

Report Title	Proposed Housing Development, Land to the Rear of the Nags Head, Chester Road, Lavister, Wrexham - Great Crested Newt Reasonable Avoidance Measures Method Statement
Client	Hilbre Estates Ltd
Date	September 2013

this report was produced by



Unit 23, The Malthouse Business Centre,
Regent Street, Llangollen, Denbighshire, LL20 8HS
01978 860889

Marches Ecology is the trading name of Marches Ecology LLP, Partnership No. 0C362423, Registered in England and Wales.
Registered address: Unit 23, The Malthouse Business Centre, Regent Street, Llangollen, Denbighshire, LL20 8HS

This report has been prepared by Marches Ecology with all reasonable skill, care and diligence within the terms of the Contract with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

Report Title	Proposed Housing Development, Land to the Rear of the Nags Head, Chester Road, Lavister, Wrexham - Great Crested Newt Reasonable Avoidance Measures Method Statement
Client	Hilbre Estates Ltd
Marches Ecology Ref	C235/MS
Date issued	13 th September 2013
Author	Max Ellson
Checked by	Tom Knight

CONTENTS

1	INTRODUCTION.....	4
1.1	PROJECT BACKGROUND	4
1.2	PROPOSED DEVELOPMENT	5
1.3	LEGISLATION AND POLICY	5
1.4	STRUCTURE OF THIS REPORT.....	6
2	METHODOLOGY.....	7
2.1	WALKOVER SURVEY	7
2.2	POND SCOPING EXERCISE	7
2.3	CONTEXTUAL INFORMATION	8
3	RESULTS	9
3.1	SITE DESCRIPTION	9
3.2	STATUS OF GREAT CRESTED NEWTS IN THE AREA	12
3.3	SUMMARY OF RESULTS AND IMPLICATIONS.....	15
4	METHOD STATEMENT	17
4.1	IDENTIFICATION	17
4.2	PREPARATORY	18
4.3	WORKING PROTOCOL	19
4.4	SIGNATORIES	22
5	REFERENCES.....	23

Figure 1a – Waterbodies Located within 500 m of the Proposed Development Site

Figure 1b – Target Notes

1 INTRODUCTION

1.1 Project Background

1.1.1 Marches Ecology was commissioned by Hilbre Estates Ltd to undertake a walkover survey and associated pond scoping exercise in connection with the site of a proposed housing development at land to the rear of the Nags Head, Chester Road, Lavister, Wrexham (OS Grid Ref. SJ 373 582). The walkover survey/ pond scoping exercise were required in order to assess the potential value of the habitat present for Great Crested Newts (*Triturus cristatus*) and subsequently to produce a Method Statement detailing Reasonable Avoidance Measures (RAMs) to be implemented prior to and during the construction period.

1.1.2 This RAMs Method Statement has been prepared in support of a planning application (Ref: P/2013/0493). A letter (Ref: NT/2013/114804/01) was initially provided by Gareth Thomas (Planning Liaison Officer, Natural Resources Wales – NRW) in response to the submitted application. With regards protected species this letter stated that *'the proposal has the potential to cause disturbance to great crested newts and/or loss or damage to resting places'*. The letter cited *'records of great crested newts within 170m of the application site....[and]....presence of a pond within 110m of the site of the proposed development'*. It concluded that *'If the application site supports a European Protected Species, i.e. the great crested newt, development may only proceed, under a licence issued by Natural Resources Wales'*. It also stated that *'the proposal is not likely be detrimental to the maintenance of the favourable conservation status of the great crested newt population provided any consent is subject to the following planning conditions and/or obligations':*

- a. The submission and implementation of amphibian avoidance, mitigation and compensation schemes to the satisfaction of the local planning authority;*
- b. The submission and implementation of a biosecurity risk assessment to the satisfaction of the local planning authority;*
- c. The submission and implementation of an ecological compliance audit scheme to the satisfaction of the local planning authority;*
- d. The submission and implementation of a long term site security scheme to the satisfaction of the local planning authority; and*
- e. The submission and implementation of a long term site management, wardening and monitoring scheme to the satisfaction of the local planning authority'.*

In respect of recommendation (d), it was suggested that this is *'subject to implementation prior to the construction of the proposed development, unless agreed in writing with the local planning authority in consultation with NRW'*.

1.1.3 Further to the above, consultation was sought with Matthew Ellis (Senior Species Officer, NRW). During a 'phone conversation of 05th September 2013 with Tom Knight (Marches Ecology) it was agreed that the minimum Matthew would accept would be a) and b) above (this reduction in the requirements is understood to be principally based on there being no Great Crested Newt records within 500 m of the proposed development site, contrary to the original NRW letter – refer to *paragraph 3.2.1* below). As such this document has been prepared to satisfy a). It provides the results of a walkover survey and assesses the habitat both within the proposed development site and immediately surrounding area for its potential value to Great Crested Newts. It also reviews any existing readily available data for the

species in this area, and outlines the results of a pond scoping exercise. It subsequently details a proposed non-licensed RAMs scheme, some of the details of which were further discussed during a 'phone conversation between Matthew Ellis and Max Ellison on 11th September 2013. The RAMs will ensure as far as is reasonably possible that impacts on Great Crested Newts are minimised/ avoided.

- 1.1.4 A separate Biosecurity Risk Assessment (Marches Ecology 2013) has also been prepared with regards b) above.

