terrestrial habitat management                                                      |   |   | ✓ | ✓ |   |   |   | ✓ | ✓ |   |   |   |
| Year 4 onwards                                                                      |   |   |   |   |   |   |   |   |   |   |   |   |
| Monitoring and maintenance of boundary TAF.                                         | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Pond and great crested newt population monitoring                                   |   |   |   | ✓ | ✓ | ✓ |   |   |   |   |   |   |
| Pond management                                                                     | ✓ | ✓ |   |   |   |   |   |   |   |   |   |   |
| Terrestrial habitat management                                                      |   |   | ✓ | ✓ |   |   |   | ✓ | ✓ |   |   |   |
| Terrestrial habitat management (grassland cutting)                                  |   |   |   |   |   |   |   | ✓ | ✓ |   |   |   |
| Year 5 and onwards                                                                  |   |   |   |   |   |   |   |   |   |   |   |   |
| 5 Year review of management plan and implementation of amended management measures. |   |   |   |   |   |   |   |   | ✓ |   |   |   |

## **7 LONG TERM SURVEILLANCE, MANAGEMENT AND MONITORING**

7.1.1 SG Estates will appoint an Ecological Clarke of Works (EcOW) to undertake ecological Compliance Audit in relation to great crested newts (**Appendix 2**). Such an audit will be undertaken unannounced at key or sensitive periods during the project and annually during the course of the development project and during the sites operation to ensure an accurate record and assessment of circumstances on site.

7.1.2 The great crested newt Compliance Audit (**Appendix 2**) will evaluate monitoring activities in order to ensure the favourable conservation status of great crested newts is maintained and enhanced on site.

### **7.2 Long term safeguard and maintenance of great crested newt aquatic and terrestrial Habitat**

7.2.1 Detailed management will be determined upon completion of European Protected Species Licence Application (once planning permission has been obtained) but will follow the above programme. Any changes required to this management plan and the ecological compliance audit (annex 2) will be completed as necessary. SG Estates will appoint an appropriately qualified contractor to undertake management and maintenance practices as described above to ensure the long term maintenance and safeguard of great crested newt within the receptor site. Funding for such management is described in the following sections of this document and will apply for at least the first 5 year period. Future funding will be determined during the 5 year review of management practices on site. The client is currently in discussions with North Wales Wildlife Trust and North East Wales Wildlife regarding implementation of future management and maintenance. Such discussions will be finalised prior to applying for EPSL.

### **7.3 Long Term Surveillance**

7.3.1 Detailed requirements for long term monitoring will be determined during completion of EPSL application once planning permission has been obtained, however it is envisaged that due to the local population size and scale of impacts of the proposed development that presence absence surveys of ponds within the receptor site and 500m of the proposed development will be undertaken in year 1 and 2 from completion of capture and relocation works in accordance with the great crested newt mitigation guidelines (English Nature 2001).

## **7.4 Management Plan and Reviews**

- 7.4.1 A detailed management plan will be designed as part of the EPSL application which will incorporate the requirements of ecological compliance audit displayed in Annex 2.

## **7.5 Resource Provision**

- 7.5.1 SG Estates are committed to ensuring that the ecology of the receptor site is preserved in line with recommendations made in this document. A management company will be formed to enable the management of the receptor site in perpetuity.
- 7.5.2 It is envisaged that every householder on the new development will become a shareholder and pay an annual sum into the management company to enable the appropriate funds to be raised to cover any annual maintenance, management and monitoring costs associated with the great crested newt receptor site. This approach is to be agreed with the council and may be subject to legal agreement prior to application of EPSL in relation to great crested newts.

## **8 CONCLUSION**

- 8.1.1 While the proposed development will result in a net loss of available terrestrial habitat for great crested newts, the receptor site will provide enhanced foraging, resting and breeding habitat for the local population in comparison to the surrounding area. By implementing the above conservation strategy and management plan, it is envisaged that the local population of great crested newts will benefit from works associated with this project.
- 8.1.2 It is also considered that, provided the above measures are implemented, that works will avoid committing an offence under relevant legislation. In addition, the enhancement of habitat within the receptor site will contribute to the National and Local BAP objectives for great crested newts and will comply with the requirements of the local and national planning policy.

## **Annex 1 – Ecology reports (2005 & 2012)**

**LAND AT BRYN Y GROES HALL, GRESFORD**

**ECOLOGICAL ASSESSMENT**

**Final Report**



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| <b>TABLE OF CONTENTS</b>                             | <b>PAGE NO</b> |
|------------------------------------------------------|----------------|
| <b>1. INTRODUCTION</b>                               | <b>1</b>       |
| Terms of Reference                                   | 1              |
| Objectives of the Study                              | 1              |
| <b>2. LEGISLATIVE AND PLANNING POLICY CONTEXT</b>    | <b>2</b>       |
| National Planning Policy and Legislation             | 2              |
| Regional Planning Guidance                           | 2              |
| Statutory Development Plan                           | 3              |
| Biodiversity Action Plans                            | 3              |
| <b>3. CONSULTATION AND REVIEW OF EXISTING DATA</b>   | <b>4</b>       |
| Consultations                                        | 4              |
| Information Provided by Consultees                   | 4              |
| <b>4. METHODOLOGY</b>                                | <b>5</b>       |
| Extended Phase I Habitat Survey                      | 5              |
| Bat Survey                                           | 5              |
| Great Crested Newt Survey                            | 6              |
| Badger Survey                                        | 6              |
| Limitations                                          | 6              |
| <b>5. SURVEY RESULTS</b>                             | <b>8</b>       |
| Existing Conditions                                  | 8              |
| Bat Survey                                           | 8              |
| Great Crested Newt Survey                            | 8              |
| Badgers                                              | 10             |
| Other Protected Species                              | 10             |
| <b>6. DISCUSSION OF NATURE CONSERVATION INTEREST</b> | <b>11</b>      |
| Habitats                                             | 11             |
| Protected Species                                    | 11             |
| <b>7. IMPACTS AND LICENSING</b>                      | <b>13</b>      |

|    |                                                             |    |
|----|-------------------------------------------------------------|----|
|    | Bats                                                        | 13 |
|    | Great Crested Newts                                         | 15 |
|    | Badgers                                                     | 16 |
|    | Breeding Birds                                              | 16 |
| 8. | <b>OUTLINE MITIGATION AND REASONABLE AVOIDANCE MEASURES</b> | 17 |
|    | Bats                                                        | 17 |
|    | Great Crested Newts                                         | 17 |
|    | Badgers                                                     | 17 |
|    | Breeding Birds                                              | 18 |
| 9. | <b>CONCLUSIONS</b>                                          | 19 |

## 1. INTRODUCTION

### Terms of Reference

- 1.1 Young Associates (Environmental Consultants) Ltd was commissioned by Gordon Mytton Developments in August 2004 to undertake an ecological assessment and bat surveys of a proposed development site at Bryn y Groes Hall, Gresford (Grid ref: SJ347542). Further to this, great crested newt and badger surveys were commissioned in April 2005. The location of the site is shown in Appendix 1. Outline planning permission for residential development of the site has been granted by the Local Planning Authority, Wrexham County Borough Council, subject to a number of conditions. This report is submitted to fulfil the following conditions:

*"Condition 9. A full ecological survey shall be carried out in accordance with a brief to be agreed with the Local Planning Authority and submitted as part of the reserved matters application."*

*"Condition 11. No part of the development shall be commenced until a photographic survey of the existing buildings has been undertaken in accordance with a brief which has been first agreed with the Local Planning Authority. The resulting photographs shall be lodged with the Clwyd Powys Archaeological Trust, Church Street, Welshpool."*

- 1.2 This document reports the extended Phase I survey and bat survey carried out in August 2004, plus the great crested newt and badger surveys carried out in April/May 2005. It includes outline mitigation measures for these species.

### Objectives of the Study

- 1.3 The objectives of the study were:

- to document the protected species interest of the development site through consultation and survey;
- to evaluate the nature conservation interest of the application site;
- to collect a photographic record of the buildings on site;
- to identify impacts of the proposed development upon any protected species that may be present and;
- to recommend any further survey requirements, sensitive design principles and outline mitigation measures to minimise the identified impacts.

SJ347542

## 2. LEGISLATIVE AND PLANNING POLICY CONTEXT

### National Planning Policy and Legislation

- 2.1 Guidance on nature conservation planning policy is provided in the National Assembly for Wales Planning Division Technical Advice Note 5 (TAN 5 Nature Conservation and Planning: 1996). This is concerned both with the protection of statutorily designated sites and nature conservation in the wider countryside.
- 2.2 TAN 5 para. 28 states:
- "Statutory sites and non-statutory sites, together with features which provide wildlife corridors, links or stepping stones from one habitat to another, all contribute to the network necessary to ensure the maintenance of the current range and diversity of our flora, fauna, geological and landform features and the survival of important species. Sensitive landscaping and planting, the creation, maintenance and management of landscape features important to wildlife, and the skilled adaption of derelict areas can provide extended habitats".*
- 2.3 This paragraph recognises that careful planning can be used to reconcile nature conservation and development.
- 2.4 Planning Policy Wales (March 2002) identifies protected species as "a material consideration when a local 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." National legislation for the special protection of selected species is provided in the Wildlife and Countryside Act 1981, as amended. Schedule 5 provides special protection to selected animal species including bats, through paragraph 9(4) of the Act, against damage to "any structure or place which any wild animal (included in the schedule) uses for shelter and protection" and against disturbance whilst in such places.
- 2.5 Certain species, including bats, are provided additional protection through inclusion on Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994, which transpose into British law the European Community's Habitats Directive (92/43/EEC). This legislation extends protection against deliberate disturbance to animals anywhere that they occur and provides tests against which the permission for a development which may have an effect on a Schedule 2 protected species must be assessed, before permission can be given.
- 2.6 The Protection of Badgers Act 1992 provides protection to badgers and their setts.

### Regional Planning Guidance

- 2.7 The current Regional Planning Guidance for North Wales was published in July 2001. This document was adopted by Wrexham CBC as Supplementary Planning Guidance in July 2001. A number of strategies aimed at nature conservation are included:
- Protect the unique culture, natural and built environment (Chapter 4, Strategy);
  - Protect the designated sites of nature conservation and other conservation interests (Chapter 5, Environment: 5.1 - 5.3).

