
Woodlands Farm

on behalf of Wales and West Housing Association

Great Crested Newt Mitigation Strategy



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1 INTRODUCTION

1.1 Background

1.1.1 This Great Crested Newt (GCN) Mitigation Strategy has been prepared in relation to the proposed residential development of land at Woodlands Farm, Dodds Lane, Gwersyllt, Wrexham on behalf of Wales and West Housing Association. The proposed development comprises the delivery of 23 affordable residential homes with associated parking, landscaping and ancillary works.

1.1.2 Due to the confirmed presence of great crested newts within the wider area surrounding the development site (hereafter referred to as the 'Site'), the development is required to provide habitat provision for great crested newts and long term management, in accordance with Condition 9 of the planning consent (Application Ref.: P/2018/0997).

Condition 9 – No development shall commence until the following have been submitted to and approved in writing by the Local Planning Authority:

- a) *A detailed plan of mitigation area for Great Crested Newts;*
- b) *An Ecological Method Statement including a timetable for the implementation of the habitat mitigation measures;*
- c) *A long-term Management and Monitoring Plan for the mitigation area; and,*
- d) *A Bio-security Risk Assessment.*

Great Crested Newt mitigation shall therefore be provided and thereafter permanently retained and managed in strict accordance with the detailed as approved.

Reason: In order to protect statutory protected species in accordance with policy EC6 of the Wrexham Unitary Development Plan.

1.1.3 The proposed development will provide an area that will be enhanced for great crested newts referred to in this report as the '*Great Crested Newt Habitat Area*'; while this report specifically relates to great crested newts, these enhancements will also provide a wider benefit for other wildlife.

1.1.4 This report sets out habitat creation and enhancement to be delivered as part of the proposed residential development and presents a strategy for the long-term maintenance and management.

1.1.5 The habitat creation and enhancement presented within this report is designed to complement any future mitigation provided as part of a Great Crested Newt Master Plan, a strategy designed by Wrexham Borough Council for proposed future development in the wider area.

1.1.6 Construction Phase Reasonable Avoidance Measures (RAMs) are presented in a separate report.

2 GREAT CRESTED NEWT MASTER PLAN

- 2.1.1 The proposed Great Crested Newt Habitat Area lies adjacent to land that has been separately identified in the Great Crested Newt Master Plan (Wrexham Borough Council, 2013) as a proposed Newt Mitigation Site for future development (see **Appendix 1**). The habitat creation and enhancement delivered as part of this development for the benefit of great crested newt will complement these proposed Mitigation Sites, as and when they come forward.

3 MITIGATION STRATEGY

3.1 Reasonable Avoidance Measures

- 3.1.1 Construction Phase Reasonable Avoidance Measures (RAMs) are presented in a separate report (*Woodlands Farm – Method Statement: Great Crested Newt Reasonable Avoidance Measures*, Avian Ecology 2020).

3.2 Habitat Enhancement & Creation

- 3.2.1 The development will include habitat creation to enhance the environs for great crested newts. The habitat creation and enhancement measures are proposed on land outside the development boundary but within wider landownership. These area is referred to as the '*Great Crested Newt Habitat Areas*' and is located to the east of the residential development as identified in **Figure 1**. The proposed enhancement will include the planting of new hedgerow and scrub, management of grassland to provide favourable habitat conditions and the construction of hibernacula which together will provide habitat connectivity, enhanced foraging and additional refuge habitat.

Hedgerow and Scrub Planting

- 3.2.2 New hedgerow and scrub will be planted and existing hedgerows strengthened where required along the boundary of the Great Crested Newt Habitat Area as shown in **Figure 2**. Hedgerows will be notch planted in a double staggered row, planted approximately at 5 plants per linear metre or infilled as required. Species planted will include the following native species which are recommended by Wrexham County Borough Council (WCBC) for use in hedgerow planting.

- Hawthorn *Crataegus monogyna*
 - Blackthorn *Prunus spinosa*
 - Hazel *Corylus avellana*
 - Dog rose *Rosa canina* spp.
 - Black current *Ribes nigrum*
 - Crab apple *Malus sylvestris*
 - Field maple *Acer campestre*
- } these two species should form approximately 80% of hedgerow planting

- 3.2.3 The exact timing of the proposed planting will be dependent on the ground conditions but bare-root planting should ideally take place between the months of November-February inclusive. It is expected that ground conditions and climate will allow for earlier planting (i.e. before January), and this will allow the plants more time to establish a network of feeder roots before the onset of spring. Planting should avoid freezing and water logged conditions.
- 3.2.4 Planting slots shall be made using a planting spade. Plant notches should be L- shaped or straight, using spades of a design suitable for this purpose. The planting notches must be vertical and deep enough for the roots to hang freely, with the transplant being planted so that the root collar is

exactly level with the ground surface. The notch must then be closed and the soil well firmed round the roots in line with the guidelines as set out in BS 4428 (1989).