1.2 Proposed Development

- 1.2.1 The proposed development is illustrated on a McCormick Architecture plan entitled '*Land to the Rear of the Nags Head, Chester Road, Lavister – Planning Drawing, Proposed Site Plan*', Dwg. no. A(200)01/C, dated 10/07/13. Briefly, it concerns the construction of seven houses in a single field to the rear of the Nags Head public house. Associated infrastructure will include a new pub car park (to be partly located within an existing car park and partly within a small garden), and a new access way/ footpath (to be partly located within an existing car park). The proposed development would include driveways to the seven houses, soft landscaping/ planting in front gardens, and the provision of rear gardens to all properties. A buffer strip will be created adjacent to Lavister Brook which will be allowed to regenerate naturally and in addition there will be no built development within 7 m of the brook. No existing boundary hedges will be directly impacted – however a short length of internal hedge will be lost. The construction period is estimated to be twelve months.

1.3 Legislation and Policy

- 1.3.1 This sub-section provides a brief summary of key relevant legislation. It should not be considered a comprehensive review and is not meant to be so. It is provided here for information only and is not intended to replace specialised legal advice. It does not replace the text of the legislation, but summarises the salient points.
- 1.3.2 Great Crested Newts are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. The 1981 Act was amended by the *Countryside and Rights of Way Act 2000* (the CROW Act) which further extends the protection. It is also listed on *Annexes II* and *IV* of the European Union Directive on Natural Habitats and Wild Fauna and Flora (*Council Directive 92/43/EEC*), which is implemented in the UK by *The Conservation of Habitats and Species Regulations 2010* (as amended). It is included on *Schedule 2* of the Habitats Regulations which gives it full protection under *Regulation 40(1)*. The Great Crested Newt is therefore a so-called European Protected Species. The legislation applies to all life stages of the Great Crested Newt, including eggs, larvae, juveniles and adults.
- 1.3.3 Under the above legislation it is an offence to intentionally or recklessly:
- kill, injure or take an individual of such a species;
 - possess any part of such species either alive or dead;
 - damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;

- disturb such a species whilst using any place of shelter or protection; or
- sell or attempt to sell any such species.

1.3.4 The Great Crested Newt is a priority species in the UK Biodiversity Action Plan (UK Biodiversity Steering Group 1995, 1998a & b), which includes objectives and targets to protect and restore newt habitats and to create new sites through habitat management and re-creation. *Section 42* of the *Natural Environment and Rural Communities Act 2006 (NERC Act 2006)* provides a list of habitats and species of principal importance for the conservation of biological diversity in Wales. The Great Crested Newt is included on this list. There is also a SAP for Great Crested Newts in Wrexham (Wrexham County Borough 2003). The Wrexham BAP is a supplementary planning guidance document.

1.4 Structure of this Report

1.4.1 The remainder of this report is structured as follows:

Section 2 describes the survey methodology;
Section 3 describes the results;
Section 4 presents the method statement; and
Section 5 gives references.

2 METHODOLOGY

2.1 Walkover Survey

- 2.1.1 The walkover survey was carried out on 09th September 2013 by Max Ellson of Marches Ecology. The weather was largely warm and sunny, with occasional light rain during the afternoon. The survey focussed on land within the proposed development footprint and immediately adjacent land where access was provided. The results of the walkover survey are further described below.
- 2.1.2 There are no ponds within the proposed development site/ immediately adjacent land. The quality of terrestrial habitat for Great Crested Newts was therefore assessed. The location of target notes is mostly presented on *Figure 1b* (however *Target Notes 8* and *9* are shown on *Figure 1a*) and these features of interest are further described in *Section 3* below.

2.2 Pond Scoping Exercise

- 2.2.1 The pond scoping exercise involved a two-stage process; 1) a detailed desk study to locate ponds on internet-based aerial photography and mapping¹ within 500 m of the proposed development site, and 2) a subsequent walkover survey to field-truth and scope any ponds for their potential to support Great Crested Newts. Use was made of public-rights-of-way (PROWs). The walkover survey also aimed to locate any ponds that were not identified during the desk study; it was completed by Max Ellson of Marches Ecology on 09th September 2013. Ponds located within 500 m of the proposed development site are shown on *Figure 1a*; pond numbers are provided in *Table 1*, *Section 3.2*.
- 2.2.2 The assessment of aquatic habitat was based on the Habitat Suitability Index (Oldham, *et al.* 2000) that identifies several criteria that influence the suitability of ponds for Great Crested Newts. These criteria are as follows:
- Geographic location;
 - Pond area (Dimensions);
 - Pond permanence (Will it dry out?);
 - Water quality (Clarity, eutrophic status and substrate);
 - Pond shading (Percentage of the pond that is shaded);
 - Presence of wildfowl and/ or fish;
 - Pond density/ isolation (Is the pond isolated or near other water bodies?);
 - Surrounding terrestrial habitat ("newt friendly habitat");
 - Macrophyte content (Including marginal and aquatic vegetation); and
 - Barriers to the proposed works (Major roads, rivers, expanses of developed land).

¹ <http://www.magic.defra.gov.uk/>

2.3 Contextual Information

2.3.1 Where deemed relevant use has been made of the following additional information:

- A map indicating Great Crested Newt records provided by Matthew Ellis (Senior Species Officer, NRW) – received by email on 10/09/2013.
- Previous survey work (two torch surveys and egg searches) undertaken by Marches Ecology at Pond 2 (see *Figure 1a*) on 28th May and 2nd June 2008 for an unrelated project.
- An 'Ecology Scoping Survey' report by The Tyrer Partnership that was initially prepared for the planning application (The Tyrer Partnership 2013).

3 RESULTS

3.1 Site Description

Proposed Development Site

- 3.1.1 There is no aquatic habitat within the proposed development site. It is dominated by a single field unit which supports poor-semi improved grassland (*Target Note 1*). At the time of the walkover survey the sward was unmanaged with approximately 50% being to approximately 0.3 m in height, and the remaining 50% being to approximately 0.8 m in height. It is understood (Mr I. Maclean *pers. comm.*) that this grass has until very recently been subject to horse grazing which maintained a short sward – this is also noted in The Tyrer Partnership (2013).