### Statutory Development Plan

- 2.8 The emerging **Wrexham Unitary Development Plan (UDP)** will supersede existing development plans within Wrexham County Borough. It was proposed for adoption in April 2004, and has therefore been referred to here. The relevant policies given within the UDP are as follows:
- 2.9 **GDP1(g)** *'All new development must not materially detrimentally affect issues of biodiversity, natural conditions, wildlife and habitats, and provide new habitats to compensate for significant loss'.*

### Biodiversity Action Plans

- 2.10 Biodiversity Action Plans (BAPs) are part of the British government's strategy for the implementation of the **1992 Convention on Biological Diversity**, to which it is a signatory. BAPs have been developed for the UK and devolved to local levels (LBAPs), to protect a number of rare species and habitats and reverse the declines of more widespread, but declining, species and habitats. BAPs and LBAPs do not at present have support from legislation or planning policy guidance. However, under the **Countryside and Rights of Way Act 2000** (the CRow Act), the National Assembly for Wales has a legal duty to have regard to the purpose of conserving biodiversity. A list of Species and Habitats of Principal Importance for the Conservation of Biodiversity has therefore been prepared by CCW, under Section 74 of the CRow Act. The majority of those species and habitats within this list currently have, or will soon have, Habitat or Species Action Plans in place under the BAP system.
- 2.11 Planning Policy Wales, to which local authorities must have regard when preparing Unitary Development Plans, sets out policies for the conservation of biodiversity. Therefore, as a matter of best practice, BAP and LBAP bat species and habitats have been given due regard in this assessment.
- 2.12 In addition to the overall UK BAP, the area affected by the development is covered by the **Wrexham Biodiversity Action Plan**. This plan contains habitats and species action plans and makes reference to species of conservation concern within the county. For full details refer to <http://www.wrexham.gov.uk>.

### 3. CONSULTATION AND REVIEW OF EXISTING DATA

#### Consultations

- 3.1 At the commencement of the commission, Young Associates carried out a consultation exercise in order to establish whether there were any pre-existing biological data available for the site and its surroundings, and to provide consultees with an opportunity to provide views on the scope of the protected species assessment. The following organisations were contacted through a combination of e-mails and telephone conversations:

- Wrexham County Borough Council - A. Davies
- The Countryside Council for Wales - M. Ellis, D. Hatcher
- Clwyd Bat Group - M. Castle
- Clwyd Badger Group - B. Lee

#### Information Provided by Consultees

- 3.2 The Countryside Council for Wales advised that a statutory designated Site of Special Scientific Interest (SSSI), Vicarage Moss, lies within 1km of the site. This SSSI also forms part of Midland Meres and Mosses Ramsar site. The scale of the development proposed at Bryn y Groes, the distance of the site from the SSSI and the nature of the interest of the SSSI means that there is no impact to this site from the developments. This is therefore not considered further in this report.

- 3.3 The Countryside Council for Wales also provided the following species records:

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| Within 500m <sup>1</sup> of the site: | one record for great crested newt <i>Triturus cristatus</i> |
| Between 500m and 1km:                 | two records for great crested newt                          |
|                                       | one otter <i>Lutra lutra</i> record                         |
|                                       | one water vole <i>Arvicola terrestris</i> record            |
|                                       | eight bat records                                           |
|                                       | five badger <i>Meles meles</i> records and;                 |
|                                       | one record of grass snake <i>Natrix natrix</i> .            |

- 3.4 A copy of the plan sent by CCW can be found in Appendix 2.
- 3.5 Clwyd Badger Group provided details of a sett at Caia Farm to the east of the site, which was reported to be active when visited in by the badger group in 2003.
- 3.6 The remaining consultees have yet to make comment.

<sup>1</sup> 500m is the accepted distance from a breeding pond where the majority of the adult great crested newt population will be present.

#### 4. METHODOLOGY

##### Extended Phase I Habitat Survey

- 4.1 Two ecologists visited the site on the 31<sup>st</sup> August 2004 and carried out an Extended Phase I Habitat Survey. The process of ecological baseline assessment is described in "Nature Conservation in Environmental Assessment" published by English Nature (1994) and in the "Guidelines for Baseline Ecological Assessment" produced by the Institute of Environmental Assessment (1995). Updated guidelines are in the process of being produced by the Institute of Ecology and Environmental Management, but have yet to be published.
- 4.2 Young Associates (Environmental Consultants) Ltd employs a preliminary survey method that we refer to as an "extended" Phase I survey. Phase I survey is a standardised method of recording habitat types and characteristic vegetation, as set out in the "Handbook for Phase I Habitat Survey – a technique for Environmental Audit" published by the Joint Nature Conservation Committee (JNCC 1993). Plant species nomenclature follows Stace, 1997.
- 4.3 At Young Associates we enhance this survey method through the additional recording of specific features indicating the presence, or likely presence, of protected species or other species of nature conservation significance. The site is subject to a thorough walkover and descriptive "target notes", are made for characteristic habitats, features of ecological interest, or any other features which require note to aid ecologically sensitive design or mitigation.
- 4.4 This method of survey enables us to obtain an understanding of the ecology of a site such that we can either:
1. Confirm the conservation significance of the site and assess the potential for impacts on habitats/species likely to represent a material consideration in planning terms, or,
  2. Ascertain that further surveys of certain aspects of the site's ecology will be required before such confirmation can be made.
- 4.5 This methodology has been used by Young Associates ecologists in all of our ecological assessments for more than five years. It is recognised by the Institute of Environmental Management and Assessment and has met with the approval of statutory conservation agencies and the planning authorities in all schemes with which we have been involved, including cases where designated sites of conservation value have been present.

##### Bat Survey

- 4.6 A daytime visit was made on the 31<sup>st</sup> August 2004 by two surveyors, one a licensed bat worker (J Colebrook, CCW licence number OTH:CSAB:25:2004) to visually inspect and assess the buildings and trees for bats and evidence of use by bats. Evidence searched for included:
- Staining, beneath or around a hole, caused by the natural oils in bat fur.
  - Scratch marks around a hole caused by bat claws.
  - Bat droppings beneath a hole, or resting area.
  - Bat droppings and/or insect remains beneath a feeding area.
  - Audible squeaking, from within the hole, especially on hot days or at dusk.
  - Insects, especially flies, around a hole.
  - A characteristic odour of bats and/or droppings.
  - Dead bats - usually young from a nursery roost site.

- 4.7 In addition, the site and its wider surroundings were assessed for their potential to provide suitable foraging habitat for support bat species. Bat roosts are found in many places such as buildings, bridges, trees, underground, etc. The most commonly recorded sites around buildings including gable ends, below ridge tiles, under roof slates/tiles, behind soffits or barge boards, within cavity walls, behind cladding, as well as in loft spaces, cellars, etc. Access to these spaces is usually through a small hole or crack, for example around pipe work fittings, below damaged or poorly fitting slates/tiles, under flashing, through gaps near window frames/sills, or through ventilation apertures.

- 4.8 A dusk emergence survey was undertaken on 31<sup>st</sup> August 2004 to confirm whether the buildings were used as bat roosts and to identify bat access points, if any. Four surveyors with heterodyne bat detectors observed the property from half an hour before sunset until 1.5 hours after and recorded the times bats were seen, where they emerged from, if known, and in which direction they were flying.

#### Great Crested Newt Survey

- 4.9 All ponds within 500m of the development site, with the exception of a pond at Caia Farm to which access was unavailable, were subject to great crested newt survey. A suite of survey visits to determine presence/absence was commenced in mid-April 2005 and was completed by June 2005. As great crested newts were discovered during an early site visit the total site visits required is five in order to complete a population size class assessment. The survey was undertaken following current best practice guidelines<sup>2</sup>.

#### Badger Survey

- 4.10 A site walkover during daylight hours was undertaken in April 2005. Evidence of the presence of badgers was sought including setts, latrines, dung pits, footprints and hairs. The site and immediate surroundings were thoroughly searched for all such evidence, with additional recording made from Public Rights of Way and during access to ponds on adjacent land for great crested newt surveys.

#### Limitations

- 4.11 Lack of evidence of protected species does not necessarily preclude their being present on site at a later date. Particularly in relation to use of structures by bat species, use of a specific structure or area of land can significantly vary not only on a seasonal basis but also from day to day. However, each survey was undertaken at an appropriate time of year for the species studied, during their most active phase when evidence of their presence would be easiest to detect.
- 4.12 It was not possible to gain internal access to the buildings on site, and the exterior could not be surveyed closely, due to the dilapidated state of the building and the dense covering of ivy. This is not considered to compromise the conclusions set out below.

<sup>2</sup> CCW Guidance Sheet 6 Great Crested Newt Level III Survey: minimum five counts employing a number of night-time survey techniques, including egg searching, torchlight surveys and bottle-trapping, with at least three visits between mid-April and mid-May and undertaken during suitable weather conditions.

- 4.13 There was no permission to access the pond at Caia Farm, therefore no great crested newt surveys were carried out on this pond. However, it is considered that this constraint would not materially affect the findings of this survey, in terms of population size assessment.
- 4.14 The vegetation in parts of Pond 2 was very dense, which made torch surveys difficult. However, given the combination of methods used, it is considered that this minor constraint will not have compromised the quality of the survey data or the conclusions that can meaningfully be drawn from it in relation to this pond.

## 5. SURVEY RESULTS

### Existing Conditions

- 5.1 The site is approximately 2.5 ha in size and is located at national grid reference SJ347542, on the south side of Gresford near Wrexham. It is comprised of Bryn y Groes Hall and adjacent stable/barn, both of which are now very derelict, and their associated grounds. The Hall has not been occupied for many years, and the site has been left unmanaged. The area now comprises of a mixture of mature planted broadleaved woodland, large areas of tall ruderal species, small areas of semi-improved neutral grassland, a small pond, scrub and a number of patches of Japanese Knotweed *Fallopia japonica*. It appears that the area around the hall has been used to store vehicles and various other scrap for quite some time and there are two derelict portacabins behind the main hall. Refer to Appendix 3 for the Phase I habitat plan of the site including target notes.