- 3.2.5 Planting stock will be protected from rabbit damage using approved proprietary 600mm clear plastic spiral guards, supported with 0.9m 12/14lb canes as advised by the manufacturer or rabbit-proof fencing as preferred.
- 3.2.6 All plants will be watered at the end of each day of planting and a minimum 50mm of bark mulch added.

Grassland Enhancement

- 3.2.7 Enhancement of grassland habitat within the Great Crested Newt Mitigation Area will be provided largely through the management of the existing grassland. However, some areas may require seeding to re-establish grassland cover; this will be implemented using seed mixes appropriate to the soil type, tolerant of both sun and shade and native to the UK. The management objective for grassland habitat is to encourage both species and structural diversity over time, benefitting a range of species including invertebrates, amphibians, birds and small mammals.
- 3.2.8 Where re-seeding is required, this should be undertaken in accordance with BS 4428:1989 Code of Practice for general landscape operations (excluding hard surfaces), or the most up to date and current British Standard.

Hibernacula Construction

- 3.2.9 Four artificial hibernacula will be constructed within the Great Crested Newt Mitigation Area; these will provide safe refuge for amphibian species. These will follow the standard design as detailed in the Great Crested Newt Mitigation Guidelines (English nature 2001) and reproduced in **Diagram 1**.

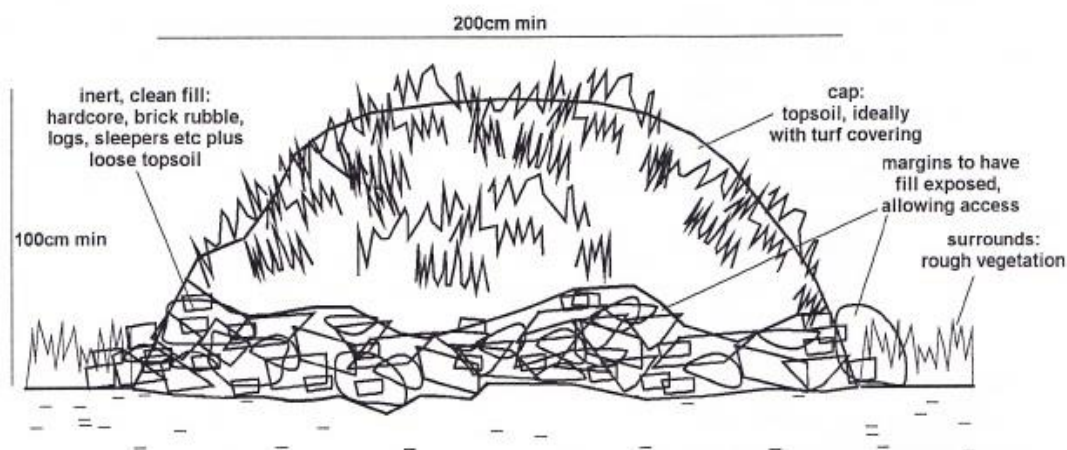


Diagram 1 Hibernacula design taken from the Great Crested Newt Mitigation Guidelines (English Nature 2001).

- 3.2.10 The hibernacula will be set within the coarse grassland or woodland edge to provide extra shelter. Each will comprise a mound of brick rubble, boulders and logs capped with topsoil and turf. Margins will be left exposed allowing amphibians to access the feature.