- 3.1.2 The shorter areas of the sward at *Target Note 1* are characterised by *Lolium perenne* (Perennial Rye-grass) and *Agrostis capillaris* (Common Bent) with frequent *Festuca rubra* (Red Fescue) and occasional *Holcus lanatus* (Yorkshire-fog). The taller areas include abundant *Phleum pratense* (Timothy) with locally frequent *Dactylis glomerata* (Cock's-foot) – this vegetation is however not tussocky with the Cock's-foot in particular appearing to be dominated by young plants. A range of common grassland forbs/ tall-herbs are scattered throughout at various levels of abundances. A small stand of *Urtica dioica* (Common Nettle) dominated vegetation is located towards the southern hedgerow boundary. Similar stands of tall-herbs (although with a greater number of associated species such as *Heracleum sphondylium* (Hogweed), *Cirsium arvense* (Creeping Thistle) and *Rumex obtusifolius* (Broad-leaved Dock)) are located adjacent to Lavister Brook (*Target Note 2*). Occasional piles of wood chippings were also noted in the field.

- 3.1.3 The eastern boundary of the field is formed by Lavister Brook (*Target Note 2*, refer below). The southern and northern boundaries are formed by existing hedgerows. The southern boundary hedgerow (*Target Note 5*) is dominated by *Crataegus monogyna* (Hawthorn) and is of variable structure, being mostly managed to between 1 and 4 m in height, but locally unmanaged to 6 m; it is 1 to 2 m wide at the base. The northern boundary hedgerow (*Target Note 6*) partly comprises a mature conifer hedge, although the majority is dominated by *Crataegus monogyna* (Hawthorn) and *Prunus spinosa* (Blackthorn) (with a variety of other woody species at low levels of abundance); it is mostly between 1 and 3 m in height and width. Both hedgerows have a base characterised by abundant *Hedera helix* (Ivy).
- 3.1.4 To the west of the field is the existing Nags Head public house and associated car park/garden. The garden (*Target Note 3*) is characterised by small areas of closely mown lawn, concrete hard-standing and very occasional shrubs. It is bounded by wooden fences with concrete bargeboards. A range of ornamental shrubs are located along the car park side of the fence which forms the southern boundary of the garden. The car park (*Target Note 7*) comprises tarmac hard-standing and is virtually devoid of vegetation. The Nags Head public house itself was not assessed in detail as part of the walkover survey (as it does not form part of the proposed development).



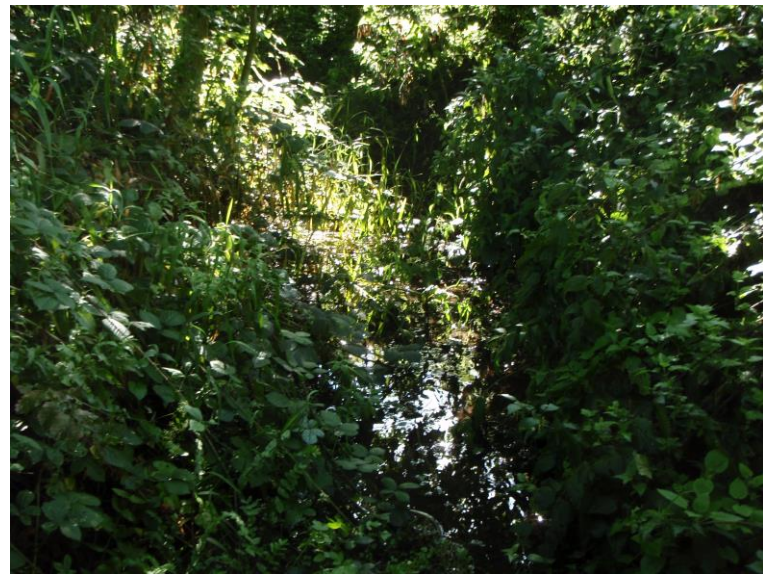
- 3.1.5 A short length of unmanaged ornamental hedge (*Target Note 4*) is located to the south of the pub garden, between the field at *Target Note 1* and the car park. This is characterised by a wide variety of ornamental species and is up to 3 m high and 2 m wide; the stump of a large tree is present along with occasional logs. The base is characterised by abundant *Hedera helix* (Ivy); locally several old fence panels were lying on the ground – along with the logs these provide potential refugia for amphibians, although none were located during a brief search underneath.



A short length of ornamental hedge at *Target Note 4*.

Immediately Adjacent Land

- 3.1.6 Chester Road is located to the immediate west of the proposed development site, further to the west of which are located houses/ open agricultural land. To the south and north lie domestic houses/ gardens. Darland Golf Course is located to the immediate east of the proposed development site, on the opposite side of Lavister Brook (*Target Note 2*).



Lavister Brook at *Target Note 2*.

- 3.1.7 At this location the brook is overhung by dense trees and scrub of varying maturity. The steep banks are approximately 1.5 to 2 m in height at a slope of between 60 and 75°. The

width of the channel is variable, being between 1 and 2 m wide at the water level. The water was no more than 0.05 m in depth with a slow/ moderate flow over silt/ pebbles. Locally the channel was encroached with vegetation – mainly *Apium nodiflorum* (Fool's-water-cress) – although where heavily shaded channel vegetation appeared absent. This feature is unlikely to represent a significant barrier to potential amphibian dispersal, except during periods of high flow; it is not suitable as a breeding resource for Great Crested Newts.