### Bat Survey

#### Daytime search for roosts

- 5.2 Both the hall and stable/barn are of brick construction with a slate tiled roof. The hall also has a number of chimneys and a dense covering of ivy over the majority of the outside. There are a number of missing roof sections and missing/broken windows, as well as holes in the walls themselves. The floors and ceilings are absent downstairs. The remaining intact sections of roof appear to offer loft spaces ideal for brown long-eared bats *Plecotus auritus*, and possibly pipstrelles *Pipistrellus* species. Large wooden eaves are present in places around the building. The adjacent land provides high quality foraging habitat for bats. Refer to Appendix 4 for photographs of the buildings.
- 5.3 A large proportion of the mature trees on site have a high potential for roosting bats due to the presence of dead wood, cracks and a covering of ivy. As a significant number of trees on site are assessed as having the potential to support bat species, individual tree survey of this wooded site is impracticable. Mitigation will be needed for the loss of potential roost sites.

#### Dusk survey

- 5.4 The emergence survey confirmed that the old hall is used as a bat roost. At least 18 pipistrelle bats were recorded emerging from the ivy on the outside of the building, as well as from the gable ends on the south west side of the property. Common pipistrelle bats *Pipistrellus pipistrellus* were recorded feeding around the old hall and were concentrated toward the rear of the property close to the woodland. Refer to Appendix 5 for further details of each bat observed.

### Great Crested Newt Survey

- 5.5 The single on site pond was dry at the time of the November survey and by April still held very little water. Nevertheless it showed little potential as a breeding site for great crested newts. The surrounding terrestrial habitat present on the development site represents excellent foraging and shelter for the species. This continues to be the case, with rubble piles, rough grass, woodland and bramble patches available across the entire site.
- 5.6 There are six waterbodies within 500m of the site, of which five have been surveyed and two confirmed as great crested newt breeding ponds. Smooth newts are also present, but palmate newts are absent.

- 5.7 The following table details the great crested newt survey results, undertaken between mid-April and June 2005 during suitable weather conditions. Ponds 1 and 2 were not surveyed during the first visit. Refer to the plan in Appendix 5 for details of pond locations and descriptions.

Table 1 : Results of 2005 Great Crested Newt Surveys at Bryn y Groes, Gresford.

| Pond no.                                     | Survey method    | Date of Survey Visits in 2005 |                        |                        |                      |                      |
|----------------------------------------------|------------------|-------------------------------|------------------------|------------------------|----------------------|----------------------|
|                                              |                  | 19 <sup>th</sup> April        | 26 <sup>th</sup> April | 27 <sup>th</sup> April | 23 <sup>rd</sup> May | 24 <sup>th</sup> May |
| GREAT CRESTED NEWT <i>Triturus cristatus</i> |                  |                               |                        |                        |                      |                      |
| 1                                            | Egg searching    | yes                           | yes                    |                        |                      |                      |
|                                              | Torching         | 0                             | 1m                     | 0                      | 1m,1f                | 1f,1u                |
|                                              | Bottle- trapping | 0                             | 1f                     | 0                      | 0                    | 0                    |
| 2                                            | Egg searching    | 0                             | 0                      | 0                      | 0                    | 0                    |
|                                              | Torching         | 0                             | 0                      | 1u                     | 0                    | 0                    |
|                                              | Bottle- trapping | 1f                            | 0                      | 0                      | 0                    | 0                    |
| 3                                            | Egg searching    | 0                             |                        |                        |                      |                      |
|                                              | Torching         | 0                             |                        |                        |                      |                      |
|                                              | Bottle- trapping | 0                             |                        |                        |                      |                      |
| 4                                            | Egg searching    |                               | 0                      | 0                      | 0                    | 0                    |
|                                              | Torching         |                               | 0                      | 0                      | 0                    | 0                    |
|                                              | Bottle- trapping |                               | 0                      | 0                      | 0                    | 0                    |
| 5                                            | Egg searching    |                               | 0                      | 0                      |                      |                      |
|                                              | Torching         |                               | 0                      | 0                      |                      |                      |
|                                              | Bottle- trapping |                               | 0                      | 0                      |                      |                      |
| SMOOTH NEWT <i>Triturus vulgaris</i>         |                  |                               |                        |                        |                      |                      |
| 1                                            | Egg searching    | 0                             | 0                      |                        |                      |                      |
|                                              | Torching         | 0                             | 0                      | 0                      | 0                    | 0                    |
|                                              | Bottle- trapping | 0                             | 0                      | 0                      | 0                    | 0                    |
| 2                                            | Egg searching    | 0                             | 0                      | 0                      | 0                    | 0                    |
|                                              | Torching         | 0                             | 0                      | 0                      | 0                    | 0                    |
|                                              | Bottle- trapping | 1m                            | 0                      | 2m                     | 0                    | 0                    |
| 3                                            | Egg searching    | 0                             |                        |                        |                      |                      |
|                                              | Torching         | 0                             |                        |                        |                      |                      |
|                                              | Bottle- trapping | 0                             |                        |                        |                      |                      |
| 4                                            | Egg searching    |                               | 0                      | 0                      | 0                    | 0                    |
|                                              | Torching         |                               | 0                      | 0                      | 0                    | 0                    |
|                                              | Bottle- trapping |                               | 0                      | 0                      | 0                    | 0                    |
| 5                                            | Egg searching    |                               | 0                      | 0                      |                      |                      |
|                                              | Torching         |                               | 0                      | 0                      |                      |                      |
|                                              | Bottle- trapping |                               | 0                      | 0                      |                      |                      |

m = male; f = female; u = sex unknown. Shading indicates method not employed

- 5.8 In summary, GCNs were confirmed in two ponds. Great crested newt eggs, a male and a female GCN were recorded in pond 1. One female GCN and another of unknown sex were recorded in pond 2.

**Badgers**

- 5.9 A large, active, breeding badger sett present close to the boundary of the site. The sett consists of 18 holes dug into an area of sandy spoil, and is obviously in active use as evidenced by recent bedding, badger hairs and prints at the entrances.
- 5.10 Paths from the sett take routes across the proposed development site, though no further setts or latrines were discovered on site. Paths also lead directly away from the sett and into the adjacent arable field. A careful search of the hedges around this field indicates that the badgers move from this field, across the lanes and into the nearby pastures.

**Other Protected Species**

- 5.11 Bryn y Groes Hall may represent suitable barn owl *Tyto alba* nesting habitat. The dangerous nature of the building prevented an internal search for signs. Although no specific breeding bird survey has been undertaken, the site is considered highly suitable for breeding birds due to the range of habitats present. Many common garden (passerine) species have been noted during surveys.
- 5.12 The site offers some scope for use by reptiles. There are areas of bare ground and rubble heaps which could be used for basking, with scrub and rubble adjacent for the reptiles to shelter within. No specially protected species of reptile occur in this part of North Wales. Nevertheless, common species may be present.
- 5.13 Evidence of other protected species was not recorded at the time of survey.

## 6. DISCUSSION OF NATURE CONSERVATION INTEREST

### Habitats

- 6.1 The habitats present at Bryn y Groes are not species rich, are common locally and nationally and no uncommon plants were observed during surveys.
- 6.2 The woodland is perhaps the most valuable habitat in terms of nature conservation interest because although not inherently species rich or unusual, it provides potential roosting and foraging for bats, plus potential shelter and hibernation sites for amphibians as well as nesting sites for birds.
- 6.3 The pond on site is at an advanced stage of ecological succession, and was dry during the November survey. It does not contain aquatic or marginal plants of nature conservation value.

### Protected Species

#### Bats

- 6.4 Bryn y Groes Hall is confirmed as a pipistrelle bat roost. At least 18 bats were observed leaving the building, and this is likely to be an underestimate of the total number of bats using the site. The bats appear to be using the thick ivy on the south east and north east elevations as a roost site, although given the dilapidated state of the property, there may be crevices allowing access to the building that the ivy obscures from view. A full inspection of the building is impossible for health and safety reasons so it is impossible to verify which parts of the hall, if any, the bats may be using. Further more intensive night time survey at an appropriate time of year may be able to narrow down the entrance/exit points and better confirm the number of bats using the building.
- 6.5 As pipistrelle bats use a variety of roosts throughout the year, and given the presence of a roost and high quality foraging habitat there is a high probability that some of the mature trees on site contain roosts, despite the lack of evidence to confirm this. In general terms this is all trees that contain rot holes or splits, cracks or deadwood, and those covered in a dense layer of ivy.

#### Great crested newts

- 6.6 Great crested newts were recorded in two of the ponds surveyed, Pond 1 which lies approximately 130m south of the site boundary and Pond 2 which lies approximately 320m to the south west of the site boundary (Figure 1). A maximum of two great crested newts were recorded on any one night in Pond 1, and only a single great crested newt in Pond 2. Great crested newt eggs were recorded in Pond 1 and both a male and female great crested newt were recorded in Pond 2, which suggests that breeding is likely to have taken place.
- 6.7 Published guidance on population size class assessment classifies populations as:
- 'small' for maximum counts up to 10
  - 'medium' for maximum counts between 11 and 100; and
  - 'large' for maximum counts over 100.

- 6.8 Using this guidance, both ponds 1 and 2 would be classified as having a small population size class. By totalling the counts for all ponds, these same classifications are then used to give an overall site population size assessment. Again, this results in a small population size class for the site.
- 6.9 No great crested newts were found on the site itself, and the two ponds found to support breeding great crested newts, in very low numbers, will not be affected by the proposals for the development of the site. Given the very small number of GCNs present it is considered likely that sufficient foraging habitat exists around the breeding ponds (i.e. off site) to sustain the population. However, the application site does contain ideal terrestrial habitat for great crested newts and, given that it is only approximately 130m away from a known breeding pond, and is located in an area where ponds and hedges are common, there remains the possibility that great crested newts could use the site.

#### Badgers

- 6.10 The active badger sett on site appears to be a main sett for this particular clan. Consultation with Clwyd Badger Group provided details of another main sett at Caia Farm and CCW records also confirm that there are more setts within 1km of the site. The area is therefore well used by badgers. The territory of the Bryn y Groes clan is currently unclear, however boundary searches suggest the badgers cross from the proposed development site into the adjacent arable field and out into the nearby improved pasture.

#### Other protected species

- 6.11 In addition, given its dilapidated state, barn owls *Tyto alba* may use Bryn y Groes Hall for nesting and roosting. There may also be available roosts within some of the old large trees within the woodland. No evidence of barn owl use of the application site has been found to date.
- 6.12 It is considered that the site is of high quality for breeding birds given the presence of woodland, scrub, mature trees and old buildings.