- 3.1.8 At *Target Note 8 (Figure 1a)*, Lavister Brook was observed further downstream on Darland Golf Course. Here the channel was entirely encroached with emergent vegetation, mostly *Epilobium hirsutum* (Great Willowherb).
- 3.1.9 Lavister Brook flows into Pulford Brook, which was observed where it passes under Chester Road (adjacent to the Grosvenor Pulford Hotel) at *Target Note 9*. At this location the brook is approximately 2-3 m wide with water to approximately 0.3 m deep with a slow/ moderate flow. This feature would be likely to represent a barrier to potential amphibian dispersal for much of the year.

3.2 Status of Great Crested Newts in the Area

Existing Information

- 3.2.1 A map provided by Matthew Ellis (NRW) does not detail any Great Crested Newt records from within approximately 500 m of the proposed development site². Only one record is indicated for within approximately 1 km – this being from a pond to the north-west of Llyndir Hall (approximate OS Grid Ref. SJ 366 581) located approximately 575 m to the west of the proposed development site. It should be noted that the map illustrates locations of records only; no other information (e.g. breeding location, terrestrial or aquatic record, date, number of animals, etc.) is detailed.
- 3.2.2 No Great Crested Newts or other species of newt were recorded at Pond 2 during detailed surveys undertaken by Marches Ecology in May/ June 2008 for a separate unrelated study. Common Toad (*Bufo bufo*) tadpoles were recorded as were large numbers of fish and waterfowl.

Pond Scoping Exercise

- 3.2.3 An initial review of the OS map 1:25, 000 scale, as well as a detailed review of the MAGIC web-site (including mapping and aerial photograph resources), indicated that there may be five ponds within approximately 500 m of the proposed development site. The presence/ absence of these waterbodies was confirmed during the walkover survey where possible and access allowed. *Table 1* below summarises the details of these waterbodies.

² It is understood that the 'records of great crested newts within 170m of the application site' as cited in Gareth Thomas' s letter detailed in *paragraph 1.1.2* are erroneous.

Table 1 – Ponds Within 500 m of the Proposed Development Site

Pond no.	OS Grid Ref.	Approx. Distance from Proposed Development Site	Source/ Notes
1	SJ 378 583	450 m	Shown on all sources reviewed. Located on Darland Golf Course. It was not possible to confirm the presence of this pond during the pond scoping exercise; however from aerial photography it appears to have a similar character to Pond 3.
2	SJ 376 579	345 m	Shown on all sources reviewed. A waterbody was confirmed as present during the pond scoping exercise.
3	SJ 374 584	90 m ³	Not shown on OS 1:25,000 map. Located on Darland Golf Course. A waterbody was confirmed as present during the pond scoping exercise (although it was dry).
4	SJ 373 586	310 m	Not shown on OS 1:25,000 map. Shown on MAGIC web-site mapping/ associated aerial photography. Located within the grounds of the Grosvenor Pulford Hotel. Only partly visible from adjacent Chester Road during pond scoping exercise.
5	SJ 371 583	100 m	Shown on all sources reviewed. It was not possible to confirm the presence of this pond during the pond scoping exercise – a tall unmanaged hedge restricts viewing from the adjacent minor road. The location is characterised by mature <i>Salix</i> sp. (Willow) and <i>Alnus glutinosa</i> (Alder) trees – no open water was visible. This pond is located on the opposite side of Chester Road from the proposed development site.

3.2.4 No other ponds were located during the pond scoping exercise. *Box 1* below provides a summary description/ photos of Ponds 2, 3 and 4. As detailed in *Table 1* above, Ponds 1 and 5 were not accessible

³ It is thought that this pond is the one detailed in Gareth Thomas's letter as being within '110m of the site of the proposed development'.

Box 1 – Pond Descriptions and Photos (as per Table 1)

Pond 2. A medium size lake that measures approximately 40 m by 50 m. The depth is unknown although it is full of coarse woody debris and silt. It is located within woodland and as such is well shaded by surrounding trees. There is virtually no marginal vegetation other than a small amount of *Solanum dulcamara* (Bittersweet). A small amount of *Iris pseudacorus* (Yellow Iris), *Lycopus europaeus* (Gypsywort), *Mentha aquatica* (Water-mint) and *Lemna minor* (Common Duckweed) was also noted. No aquatic vegetation was visible. Access to the water is difficult due to the soft margins with extensive areas of shallow water.



Pond 3. A shallow depression on Darland Golf Course, surrounded by closely mown amenity turf. It measures approximately 60 m by 30 m at its widest, although approximately 25% of the area comprises mature *Salix* sp. (Willow) scrub, with *Phragmites australis* (Common Reed) in the understory. The depression is otherwise characterised by abundant *Typha latifolia* (Bulrush), with other emergents including frequent *Equisetum* sp. (a Horsetail), occasional/ locally frequent *Juncus effusus* (Soft-rush), *Juncus inflexus* (Hard Rush) and *Schoenoplectus lacustris* (Common Club-rush), and lesser amounts of *Epilobium hirsutum* (Great Willowherb). Very occasional plants of *Glyceria fluitans* (Floating Sweet-grass) were noted at the edges. Occasional young/ incipient *Salix* sp. (Willow) saplings are also present throughout. The invasive non-native *Crassula helmsii* (New Zealand Pigmyweed) provides a dense mat over the base of the pond, which was dry. Occasional tussocks of *Juncus* sp. (Rush) and young *Salix* sp. (Willow) shrubs line the edge of the depression. It is unknown if it holds water during other times of the year.

The Lavister Brook (*Target Notes 2 and 8*) passes in close proximity to this feature and could provide a potential dispersal route (for amphibians) between it and the proposed development site.



Pond 4. An ornamental pond located in the well-managed grounds of the Grosvenor Pulford Hotel. It was just visible from the adjacent Chester Road. Some fringing emergent vegetation was noted as well as floating leaved Water Lily. It is considered likely that this pond supports fish, although this could not be confirmed. This pond is located on the opposite side of Chester Road and Pulford Brook (*Target Note 9*) from the proposed development site.

- 3.2.5 It should be noted that the pond scoping exercise was completed from PROWs and as such other ponds may be present in areas that couldn't be accessed/ viewed (e.g. in gardens/ on the golf course).

3.3 Summary of Results and Implications

- 3.3.1 There are at three known waterbodies (Ponds 2, 3 and 4) within 500 m of the proposed development site, with two further possible waterbodies (Ponds 1 and 5). Only two of these waterbodies (Ponds 3 and 5) are located within 250 m – of these Pond 3 was dry during the walkover. Although the presence of Pond 5 could not be confirmed if one is present at this location is it likely to be small, and shaded and therefore provide sub-optimal habitat (at best) for breeding Great Crested Newts. Pond 5 is also located on the opposite side of Chester Road from the proposed development site.
- 3.3.2 It is unknown if Pond 3 (located approximately 90 m from the proposed development site) holds water during other times of the year; however should this be the case it is unlikely to represent more than sub-optimal habitat for breeding Great Crested Newts and is considered unlikely to be capable of supporting more than a small population (a peak count of less than 10 individuals as per English Nature (2001)). Its proximity to Lavister Brook may mean that Pond 3 is subject to influx of water during high stream flows/ flooding events which would possibly facilitate the introduction of fish (e.g. Sticklebacks). Sticklebacks are known to significantly reduce the likelihood that Great Crested Newts might be present. Pond 3 is connected to the proposed development site by suitable terrestrial habitats (associated with Lavister Brook).

- 3.3.3 Based on the above information, the pond resource within 500 m of the proposed development site appears to be sub-optimal at best for Great Crested Newts. No records for Great Crested Newts are known from within 500 m of the proposed development site. However without further (presence/ absence) survey the presence of Great Crested Newts in one or more of these ponds cannot be ruled out. It is possible that animals (if present) could disperse across the proposed development site and also utilise it for foraging/ hibernation. Habitat of potential high value for foraging amphibians within the proposed development site are provided by the (currently) unmanaged grassland (*Target Note 1*) that dominates the proposed development site, as well as hedgerows (*Target Notes 4, 5 and 6*) – which also provide potential refugia/ hibernacula. It is noted (refer to *paragraph 3.1.1*) that the grassland at *Target Note 1* has until recently been maintained short by grazing horses – whilst grazed it is likely to have provided habitat of significantly less potential value (to amphibians). Very limited potential refugia/ hibernacula are also associated with the pub garden at *Target Note 3*.
- 3.3.4 Considering the above, the likelihood of Great Crested Newts utilising terrestrial habitat on the proposed development site is considered to be low/ negligible. No aquatic habitat will be directly or indirectly impacted by the proposed development. The proposals will result in the loss of the majority of the terrestrial habitat provided by the field at *Target Note 1*, although the scheme includes for the provision of gardens/ associated soft landscaping/ plantings which would become available to amphibians following the completion of the construction. Direct impacts on hedgerows are limited to the short length of ornamental hedge at *Target Note 4*. It is considered unlikely that any significant obstruction of potential dispersal routes would occur – Lavister Brook to the immediate east of the site will not be directly impacted and will be enhanced by the creation of a buffer strip (in addition development within 7 m of the brook will be limited to gardens). It is considered unlikely that the proposed development site is used for dispersal in an east-west direction due to the presence of Chester Road.
- 3.3.5 Due to the potentially low associated impacts and the sub-optimal quality of aquatic habitat in the area it is proposed in the first instance to implement a non-licensed Reasonable Avoidance Measures (RAMs) scheme in order to minimise/ avoid any impacts on amphibians that may be present in the area. If, during the undertaking of this precautionary RAMs scheme, a Great Crested Newt is found, it is likely to be necessary to suspend all works and consult Natural Resources Wales (NRW). It is possible that in this instance, a NRW 'development' licence might be required in order to lawfully proceed with the works. As such this RAMs Method Statement details a precautionary approach to avoid any impacts on [individual] Great Crested Newts. Subject to appropriate implementation of this RAMs scheme no impacts due to the proposed development on the local Great Crested Newt population are envisaged. No specific compensation measures are currently proposed – this was confirmed during a 'phone conversation with Matthew Ellis on 11th September 2013.

4 METHOD STATEMENT

4.1 Identification

4.1.1 This sub-section of the document is provided for reference in the event that any amphibians are found on site during the proposed development/ preparatory works and while the ecologist is not present. It will be discussed with all site personnel prior to the start of work. Identification of any newts that may be found is likely to require the confirmation of a suitably qualified ecologist.

4.1.2 Great Crested Newts are the largest of the three British species of newt; adult males can reach 15 cm in length, with females slightly larger at 18 cm. The upper surface and flanks are dark brown or black and distinctly warty, with a row of white/silver dots present along the side of the head and body. Males develop a characteristic jagged dorsal crest (which has a marked break where the tail joins the body) during the breeding season (although this lies flat when newts are on dry land). The belly is dark orange or yellow with a distinct pattern of black blotches. The throat is whitish and thickly spotted with brown/black.



Male Great Crested Newt on land (above) and female (below).



4.1.3 The Great Crested Newt may be confused with the Smooth Newt (*Lissotriton vulgaris*), although adults of this species are generally smaller (at 10-11 cm). In addition, although the male Smooth Newt develops a dorsal crest, this is unbroken from head to tail and is also undulating, as opposed to jagged. The male has brown/olive green or tan skin with black spots and the female a light brown colouration with darker spots or speckles. The belly of both the male and female is creamy yellow or orange, and the throat slightly lighter, both with dark spots or speckles.