## 7. IMPACTS AND LICENSING

- 7.1 The proposed development involves development of the site for residential use. Given the strength of protected species legislation, case law and guidance it is surprising that planning permission has been granted on this site in advance of protected species surveys having been undertaken. The proposed development will involve the demolition of the hall, and the removal of most of the trees. This will have significant impacts upon the species that are currently upon the site including species with statutory protection. The presence of European protected species for which a license is required for any activity likely to disturb also has legal implications for the developer. The technical and legal issues are discussed in this section.

### Bats

- 7.2 Bats are confirmed as roosting within Bryn y Groes Hall. There is also a strong possibility that bats may be present within as yet undiscovered roosts within suitable mature trees on the application site. As the hall is scheduled for demolition, the proposed development will destroy at least one known bat roost.

### Legislation

- 7.3 All species of bat are listed on Schedule 5 of the Wildlife and Countryside Act 1981, as amended (WCA), and are therefore subject to the provisions of Section 9 which make 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 [S 9(2)]
  - Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a bat [S 9(4)(a)]
  - Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for that purpose [S 9(4)(b)]
- 7.4 In addition, all bats are listed on Annex IV of the Conservation (Natural Habitats, &c.) Regulations 1994 (the Habitats Regulations). Regulation 39 makes it an offence to:
- Deliberately capture or kill a bat [Regulation 39(1)(a)]
  - Deliberately disturb a bat [R. 39(1)(b)]
  - Damage or destroy a breeding site or resting place of a bat [R. 39(1)(d)]
  - Keep, transport, sell or exchange, or offer for sale or exchange a live or dead bat or any part of a bat [R. 39(2)]
- 7.5 Exceptions to the above provisions exist, for example to include the "mercy killing" of severely injured bats. There is also the defence to the offences listed where "the act was the incidental result of a lawful operation that could not reasonably have been avoided" [S.10(3)(c) of the WCA and R.40(3)(c) of the Habitats Regulations]. Finally, there is a defence against offences involving the disturbance of bats or the damage, destruction or

obstruction of bat roosts where the action took place within a dwelling house [S. 10(2) of the WCA and R.40(2) of the Habitats Regulations].

- 7.6 The proposed demolition of the building will have a significant impact on the resident bats and an NAW licence will be needed before work can begin.

#### Licensing

- 7.7 Consultation with CCW Licensing Section suggests that in this instance a National Assembly for Wales licence in respect of development should be sought.

- 7.8 Licences permit otherwise unlawful activities, and can only be granted for certain purposes. The Welsh Assembly Government issue licences for the purposes of "preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment" [R. 44(2)(e)].

- 7.9 In every case, a licence cannot be granted unless:

*"There is no satisfactory alternative" [R. 44(2)(e)]*

*"The action authorised will not be detrimental to the maintenance of the population concerned at a favourable conservation status in their natural range" [R. 44(3)(b)].*

- 7.10 Given the scale of the proposed residential development, the fact that the hall has become derelict beyond economic repair, it may prove possible meet the first two tests set by NAW to consider.

- 7.11 If the first two tests can be met, it must additionally be demonstrated whether and how the favourable conservation status of the bats resident at Bryn y Groes Hall will be maintained. They must therefore be taken into consideration throughout the life of the proposed development. Detailed method statements regarding the scheduling and conduct of works of will need to be agreed in consultation with CCW and submitted as part of an NAW licence application. Reasonable avoidance measures shall be implemented where appropriate, the scheduling of works shall be such that disturbance of bats is minimised, roosts will be re-instated following development and best practice methods will be followed throughout.

- 7.12 In order to obtain a licence to allow the disturbance of the bat roosts, in advance of any development which may impact on the favourable conservation status of the bats, it must be demonstrated that all reasonable steps have been taken to minimise the impact and any remaining damage will be compensated for. Therefore, mitigation should aim to maintain a population of equivalent status in the Gresford area.

#### Fines and Penalties

- 7.13 The maximum fine on conviction of offences under Section 9 and Regulation 39 currently stands at £5000 per bat. Fines may be imposed in relation to each offence committed, so operations involving many animals may potentially accrue large fines. The CRow Act 2000 allows for a custodial sentence of up to 6 months instead of, or in addition to, a fine.

**Great Crested Newts**

- 7.14 GCNs are protected during the terrestrial phase of their annual lifecycle, when they rely on land surrounding their breeding ponds for shelter, foraging and hibernation sites. Guidance is therefore to consider land within approximately 500m of ponds as potentially supporting GCNs. This means that consideration of GCNs may be required where a proposed application area lies within 500m of a waterbody used, or with potential to be used, as a GCN breeding site on neighbouring land. This is the situation at Bryn y Groes.
- 7.15 Great crested newts are listed on Schedule 5 of the Wildlife and Countryside Act 1981, as amended (WCA), and are therefore subject to the provisions of Section 9 which make it an offence to:
- Intentionally kill, injure or take a GCN [Section 9(1)]
  - Possess or control any live or dead specimen or anything derived from a GCN [S 9(2)]
  - Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a GCN [S 9(4)(a)]
  - Intentionally or recklessly disturb a GCN while it is occupying a structure or place which it uses for that purpose [S 9(4)(b)]
- 7.16 In addition, GCNs are listed on Annex IV of the Conservation (Natural Habitats, &c.) Regulations 1994 (the Habitats Regulations). Regulation 39 makes it an offence to:
- Deliberately capture or kill a GCN [Regulation 39(1)(a)]
  - Deliberately disturb a GCN [R. 39(1)(b)]
  - Damage or destroy a breeding site or resting place of a GCN [R. 39(1)(d)]
  - Keep, transport, sell or exchange, or offer for sale or exchange a live or dead GCN or any part of a GCN [R. 39(2)]
- 7.17 Surveys have confirmed that a small population of GCNs use the ponds around the application site for breeding. The closest breeding pond exists 130m south of the application site, and therefore newts may be present within the application area during the terrestrial phase of their lifecycle. This being the case, they may be disturbed by the proposed development. Consultation with CCW suggests that in this instance an NAW licence will be needed in respect of development prior to the commencement of works. Licensing arrangements for GCNs are the same as for bats (see above).
- 7.18 In order to obtain a licence to allow the potential disturbance of GCNs, in advance of any development which may impact on the favourable conservation status of the GCNs, it must be demonstrated that all reasonable steps have been taken to minimise the impact and any remaining damage will be compensated for. Therefore, mitigation should aim to maintain a population of equivalent status in the Gresford area

### Badgers

- 7.19 An active badger sett is present within the boundary of the application site. Badgers and their setts are protected by the Protection of Badgers Act 1992. Under this Act it is an offence to damage, destroy or obstruct access to a badger sett, and also to disturb a badger whilst it is occupying a sett.
- 7.20 Undertaking an activity within 30 metres of the badger sett, which could result in damage to the sett, obstructing access to it or disturbance of any occupying badgers, may constitute an offence. This distance may be extended to 100 metres if the activity involves blasting or pile-driving.
- 7.21 Countryside Council for Wales, the statutory conservation authority, are empowered under the 1992 Act to issue a licence permitting potentially damaging or disturbing activities to be undertaken within 30 metres or 100 metres of a badger depending on the nature of the activity undertaken as part of a local authority consented development.
- 7.22 A licence may also be granted for the exclusion of badgers from a sett and the ultimate destruction of the sett feature. An assessment of the impact of this action and the provision of appropriate mitigation measures are usually a pre-requisite to granting a destruction licence. Licences are normally only granted between 1st July and 30th November of any year.
- 7.23 It has been impossible to incorporate the badger sett into the open space within the development, and therefore it is proposed to close and destroy the sett under licence from CCW.

### Breeding Birds

- 7.24 The site contains habitats that are of value to a range of breeding birds. All bird species and their nests are protected under the Wildlife and Countryside Act 1981 (as amended), during the nesting period.
- 7.25 At this site, barn owls may be present. Barn owls, along with several other bird species, are afforded an extra degree of protection, and are included on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) making it an offence to disturb them while they are building, in, on, or near their nests.
- 7.26 The demolition of Bryn y Groes Hall and the removal of the trees will significantly decrease the available nesting sites and therefore adversely affect the breeding birds that would otherwise use the site.

## 8. OUTLINE MITIGATION AND REASONABLE AVOIDANCE MEASURES

### Bats

- 8.1 A detailed method statement in relation to the demolition of Bryn y Groes Hall will be required as part of the NAW licence application. In order to inform the application, additional survey will be needed to more accurately assess species numbers and roost locations. The demolition of the hall will need to be undertaken at a time of year when bats are least vulnerable to disturbance such as mid-April to mid-May and the month of October. Subject to health and safety requirements, the property will also need to be carefully dismantled in order not to harm any bats that may be resident.
- 8.2 Reasonable Avoidance Measures (RAMs) are recommended for all other works that may affect a potential, but unconfirmed bat roost on site. This includes demolition of the outbuildings adjacent to the hall, and works that affect trees which contain potential roost features. The RAMs must be adhered to by the contractor undertaking the work. RAMs for tree work will include the scheduling of the work, soft-felling of certain sections, wedging gaps or cracks prior to felling and retaining felled sections upright on site for several days before removal.
- 8.3 Mitigation for the loss of the pipistrelle roost at Bryn y Groes Hall will be included in the new properties on site. In addition, bat boxes will be erected on the suitable remaining trees. Mitigation for the loss of foraging habitat will include the planting of additional species rich hedgerows at the site boundary.

### Great Crested Newts

- 8.4 A detailed method statement in relation to the potential disturbance of GCNs at Bryn y Groes will be required as part of the NAW licence application. The site will need to be fenced and cleared of GCNs prior to the commencement of works. The newt proof fence will have to be maintained for the duration of construction works on site. Once site works are complete, the fence can be removed and GCNs allowed back on to the site.
- 8.5 The public open space present at the centre of the application site will be maintained for the benefit of GCNs. Grassland areas further than approx 1m from paved surfaces will be mown no shorter than 10cm. Woodland areas will be allowed to retain a wild character, and contain rubble piles or deadwood piles suitable for hibernation sites. An amphibian tunnel will be installed beneath the road (refer to masterplan) to allow all amphibians and small mammals access to and from the wider countryside.
- 8.6 Mitigation for the loss of foraging habitat will include the planting of additional species rich hedgerows at the site boundary. The on site pond will also be cleared of choking vegetation, and re-dug in order to increase its suitability as a GCN breeding pond.

### Badgers

- 8.7 A detailed method statement for the badger sett closure at Bryn y Groes will be required as part of the CCW licence application. No work can be undertaken within 30m of the existing sett until a licence is obtained. Third party land immediately west of Pikey Lane has been acquired for the purpose of artificial sett construction, which will have to occur prior to closure of the existing sett. The existing sett will be closed during July – November when badgers are least sensitive to disturbance.