Male Smooth Newts on land.

- 4.1.4 The third species of British Newt is the Palmate Newt (*Lissotriton helveticus*). It is slightly smaller than the Smooth Newt at 7-11 cm in length, although is superficially similar to the Smooth Newt. The two species can be difficult to distinguish, particularly females. The male Palmate Newt has a much less developed dorsal crest (which is also straight edged as opposed to undulating) than a male Smooth Newt. The male Palmate has a 4-7 mm tail filament and black frills / well developed webbing on the hind feet. Typically, the throat of males and females is pure white/pinkish and very rarely spotted (in contrast to Smooth Newts).

4.2 Preparatory

- 4.2.1 This RAMs Method Statement will be discussed in detail with all personnel/ contractors involved with the proposed construction project before any works are carried out. This will take the form of a toolbox talk/ site meeting to be presented by the ecologist and will identify:
- the known status of Great Crested Newts in the area;
 - legal protection afforded Great Crested Newt and associated penalties;
 - identification features of Great Crested Newts;
 - responsibilities of site personnel/ on-site contractors with regards implementation of a working protocol (to include provision of a watching brief);
 - the areas within which activity should be restricted, and
 - the procedure to follow should a Great Crested Newt be located during the works.
- 4.2.2 The tool-box talk will also consider biosecurity measures as detailed in Marches Ecology (2013).
- 4.2.3 A signed copy of the method statement will be retained by the ecologist to confirm that site personnel/ contractors have understood the method statement. A copy of this document will then be kept on site for the duration of the construction period. The contact details of the ecologist responsible for implementing this RAMs Method Statement will be provided to all site personnel before the start of work. This method statement must be strictly adhered to by all site personnel/ contractors involved with the proposed works.

- 4.2.4 Should a Great Crested Newt be located during implementation of the RAMs (see below) then it would be moved away from the immediate work area by the ecologist and relocated for welfare reasons only to a suitable receptor site (likely to be the Lavister Brook stream corridor at *Target Note 2*). All work would then be suspended and Natural Resources Wales consulted. It is possible that in this instance or if a Great Crested Newt is found at any other time during the work, a NRW 'development' licence may be required in order to lawfully proceed. Other amphibians that may be found during the implementation of the RAMs scheme would also be moved to the 'receptor site'.

4.3 Working Protocol

- 4.3.1 Visual-/ hand-searches as detailed below will be undertaken by a suitably licensed ecologist (holding a Natural Resources Wales Great Crested Newt 'survey and disturbance' licence). To prevent unnecessary potential disturbance to Great Crested Newts (or other amphibians), and exposing them to potential harmful conditions, all visual-/ hand-searches will be undertaken during mild weather (*i.e.* above 5 °C temperature for the day and subsequent night). A watching brief will be maintained by site personnel who have attended a tool-box talk.

Vegetation/ soil-stripping

- 4.3.2 A suitably licensed ecologist will undertake a visual-/ hand-search prior to the initiation of any work (such as vegetation/ soil-stripping) at the start of the construction period. The visual-/ hand-search will focus on the footprint of the proposed development as well as any immediately adjacent areas that may be used for storage of materials, vehicles or machinery. This search would concentrate on features that might be utilised by Great Crested Newts as refugia and that may be impacted by the proposal.
- 4.3.3 Prior to any vehicles/ other machinery accessing the development site, grass vegetation within the field at *Target Note 1* will be initially cut down to approximately 10-15 cm above ground level using hand-held tools (*e.g.* strimmer). The cut vegetation will subsequently be raked up (using a spring-tined rake) and carried by hand, or blown (using a back-mounted leaf blower) and deposited outside the development site.
- 4.3.4 Further to the grass vegetation being cut down to approximately 10-15 cm above ground level a suitably qualified ecologist will then undertake a visual-/ hand-search. This search will concentrate in particular on any potential refugia such as the base of grass tussocks. Any potential surface refugia that can be easily moved will also be removed from the area.
- 4.3.5 Further to this initial vegetation cut and hand-/ visual-search, any remaining vegetation will be cut to ground level, again using hand-held tools, and the arisings removed off site. This will ensure, as far as is reasonably practical, that the surface of these areas is unsuitable for Great Crested Newts.
- 4.3.6 Further to the vegetation clearance, soil-stripping/ site clearance works in the field at *Target Note 1* can be initiated. If these activities are to be undertaken as a separate task to the vegetation clearance, an additional detailed visual/ hand-search will be undertaken by an ecologist at the start of each working day when stripping is to be undertaken. Areas that have not been subject to visual/ hand-searches will be clearly marked with hazard tape or

similar and site personnel/ contractors will be made aware not to access such areas. Where possible, the soil stripping will incorporate associated ground preparation to ensure that the ground is compacted and that no potential refugia are created within the development site.