- 8.8 Mitigation for the loss of foraging habitat will include the planting of additional species rich hedgerows at the site boundary. The public open space will also be maintained such that it is of use to foraging badgers.

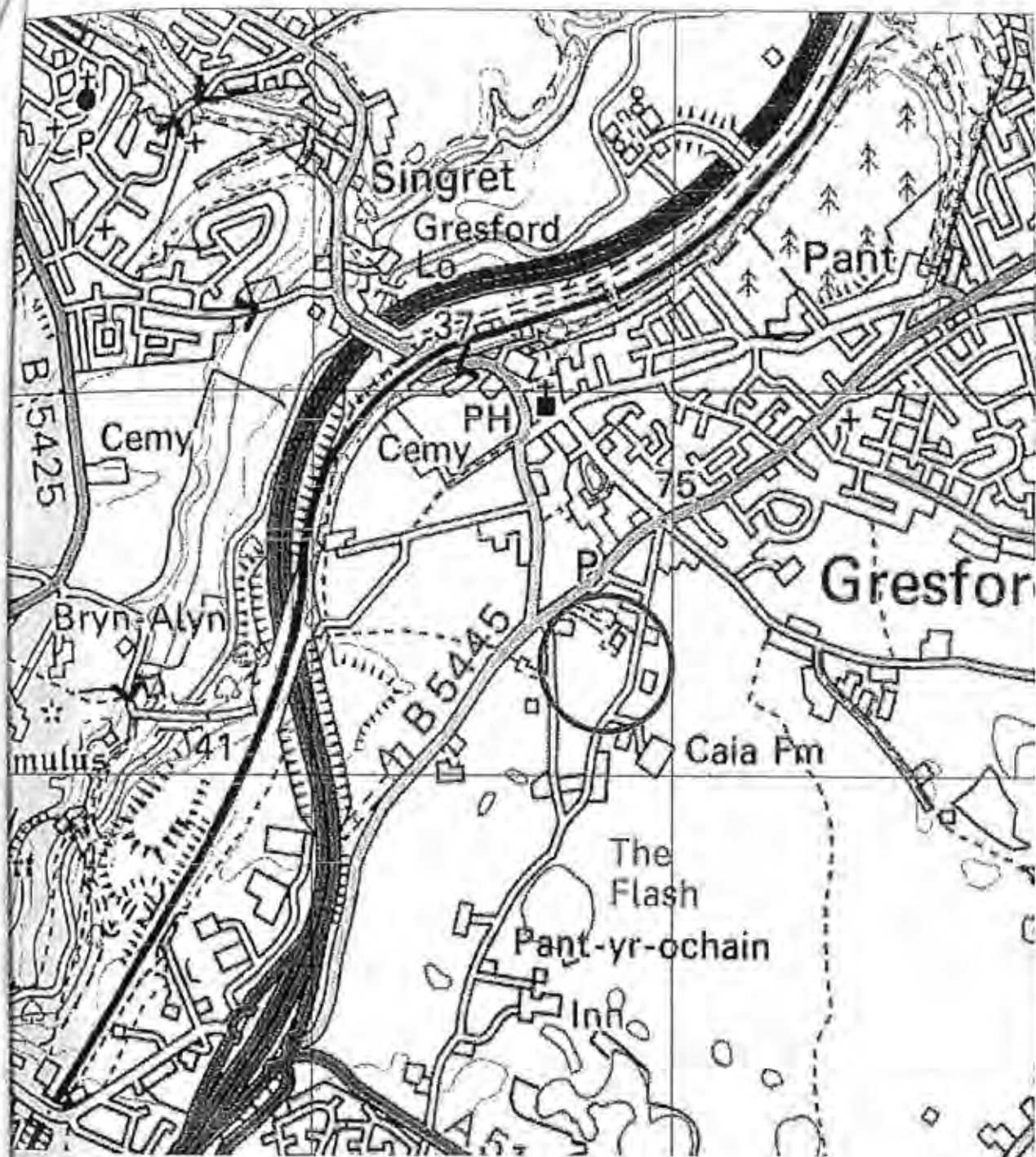
**Breeding Birds**

- 8.9 Prior to demolition, Bryn y Groes Hall will be checked for signs of use by barn owls that may have moved in since previous surveys.
- 8.10 Removal of trees and shrubs from the site shall take place outside the breeding season for birds. Where removal of trees and shrubs during the bird breeding season is unavoidable, a check of that vegetation for occupied nests shall be carried out by a suitably experienced ecologist immediately prior to the clearance of those trees and shrubs, and all reasonable measures will be implemented to protect active nest sites from damage.

## CONCLUSIONS

- 9.1 This ecological survey report has provided baseline data on habitats and species with potential to be affected by the proposed development at Bryn y Groes, Gresford. Details are summarised below. A number of statutory protected species are present on site, and these represent a material consideration in planning terms.
- 9.2 No habitats or plant species of inherent nature conservation value were discovered during the course of surveying. The most valuable habitat on site is the broadleaved woodland, as it can sustain populations of birds, bats, amphibians, reptiles and a range of other mammals.
- 9.3 Bryn y Groes Hall is a confirmed pipistrelle bat roost. Bats and/or evidence of bats was not found elsewhere on site, though the survey was somewhat constrained by the dangerous nature of the buildings.
- 9.4 The proposed development involves the demolition of the Hall and therefore the disturbance of the roost. This is considered as having a significant impact on the bats that use the site, and it will be appropriate to consider mitigation under licence from the National Assembly for Wales if permission is granted. This shall ensure that any individual bats present are excluded from the working area during operations, and that provision of suitable new roosting areas are included in the redevelopment of the site.
- 9.5 No evidence of bats was found within the woodland, but given that pipistrelles roost nearby it is very likely they use the trees too. As tree roosts are notoriously difficult to find, further survey of the trees is unlikely to be able to confirm this. For this reason it is recommended that the best way forward is to implement best practice measures for all tree works on site. Reasonable Avoidance Measures to minimise impacts on bats include the scheduling of works and method of felling for trees that contain features of use to bats should be in place before work starts. Ideally a licenced batworker should meet with the arboricultural contractor undertaking the work, and if necessary remain on call/watching brief while the work is undertaken.
- 9.6 Subject to appropriate mitigation, it is considered that the proposed development of this site is unlikely to be detrimental to the maintenance of the population of pipistrelle bats in their current range in this part of Gresford at favourable conservation status.
- 9.7 Great crested newts breed within 130m of the site, which itself contains habitats that great crested newts may use during their terrestrial phase. The proposed development includes the clearing of vegetation and therefore the potential disturbance of great crested newts. Although this is considered as unlikely to have a significant impact on the local population, CCW has indicated that if permission is granted such work would need to be undertaken under licence from National Assembly for Wales.
- 9.8 An active breeding badger sett is present on site. Undertaking an activity within 30 metres of the badger sett, which could result in damage, disturbance or destruction to the sett will require a licence to be issued by CCW in advance of works. This will require suitable mitigation to be in place and for this reason an artificial sett will be built on recently acquired third party land within very close proximity to the application site.
- 9.9 Breeding birds will use the habitats present on site during the months March - July inclusive. All site clearance works should take place outside of this period if at all possible. If this is not possible, the area to be cleared must be checked for nests by an ecologist immediately prior

to the commencement of work, with the provision of retaining vegetation/structures that contain active nests.



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# Figure 1. Site location

Project: A6105

Project Title: Land at Bryn y Groes  
Hall, Gresford. Ecological Survey and  
Advice

Title: Site Location Plan

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Project Title: Bryn-y-Hall, Gresford, Denbighshire  
Survey and Advice

Title: Phase 1 plan

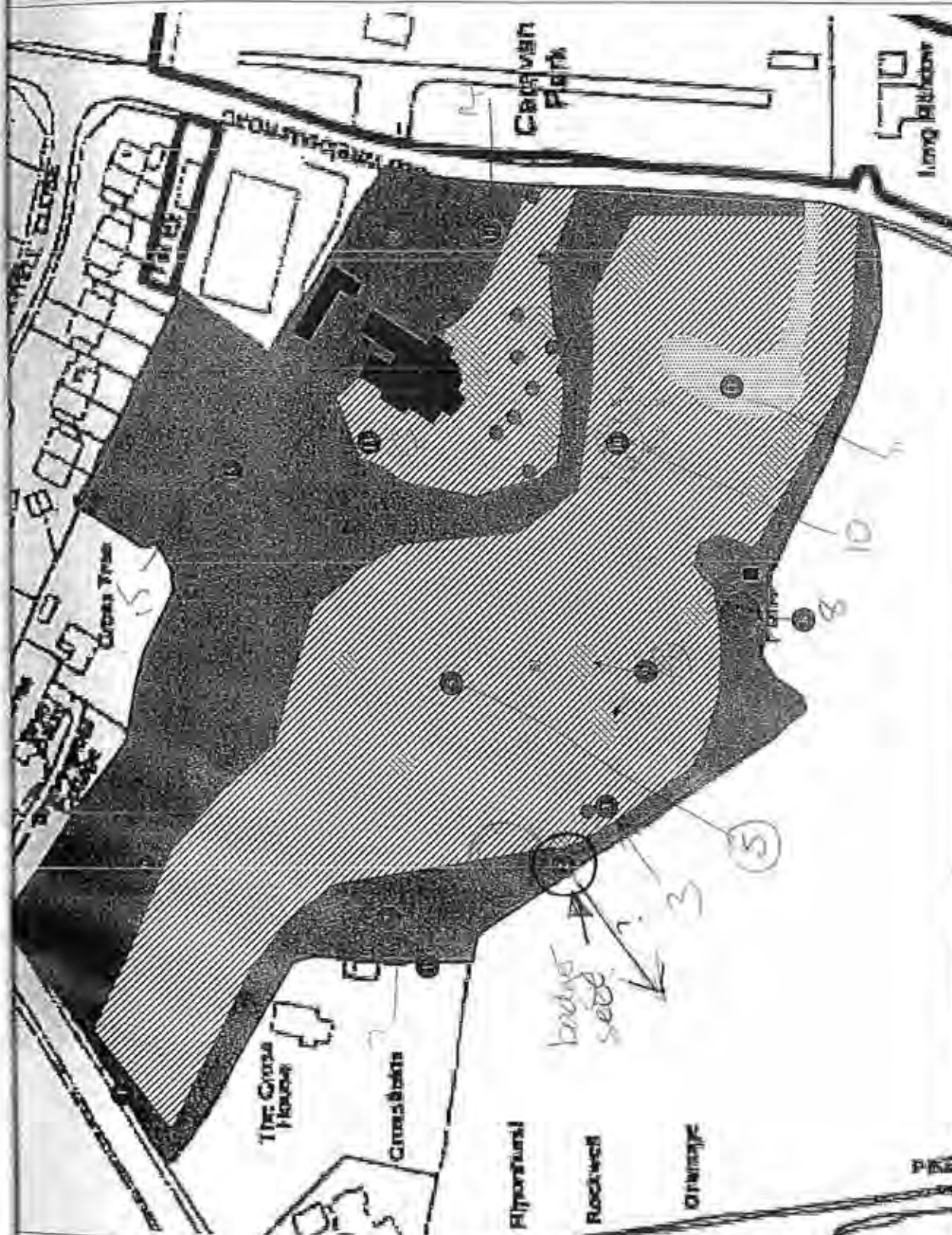
Project No.: A6105

|      |                                 |
|------|---------------------------------|
| Key: | Semi-improved natural grassland |
|      | Broadleaf woodland              |
|      | Building                        |
|      | Dense scrub                     |
|      | Japanese knotweed               |
|      | Pond                            |
|      | Mature trees                    |
|      | Sheltered areas                 |
|      | Target Note                     |
|      | Site Boundary                   |

The material in this plan is based upon a plan supplied by the client

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| Target Note No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1               | Immature trees on boundary with adjacent field, sycamore, ash, hawthorn                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2               | Badger sett. One hole only but active with bedding, latrines, hairs, etc. Well used badger path to the next field (off-site)                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3               | Mature sycamore with ivy and cracks etc. Some bat potential                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 4               | Mature trees on boundary of site, sycamore, larch, ash, holly, elder, hawthorn and lime. Shady at base with lords and ladies and ivy on the trees and ground. Badger paths throughout.                                                                                                                                                                                                                                                                                                                                          |
| 5               | The majority of the site supports tall ruderal vegetation with common nettle, rosebay willowherb, bramble, bindweed, cock's-foot, false oat-grass, cleavers, creeping thistle, meadow buttercup and scattered scrub including elder, horse chestnut, sycamore and silver birch. There is also male fern, Russian comfrey, ragwort, poppy, spear thistle, burdock, clover spp, common bent, silverweed, fool's parsley and smooth meadow grass.                                                                                  |
| 6               | Mature lime trees line the former driveway forming woodland with holly, nettle, curled dock, lords and ladies, bramble and herb robert.                                                                                                                                                                                                                                                                                                                                                                                         |
| 7               | Small area of woodland with beech, elder and lime and a shrub layer of hawthorn and elder with ivy and bramble. Lords and ladies is on the ground. There are well used badger paths throughout this area.                                                                                                                                                                                                                                                                                                                       |
| 8               | Pond, dry at the time of the survey after period of relatively high rainfall. The pond is shaded by mature oak, hawthorn and elder. It does not appear to hold water and there is no aquatic/emergent vegetation, only nettles and ground ivy. It does not appear to have any potential for great crested newts breeding, but the terrestrial habitat is very good.                                                                                                                                                             |
| 9               | Immature sycamore, ash and elder.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 10              | Scattered scrub including ash, sycamore and willows.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11              | Track into site and disturbed area with bare ground, greater plantain, Yorkshire fog, colt's-foot, creeping thistle, clover spp., common bent, meadow buttercup. An earth mover in this area has disturbed Japanese knotweed. There are bricks stored in this area, but no newts were found.                                                                                                                                                                                                                                    |
| 12              | The house itself, Bryn y Groes, is in a very poor state. It is a brick building with a slate roof and chimneys. Most of the upstairs windows are missing or open. The floors and ceilings are missing downstairs. The house is unsafe to enter. Sections of the roof remain intact leading to high potential for bats. The loft spaces appear ideal for brown long-eared bats, but pipstrelles may also be present. Much of the property is covered in dense ivy. The adjacent land is ideal for foraging.                      |
| 13              | Portacabins ruined and full of rubbish.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 14              | The open section of the site in the north east is composed of a mixture of mugwort, bindweed, bramble, nettle, ribwort plantain, comfrey, burdock, dove's-foot crane's-bill, black medick, perforate St. John's-wort, red clover, greater plantain, couch grass, white clover, creeping bent, cock's-foot, butterbur, willowherbs, hogweed and viper's bugloss. There were a lot of grasshoppers and hoverflies.                                                                                                                |
| 15              | Wooded area containing a mixture of self set and non-native planted species. Many passerine birds. This area includes Norway maple, copper beech, yew, ash, sycamore, wych elm, pedunculate oak, holly, elder, hawthorn rhododendron, horse chestnut, large-leaved lime, laburnum and English elm. Ground flora is dominated by ivy with bramble, herb Robert, nettle, foxglove, lords and ladies, wood avens, black bryony, white campion, creeping buttercup, Traveller's joy, pendulous sedge, curled dock and gooseberries. |

**Bat Emergence Survey, 31<sup>st</sup> August 2004**

| Time  | Species and number                 | Point of Emergence                                  | Direction of Flight | Details                                                                                           |
|-------|------------------------------------|-----------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------|
| 20.16 | 1 <i>Pipistrellus</i> spp          |                                                     | E                   | Flew over head away from front of hall.                                                           |
| 20.16 | 1 small bat                        |                                                     | S                   | Foraging in circle near trees behind the hall.                                                    |
| 20.19 | 1 <i>Pipistrellus</i> spp          |                                                     |                     | Feeding behind hall.                                                                              |
| 20.19 | 1 <i>Pipistrellus</i> spp          |                                                     | W                   | Flying toward front of hall.                                                                      |
| 20.20 | 1 <i>Pipistrellus</i> spp          | From ivy below chimney on back of hall, right side. | S                   | Flew away from back of hall.                                                                      |
| 20.20 | 1 <i>Pipistrellus</i> spp          |                                                     |                     | Feeding at back of hall.                                                                          |
| 20.20 | 1 bat                              |                                                     | S                   | Flying from rear left section of hall, across back and returned.                                  |
| 20.20 | 1 bat                              |                                                     | E                   | Flying from back of hall to front.                                                                |
| 20.20 | <i>Pipistrellus</i> spp            |                                                     |                     | Feeding in front of the hall until 20.26.                                                         |
| 20.25 | 1 bat                              |                                                     | W                   | Flying in front of barn/stable.                                                                   |
| 20.30 | 1 bat                              |                                                     | S                   | Flying across back of hall.                                                                       |
| 20.30 | 1 <i>Pipistrellus</i> spp          |                                                     |                     | Feeding in trees to side of hall.                                                                 |
| 20.31 | 1 bat                              |                                                     | E                   | Flying over or into roof from back of hall.                                                       |
| 20.32 | 2 <i>Pipistrellus</i> spp          |                                                     |                     | Feeding in front of hall.                                                                         |
| 20.32 | 1 bat                              |                                                     | S                   | Flying across back of hall.                                                                       |
| 20.33 | 1 bat                              |                                                     |                     | Flying overhead behind hall, no sound on detector.                                                |
| 20.33 | 1 <i>Pipistrellus</i> spp          |                                                     |                     | Feeding next to trees behind hall.                                                                |
| 20.33 | 1 bat                              |                                                     | S                   | Flying across back of hall.                                                                       |
| 20.34 | 1 bat                              |                                                     | S                   | Foraging in circle at back of hall.                                                               |
| 20.34 | 1 <i>Pipistrellus</i> spp          |                                                     |                     | Feeding in front of hall.                                                                         |
| 20.35 | 1 bat                              | Beneath edge of roof on south western side of hall. | S                   | Emerging - not heard on detector.                                                                 |
| 20.35 | 1 bat                              |                                                     | N                   | Foraging in circle at back of hall.                                                               |
| 20.36 | 1 bat                              |                                                     | S                   | Foraging in circle at back of hall until 20.46.                                                   |
| 20.36 | 2 <i>Pipistrellus</i> spp          | Ivy on back of hall.                                |                     | Flying away from hall.                                                                            |
| 20.36 | 1 <i>Pipistrellus pipistrellus</i> |                                                     |                     | Feeding in front of hall until 20.40.                                                             |
| 20.37 | 1 bat                              |                                                     |                     | Feeding behind hall.                                                                              |
| 20.38 | 1 <i>Pipistrellus</i> spp          | Ivy on back of hall.                                |                     | Flying away from hall.                                                                            |
| 20.39 | 2 <i>Pipistrellus</i> spp          |                                                     |                     | Flying away from hall.                                                                            |
| 20.40 | 2 <i>Pipistrellus</i> spp          | Beneath gable end on southern side of hall.         | S                   | Flying away from hall.                                                                            |
| 20.40 | 2 <i>Pipistrellus</i> spp          |                                                     |                     | Feeding in front of hall, one overhead and one using the inside of the hall via top right window. |
| 20.41 | 2 <i>Pipistrellus</i> spp          | From ivy below                                      |                     | Flying away from hall.                                                                            |

| Time  | Species and number        | Point of Emergence                                  | Direction of Flight | Details                                         |
|-------|---------------------------|-----------------------------------------------------|---------------------|-------------------------------------------------|
|       |                           | pointed roof section on back of hall at right side. |                     |                                                 |
| 20.42 | 1 <i>Pipistrellus</i> spp | Below edge of roof on southern side of hall.        | S                   | Flying away from hall.                          |
| 20.43 | 1 <i>Pipistrellus</i> spp | From ivy on rear of hall.                           |                     | Flying away from hall.                          |
| 20.44 | 2 <i>Pipistrellus</i> spp | From ivy on rear of hall.                           |                     | Flying away from hall .                         |
| 20.45 | 2 <i>Pipistrellus</i> spp | From ivy on rear of hall.                           |                     | Flying away from hall.                          |
| 20.46 | 1 <i>Pipistrellus</i> spp | From ivy on rear of hall.                           |                     | Flying away from hall.                          |
| 20.47 | 1 bat                     | From gable end on south side of hall.               | S                   | Emerging and flying away from hall – not heard. |
| 20.53 | 1 <i>Pipistrellus</i> spp |                                                     | W                   | Flying toward front of house.                   |
| 20.54 | 1 bat                     |                                                     | S                   | Flying across back of house.                    |
| 20.56 | 1 <i>Pipistrellus</i> spp | From ivy on rear of hall.                           |                     | Flying away from hall.                          |