- 4.3.7 Boundary habitats to be retained (for example the hedges at *Target Notes 5 and 6* and the Lavister Brook (*Target Note 2*)/ associated buffer strip) will be subsequently fenced off from the development site (as deemed necessary by the ecologist) and all site personnel made aware of its purpose. Subsequently no works/ vehicle access will be undertaken outside of the fenced areas without the prior knowledge of the ecologist.
- 4.3.8 The pub garden at *Target Note 3* will also be subject to hand-/ visual-searches as deemed necessary by the ecologist prior to/ during clearance of this area. In addition the removal of the boundary fences will be supervised.
- 4.3.9 Any large shrubs (e.g. *Target Note 3*)/ length of hedge (e.g. *Target Note 4*) to be removed will be carefully extracted from the ground using a digger or similar machine – where considered necessary by the ecologist, this will be undertaken by slowly pulling the shrubs out of the ground (rather than scooping the shrubs and roots up whole with the bucket); the ecologist will supervise this process and will search through any roots/ loose soil *etc* as the shrubs are removed. With regards the hedge at *Target Note 4*, care will be taken to hand-search the base of the hedge prior to removing the shrubs.
- 4.3.10 As stated above if a Great Crested Newt is found during the vegetation clearance/ hand-/ visual-searches it will be moved (for reasons of welfare only) to an appropriate 'receptor site' outside the footprint of the development. All work would then be suspended and NRW consulted. It is possible that in this instance a NRW 'development' licence may be required in order to lawfully proceed.

Watching brief

- 4.3.11 Outside the requirements outlined above, the licensed ecologist will remain on stand-by (off-site) for the duration of the work. All site personnel/ contractors (having attended a tool-box talk) will maintain a watching brief throughout the development works. This will involve making visual searches at the start of each working day to ensure no amphibians are present. When stored materials/ equipment/ temporary structures are moved, particular attention will be paid to determine if any amphibians are located underneath.
- 4.3.12 Should a newt be found during the work, on-site contractors will halt all activity immediately, contact the ecologist and wait until the ecologist arrives to remove the newt to an appropriate location. If any newt is found during the work the ecologist should be called to confirm identification before any action is taken. If other amphibians such as Common Frog (*Rana temporaria*) or Common Toad (*Bufo bufo*) are found during work, and confidently identified, then on-site contractors can move it to an appropriate location, such as the Lavister Brook stream corridor at *Target Note 2* (firstly making sure their hands are damp).

Further requirements

4.3.13 In addition to that outlined above, the following measures will be undertaken:

- Any excavated soil that may be stored on site overnight should ideally be stored in skips or similar. Where this is not possible soil mounds will be subject to compaction on creation. This will ensure, as far as is practicable, that the creation of potential refugia associated with the mounds is limited. Depending on the size/ structure/ longevity of any such mounds it may be considered necessary for the ecologist to conduct a hand-search prior to their removal *etc.*;
- Any loose building materials/ rubble that may be stored on site overnight should ideally be stored in skips or similar. If this is not possible such items must be placed on plastic sheeting on top of a pallet (or similar) so that it is raised off the ground;
- Any trenches/ excavations associated with the development site that are left open overnight will incorporate features to ensure newts/ other amphibians have a means of escape (such as leaving a ramp (or similar structure) to allow newts to easily exit). Furthermore a visual search of any trenches/ holes will be undertaken by site contractors at the start of each day to ensure no amphibians are present. Wherever possible holes/ excavations should not be left open overnight;
- The site boundaries will be appropriately fenced to ensure no accidental ingress by machinery into areas of adjacent terrestrial habitat (e.g. the boundary hedgerows and Lavister Brook/ associated buffer);
- All work will be undertaken from areas of existing hard-standing/ compacted earth wherever possible. No machinery or other materials will be stored on any grass or other vegetation over night;
- No machinery/ vehicles will access any vegetated area outside the proposed development site unless under supervision by the ecologist where necessary;
- Prior to leaving the site at the end of each day, all tools and other materials will be stored securely either off-site or located on hard-standing/ within secure facilities;
- Machinery and vehicles will be located on hard-standing/ compacted surfaces overnight;
- Prior to removal of any structures that are temporarily stored on site they should be lifted vertically and a visual search for amphibians should be conducted;
- Any servicing or repair of machinery or vehicles will be carried out on areas of hard-standing and not near Lavister Brook; and
- Maintenance of any areas of vegetation that may be retained and/or develop in the construction site as short as possible by regular mowing/ strimming.