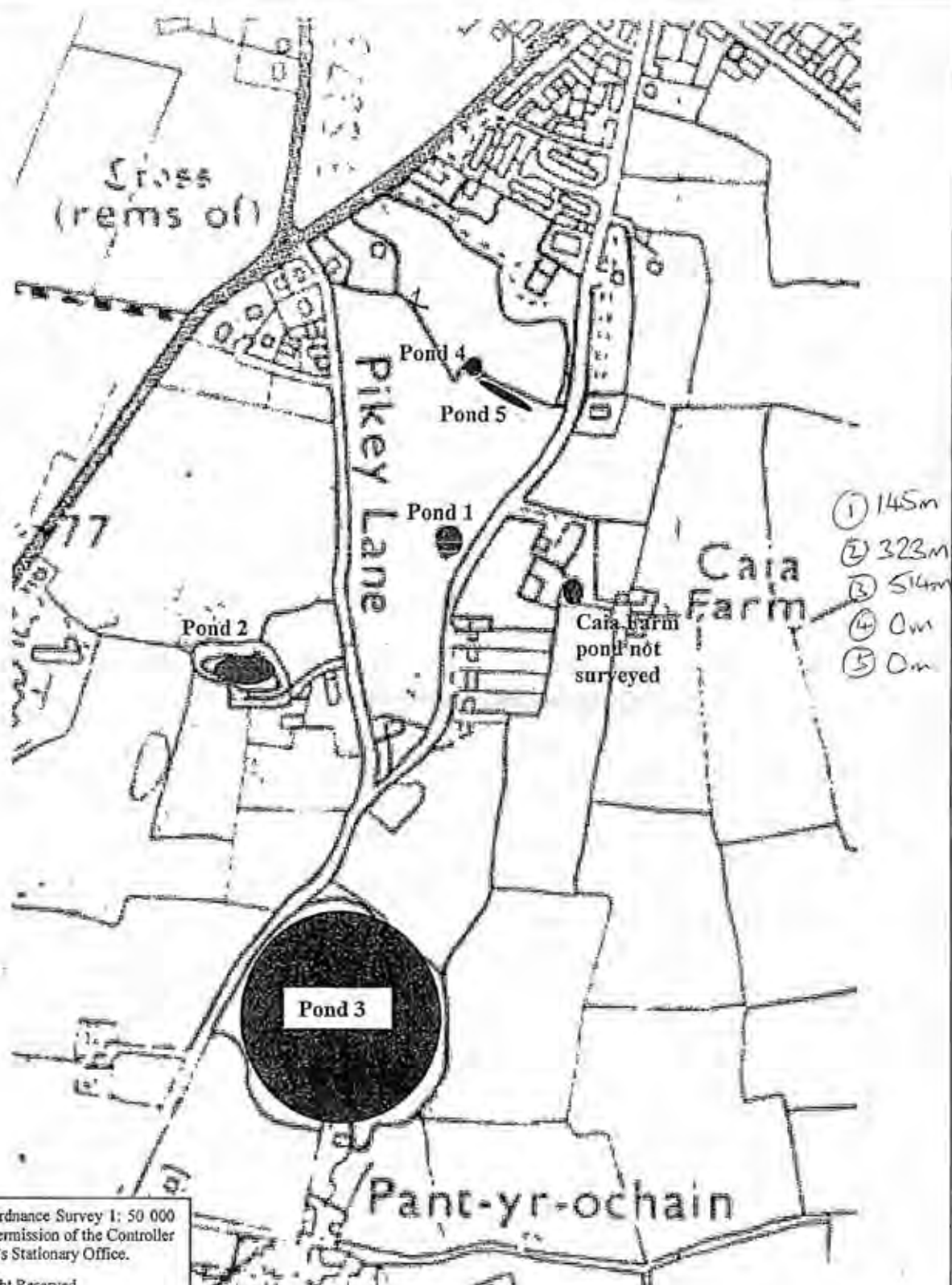


**Figure 4. Pond locations**

Project: A6105

Project Title: Land at Bryn y Groes Hall, Gresford. Ecological Survey and Advice

Title: Pond Location Plan

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## LAND AT BRYN Y GROES

### POND DESCRIPTIONS

#### Pond 1

Approximately 20m x 15m with a sandy, silty substrate. The water is quite clear, although there is a lot of leaf litter on the bottom and some dead wood in the pond. The banks are approximately 45° and covered in common nettle, docks, cow parsley and bramble, with some goat willow and pedunculate oak resulting in approximately 70% shading of the pond. There is a small amount of hard rush and water forget-me-not in the pond with a starwort species.

Great crested newt eggs were recorded in this pond, and one female was seen laying eggs during the torch survey on 23<sup>rd</sup> May 2005. A male and female great crested newt were also recorded in this pond during torch surveys and bottle trapping. No smooth newts were recorded on this pond but a moorhen and a rat were both seen during surveys.

#### Pond 2

Approximately 70m x 40m with a silty substrate and banks varying from 45-70°. The water is mostly clear but there is a very dense band of water crowfoot around most of the perimeter of the pond, making it difficult to see anything during torch surveys. The pond is surrounded by dense scrub and some trees on both the western and eastern banks but only approximately 10% of the pond is shaded. Bankside vegetation includes rhododendron, daffodils, bluebells, lesser celandine, common nettles, forget-me-not, arum lily, wild garlic, common comfrey and some bramble. There is yellow flag iris and water mint around the edges of the pond and abundant water crowfoot with some common duckweed.

No eggs of any newts were recorded in the pond, but one female great crested newt was recorded during bottle trapping and one great crested newt, probably female, during torching. One male smooth newt was also caught during bottle trapping.

Other species recorded on this pond include Canada geese, breeding moorhen, very abundant frog tadpoles, diving beetles and very small fish,

#### Pond 3

A very large pond, approximately 200m x 200m used for fishing, sailing and water skiing. There is a lot of rubble and litter in the pond and the substrate is a mix of gravel and hard mud. There is no emergent or aquatic vegetation and very large fish were recorded in the pond, together with a variety of waterfowl. The banks of the pond are shallow, approximately 10° and surrounding habitat is grazing land and arable fields with rosebay willowherb, common nettles and broad-leave dock present. Water clarity is extremely poor and there is an oily film on the water which is very discoloured from the high levels of waterfowl droppings.

This pond was only surveyed on the first occasion due to the high levels of recreational boating and the poor quality of the pond for great crested newts. Torching was not possible due to poor water clarity and bottle trapping was not possible due to traps being swamped by boaters, water-skiers. Only one fish was caught in the bottle traps during the first survey.

#### Pond 4

A small pond, approximately 10m x 10m, quite shallow with maximum water depth less than 0.5m. The water is clear but there is abundant leaf litter and lots of dead branches in the

muddy substrate. The pond is surrounded by trees on three sides resulting in 80% shading, there is no aquatic vegetation and very little marginal vegetation, although there is some willowherb and common nettle. The banks are approximately 30° and bankside vegetation includes common nettles, cleavers, green alkanet, hogweed, creeping thistle and broadleaved dock.

No newts were recorded in this pond at all. A number of mallards were recorded on the pond on the visits and frog tadpoles and one frog were caught in the bottle traps.

#### Pond 5

This is actually a ditch running adjacent to the site, approximately 100m x 2m wide with a mud substrate. It is heavily shaded by trees and contained shallow, very murky water and lots of leaf litter. The banks were steep at approximately 45°. There was floating sweet grass in places and marginal vegetation included broad-leaved dock, common nettle, hedge bindweed, green alkanet and a buttercup species. The southern bank was bordered by an arable ploughed field and was covered in nettles and cleavers, while the northern bank contained an overgrown hedge with hawthorn and horse chestnut.

No newts were recorded in this ditch, only one frog. The ditch had dried out by the last two surveys in May.

## **Annex 2 – Ecological Compliance Audit**

| No | Performance Indicator                                                                                                                                                                                                                                                                                                                                                                              | Evidence Required                                                                                                                                                    | Pass<br>(Yes/No) |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 1  | European Protected Species Licence (EPSL) available for inspection by any police constable, employee of the Welsh Assembly Government or employee of the Natural Resources Wales (NRW) or authorised persons on demand.                                                                                                                                                                            | Licence is available for inspection on site.                                                                                                                         |                  |
| 3  | No agent of the licensee shall act under licence unless they are in possession of a letter signed by the licensee appointing them by name as the duly accredited agent of the licensee for the purposes of this EPSL, and shall carry with them the said letter and a copy of this licence and shall produce them to any police constable or employee of NRW or other authorised person on demand. | All relevant accredited agents have copies of licence holder's letter of authorization. Licence holder's letter is available for inspection.                         |                  |
| 4  | A suitably experienced licensed ecologist will be appointed and retained during the life time of this licence to provide on-site advice.                                                                                                                                                                                                                                                           | Letter, contract or other document outlining the appointment of an Ecologist Log (end of project) shows that Ecologist has been retained during lifetime of licence. |                  |

| No | Performance Indicator                                                                                                                                                                                                                                                                               | Evidence Required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Pass (Yes/No) |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 5  | Prior to the start of any works under PWMS and EPSL on site, all site workers will be inducted by the Project Ecologist. This induction will cover the legal status of the species, the method of working, and action to be taken if protected species are encountered.                             | Copy of documents from ecological induction, showing content of induction<br>List of induction attendees and signatures confirming all attendees have understood the induction and agree to abide by EcOW advice                                                                                                                                                                                                                                                                                                   |               |
| 7  | Implementation of mitigation and compensation measures including:<br>(i) Land transfer;<br>(ii) Financial payments identified under Section C.1 of the Method Statement;<br>(iii) Habitat creation /enhancement;<br>(iv) Submission of Management Plan<br>(v) Implementation of the management plan | Log of implementation of mitigation and compensation measures is available for inspection.<br><br>Evidence financial resource allocation is provided along with signed agreement with third party organisations associated with implementing management tasks.<br><br>Log shows that mitigation and compensation measures have been implemented.<br><br>Field observation shows that physical evidence of mitigation and compensation measures is available e.g. receptor site habitat features have been created. |               |

| No | Performance Indicator                                                                                                                                                                                                                                                                                                                                                                                                                           | Evidence Required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Pass<br>(Yes/No) |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 8  | <p>Condition and ecological functionality of the compensation/receptor site:</p> <ul style="list-style-type: none"> <li>- Has the compensation/receptor site been subject to appropriate management during construction?</li> </ul>                                                                                                                                                                                                             | <p>Log of management activities is available for inspection.</p> <p>Log shows that appropriate management activities have been implemented</p> <p>Field observation shows that physical evidence of management activities is available e.g. presence of newly created ponds and hibernacula</p>                                                                                                                                                                                                                                                                                                                                                                                                   |                  |
| 9  | <p>Implementation of long term proposals in respect of</p> <ul style="list-style-type: none"> <li>(i) Long term site security (e.g. land transfer, local land charge, Wildlife and Countryside Act Section 39 Agreement;</li> <li>(ii) Long term monitoring</li> <li>(iii) Long term site management</li> <li>(iv) Long term wardening</li> <li>(v) Resourcing of (i) – (iv)</li> </ul> <p>NB Not all schemes will require all of the above</p> | <p>(i) Long Term Site Security</p> <p>Has land transfer or other legal interest proposal associated with the receptor site been implemented?</p> <p>Has the mitigation/compensation site been listed as a local land charge?</p> <p>Have proposed legal agreements and contracts been completed?</p> <p>(ii) Long Term Monitoring</p> <p>Has post project long term monitoring been actioned as per the Method Statement or as conditioned?</p> <p>Have results been passed to regulators and the local records centre?</p> <p>(iii) Site Management Works</p> <p>Have site management works been undertaken in accordance with the provisions of an approved or conditioned management plan?</p> |                  |

|    |                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |  |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|    |                                                                                                                                                                                                                            | <p>Are site management works maintaining the ecological functionality of the mitigation/compensation site?</p> <p>(v)Resourcing<br/>Has submitted financial resourcing, to facilitate mitigation/compensation, monitoring, site management and/or wardening, been carried as stated in the Method Statement?</p> |  |
| 10 | Implementation of surveillance or monitoring of schemes, pre, during and post development.                                                                                                                                 | <p>Log of surveillance and monitoring activities is available for inspection.</p> <p>Log shows that surveillance and monitoring have been implemented pre, during and post development.</p>                                                                                                                      |  |
| 11 | During mitigation works under EPSL, different species of newt and other amphibians captured on site are to be held and transported in separate containers.                                                                 | <p>Log of activities, including use of containers, is available for inspection.</p> <p>Log shows that amphibians have been transported within separate containers</p> <p>Containers are available for inspection</p>                                                                                             |  |
| 13 | Bottle traps used during GCN monitoring of ponds are to be emptied by 10am the morning after setting and any bottle traps used during the day must be set so as to avoid causing any harm to any protected species caught. | <p>Log of activities, including use of bottle traps, is available for inspection.</p> <p>Log shows that bottle traps have been emptied by 1000hrs the day after setting and that bottle traps used during the day have been set so as to avoid causing any harm to any protected species caught</p>              |  |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Field observation shows that bottle traps are not present in ponds after 1000hrs</p> <p>Field observation shows that bottle traps used during the day have been set so as to avoid causing any harm to any protected species caught</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| 14 | <p>Installation and design of amphibian fencing:</p> <p>Exclusion/ drift fencing will be installed to the specifications provided in the CCW guidance sheets/ EN (2001), as detailed in the method statement;</p> <p>Exclusion/ drift fencing will be installed on the inside of security fencing;<br/>The fencing layout will not contain gaps through which newts may pass;</p> <p>Fencing membrane will be installed without noticeable creases or folds; and<br/>The fencing will be installed so there is a minimum 1 m access strip left for maintenance on all sides;</p> <p>Any joins in the membrane will be 'curl-joined' and well secured to a post with pads and nails. This jointing method will continue underground as well as above</p> | <p>Log and field observation show that exclusion/ drift fencing have been installed to the specifications provided in the CCW guidance sheets/ EN (2001), as detailed in the method statement;</p> <p>Log and field observation show that exclusion/ drift fencing have been installed on the inside of security fencing;</p> <p>Log and field observation show that the fencing layout does not contain gaps through which newts may pass;</p> <p>Log and field observation show that the fencing membrane has been installed without noticeable creases or folds;</p> <p>Log and field observation show that the fencing has been installed so there is a minimum 1 m access strip left for maintenance on all sides;</p> <p>Log and field observation show that joins in the membrane have been 'curl-joined' and well secured to a post with pads and nails. The</p> |  |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | jointing method continues underground as well as above                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| 14 | <p>Pitfall traps to be installed using CCW/Natural England Guidance. Trapping only to be undertaken on nights when the dusk air temperature are expected to exceed 5°C and to remain sealed when the dusk air temperature is below 5°C. Traps to contain moss or hay to provide shelter for caught animals.</p> <p>Traps left set overnight must be emptied by 10 a.m. the following morning. Any pitfall traps left open during the day must incorporate measures to avoid distressing any protected species caught. Traps must be emptied at least once every 24 hours</p> | <p>Log of activities, including use of pitfall traps, is available for inspection.</p> <p>Log and field observation show that pitfall traps are of correct size (as per CCW guidance notes: rectangular with vertical sides and measure 350 by 250 mm). The traps are 240 mm deep;</p> <p>Log and field observation show that pitfall traps are at 7 m spacing around exclusion and drift fencing and 10 m on outside of exclusion fencing;</p> <p>Log and field observation show that pitfall traps are installed tightly against the fence membrane;</p> <p>Log and field observation show that all traps have a secure snap-on lid;</p> <p>Log and field observation show that each pitfall trap contains a suitable substrate for shelter (e.g. grass or leaves) and a floating raft;</p> <p>Log and field observation show that pitfall traps and refugia have been installed in appropriate locations;</p> <p>Log and field observation show that pitfall traps do not protrude above ground level, no voids are present between trap and soil, traps are well-drained (they contain maintained drainage holes) and include a small mammal ladder;</p> |  |

|    |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|    |                                                                                                                                                                                                                                                 | <p>Log shows that:</p> <p>Pitfall traps were only used on nights when the dusk air temperature was expected to exceed 5°C and remained sealed when the dusk air temperature was below 5°C.</p> <p>Pitfall traps left set overnight were emptied by 10 a.m. the following morning.</p> <p>Any pitfall traps left open during the day incorporated measures to avoid distressing any protected species caught.</p> <p>Traps were emptied at least once every 24 hours.</p> |  |
| 15 | All newts to be released within 1 hour of removal from traps.                                                                                                                                                                                   | <p>Log of activities is available for inspection.</p> <p>Log shows that all newts have been released within 1 hour.</p>                                                                                                                                                                                                                                                                                                                                                  |  |
| 16 | A daily log of all newts trapped or found to be kept and made available to WAG/NRW at 48 hours notice                                                                                                                                           | A daily log of all newts trapped or found is available for inspection within 48 hours.                                                                                                                                                                                                                                                                                                                                                                                   |  |
| 17 | <p>Amphibian fencing to be inspected every 24 hours and any repairs completed within 12 hours. Fence specification and condition shall be as NE/CCW Guidelines.</p> <p>A fence inspection log must be kept and made available to WAG/NRW at</p> | <p>A suitable log has been maintained of all of inspections and all required repairs Log of activities, including inspections and repairs of fencing, is available for inspection within 48 hours.</p> <p>Log shows that amphibian fencing has been inspected every 24 hours and any repairs completed within 12 hours</p>                                                                                                                                               |  |

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|    | <p>48 hours notice.</p> <p>Fence inspection and maintenance will be required throughout the duration of construction works.</p>     | <p>Log and field observation show that 99% or more of the length of the exclusion fencing has been maintained in a satisfactory condition throughout the translocation and construction periods;</p> <p>Log shows that the fencing has been checked by a suitably qualified/ licensed ecologist daily during translocation;</p> <p>Log shows that the fencing will be checked daily during the construction period by site personnel;</p> <p>Log and field observation show that all necessary repairs have been completed as per Method Statement/Guidance</p> <p>Log and field observation show that The fencing has been kept clear of vegetation or other materials that may enable newts to climb over the fence.</p> |  |
| 18 | <p>Works within amphibian habitats will not commence until working areas are confirmed to be clear by the amphibian contractor.</p> | <p>Log of activities, including clearance activities, is available for inspection.</p> <p>Log shows that works within amphibian habitats did not commence until working areas were confirmed to be clear by the amphibian contractor.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| 19 | <p>Design and installation of hibernacula</p>                                                                                       | <p>Log and field observation show that the dimensions of the created hibernacula will not be below 2 m length x 1 m width x 1m height.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |

|    |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
|----|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|    |                                                 | <p>Log and field observation show that hibernacula incorporate a mixture of hardcore, brick rubble, logs, sleepers etc, and loose topsoil has been piled into a mound which has been covered with a topsoil cap and, ideally, a turf covering. Log and field observation show that the lower margins of the mound has been exposed to facilitate access. The design can follow that provided in Langton, et al., (2001).</p>                                                                                                                                                                                                                                                                                                                                   |  |
| 20 | Design and creation of Great Crested Newt Ponds | <p>Log and field observation show that the new ponds have been constructed in relatively species-poor grassland;</p> <p>Log and field observation show that the surface area of the new ponds is approximately between 100 and 150m<sup>2</sup>;</p> <p>Log and field observation show that the ponds are between 1 m and 2 m deep;</p> <p>Log and field observation show that the ponds have been planted with native aquatic plants of local provenance or In some circumstances, the log will explain why for bio-security reasons, the ponds have not been planted ;</p> <p>Log shows that the pond water was not contaminated during the construction phase;</p> <p>Log and field observation show that egg-laying strips provided in the first year.</p> |  |

## Figures





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|               |                                                                |                                                                                                                        |                  |            |             |             |          |
|---------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------|------------|-------------|-------------|----------|
| CLIENT        | SG Estates                                                     | DRG No.                                                                                                                | LE12157-Figure 2 | SCALE      | 1:2000 @ A4 | DATE        | 27/03/15 |
| PROJECT       | Proposed Development at<br>Bryn-y-Groes, Gresford, North Wales | DRAWN BY                                                                                                               | SJB              | CHECKED BY | EJL         | APPROVED BY | EJL      |
| DRAWING TITLE | Receptor Creation Measures                                     |  <span>your earth our world</span> |                  |            |             |             |          |

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