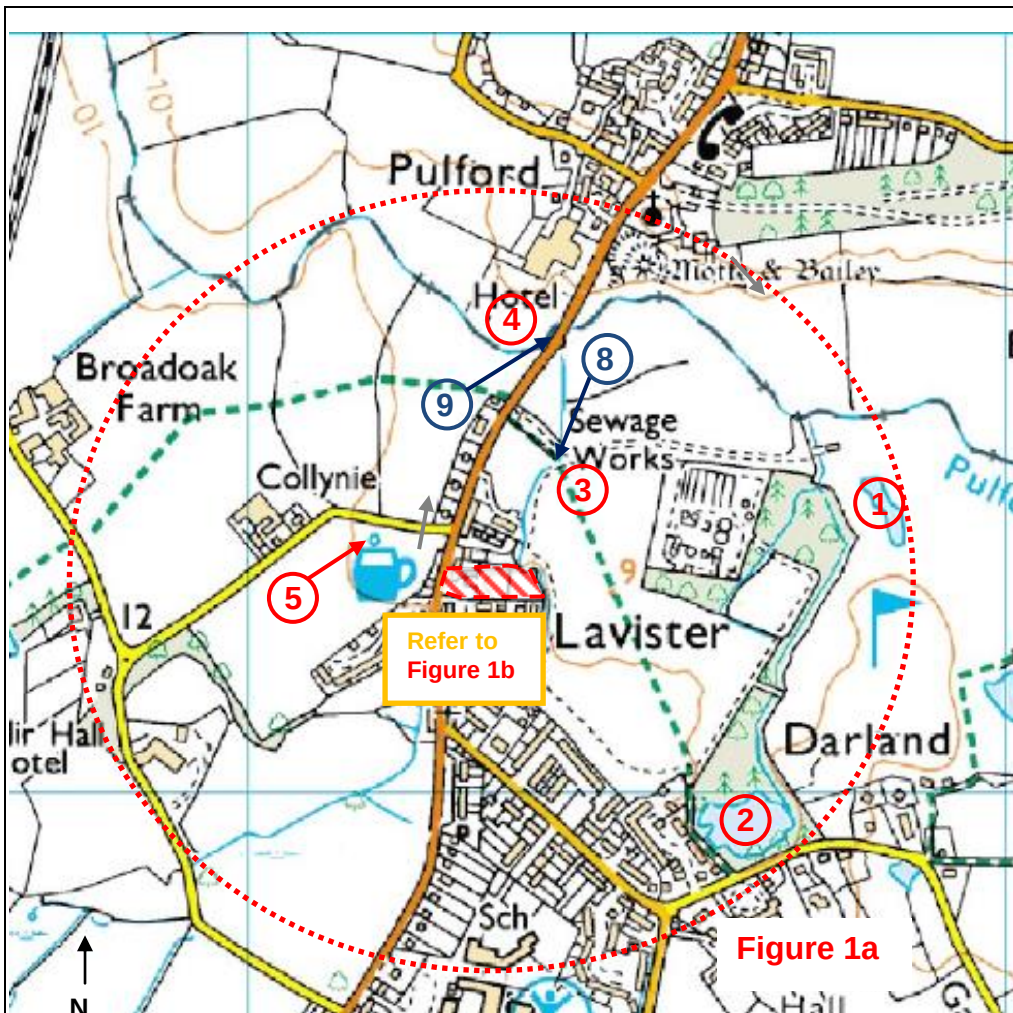
4.4 Signatories

I have read and understand the requirements of this method statement.

Print	Signed	Company	Date

5 REFERENCES

- English Nature (2001). *Great Crested Newt Mitigation Guidelines – Version: August 2001*. English Nature, Peterborough.
- HMSO (1981). *The Wildlife and Countryside Act 1981*. HMSO, London.
- HMSO (2000). *The Countryside and Rights of Way Act 2000*. HMSO, London.
- HMSO (2006). *The Natural Environment and Rural Communities Act 2006*. HMSO, London.
- HMSO (2010). *The Conservation of Habitats and Species Regulations 2010*. HMSO, London.
- HMSO (2012). *The Conservation of Habitats and Species (Amendment) Regulations 2012*. HMSO, London.
- <http://www.magic.defra.gov.uk/>
- Marches Ecology (2013). *Proposed Housing Development, Land to the Rear of the Nags Head, Chester Road, Lavister, Wrexham – Biosecurity Risk Assessment*. Produced on behalf of Hilbre Estates Ltd.
- Oldham, R.S., Keeble, J., Swan, M.J.S. & Jeffcote, M. (2000). Evaluating the Suitability of Habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal*, Vol 10, pp143-155.
- The Tyrer Partnership (2013). *Land to the rear of the Nags Head, Chester Road, Lavister, LL12 0DF – Ecological Scoping Survey*. Produced on behalf of Hilbre Estates Ltd.
- UK Biodiversity Steering Group (1995). *Biodiversity: The UK Steering Group Report Volume 2: Action Plans*. HMSO, London.
- UK Biodiversity Steering Group (1998a). *UK Biodiversity Group Tranche 2 Action Plans Vol I Vertebrates and Vascular Plants*. English Nature.
- UK Biodiversity Steering Group (1998b). *UK Biodiversity Group Tranche 2 Action Plans: Volume II – Terrestrial and Freshwater Habitats*. English Nature.
- Wrexham County Borough (2003). *Wrexham Biodiversity Action Plan (Edition 2 – September 2003)*. The Planning Department, WCBC.



Mapping data licensed from Ordnance Survey with the permission of the Controller of Her Majesty's Stationary Office © Crown copyright 2005. All rights reserved. Licence Number 100046285.

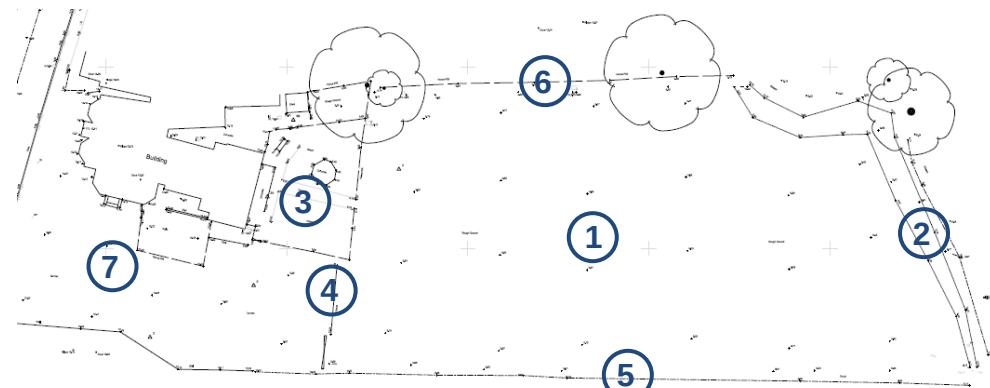


Figure 1b

Also see Figure 1a for Target Notes 8 and 9

Base mapping from a Powers&Tiltman Ltd plan entitled 'Nags Head, Lavister – Topographical Survey', drawing no. 6649/01 (dated 05/04/13).

Marches Ecology

C235 Proposed Housing Development, Land to the Rear of the Nags Head, Chester Road, Lavister, Wrexham– Great Crested Newt Reasonable Avoidance Measures Method Statement

Figure 1a – Waterbodies Located within 500 m of the Proposed Development Site; Figure 1b – Target Notes

Drawn by: ME
Checked by: TK
Date: 10.09.13

Key

- 1 Waterbody
- Approximate 500 m boundary
- 1 Target Note