4 HABITAT MANAGEMENT

4.1 Aquatic and Terrestrial Habitat Management

Hedgerow and Scrub Management

- 4.1.1 During the establishment period of new planting (the first five years), all dead, dying or diseased stock will be replaced with stock of similar size and species by the appointed contractor at his own cost. If the failure of the plant is due to disease and the disease is considered likely to re-occur then an alternative native species of local provenance may be used as a replacement. The exact timing of the planting of replacement hedgerow and trees is dependent on the ground conditions; however, planting should ideally take place between the months of November and February inclusive, this will allow the plants more time to establish a network of feeder roots before the onset of spring.
- 4.1.2 Planting will be kept weed-free during the establishment period, using approved hand-weeding or if necessary, herbicide treatment (applications in April, June and August). The herbicide handbook (English Nature, 2003) provides guidance on appropriate herbicide use in relation to nature conservation works. Where used, herbicides will be sprayed in appropriate weather conditions, to avoid affecting adjacent grassland areas.
- 4.1.3 During the establishment period, the planted hedgerows plants should be inspected during periods of warm weather and drought (dry periods of at least seven days). If it is considered that the ground conditions are too dry, the planted areas will be watered on a regular basis until weather conditions are considered suitable for watering to cease.
- 4.1.4 During establishment, hedgerows will be trimmed outside each growing season; hedgerows will be cut back by half the growth of that year with pruning aiming to encourage the development of healthy well-shaped specimens. New hedgerows will be trimmed using powered hand-held machinery.
- 4.1.5 Once established, all hedgerows will be cut on a 2-3-year flexible basis. Ideally not all hedgerows will be cut in the same year for the benefit of wildlife and to allow sections of hedgerow to flower and set seed/fruit. Established hedgerows will be cut between late September and February.
- 4.1.6 No cutting or trimming is to be undertaken during the breeding bird season (01st March to 31st August inclusive).
- 4.1.7 After the establishment period planting guards (where used) will be removed and all hedgerows will be maintained at a height of approximately 2-3m as necessary.

Grassland Management

- 4.1.8 Grassland will be managed to establish long meadow/tussock grassland with a varied structure, of higher value to wildlife, including great crested newts.
- 4.1.9 The grassland will generally be managed with a single cut (reducing sward height to approximately 150mm) late in the season, between August and September. The late cuts will allow the seeds of the later flowering species to fall prior to the cut. An additional early cut may occasionally be required to prevent encroachment of weeds or over-competitive species.
- 4.1.10 Cutting should be commenced from the inside of the area, working outwards towards the boundary features. This systematic cutting will allow fauna such as birds and small mammals to safely vacate the area temporarily.

- 4.1.11 The management of this area will take a flexible approach and the exact dates will be dependent upon weather conditions. A phased (rotational) cutting regime is recommended (i.e. ideally the entire area should not be cut at the same time) in order to allow for more structured grassland and to provide some areas of refuge for amphibians and other wildlife at all times

Hibernacula Management

- 4.1.12 Monitoring of the hibernacula will be undertaken annually (July - September) following creation and will be repaired or built-up as and when required prior to the winter hibernation / dormancy period (typically November to February inclusive). Management will also include the removal of any barriers that may hinder GCN movements.
- 4.1.13 A licence from NRW or the presence of a licensed ecologist may be required, if hibernacula are required to be dismantled or moved for any reason. NRW and Wrexham Borough Council should be contacted prior to any such works commencing.

4.2 Bio-security

- 4.2.1 All onsite contractors will be required to comply with bio-security measures, such as those put forward by the Forestry Commission whilst undertaking works on site. Tools and machinery such as chainsaws, spades, climbing equipment, PPE (boots and gloves) and vehicles have the potential to transfer pests and disease from site to site.
- 4.2.2 If any invasive plant species are discovered on Site (such as Himalayan balsam or Japanese knotweed), works at this location will cease and the project ecologist will be contacted immediately for specialist advice in order to prevent the accidental spread of such species. The potential presence of invasive non-native species will be addressed as part of the induction tool box talk delivered to all site based operatives immediately prior to the commencement of site works.
- 4.2.3 All nursery stock supplied for new planting will be checked and confirmed as free from pests and disease.

5 MONITORING AND REVIEW

- 5.1.1 The development of the biodiversity interest will be monitored over time; this will involve an inspection of the planted hedgerows, grassland and any other ecological enhancement features to ensure that they are being managed in a manner suitable for the enhancement of wildlife interest. The results of these monitoring surveys will be used to inform future changes in management and the need or otherwise to replace dead or dying tree and hedge plants. The management will be amended if necessary, based on the monitoring recommendations.

6 TIMETABLE FOR THE IMPLEMENTATION OF THE HABITAT ENHANCEMENT MEASURES

KEY

	No works programmed
	Management works can be undertaken but not the preferred period
	Recommended period for undertaking management works
*	Works only required if conditions / monitoring demonstrate that management is required

The following management programme covers the first 10 years and identifies the optimum months in which activities can be undertaken (Year 1 is the year development commences).

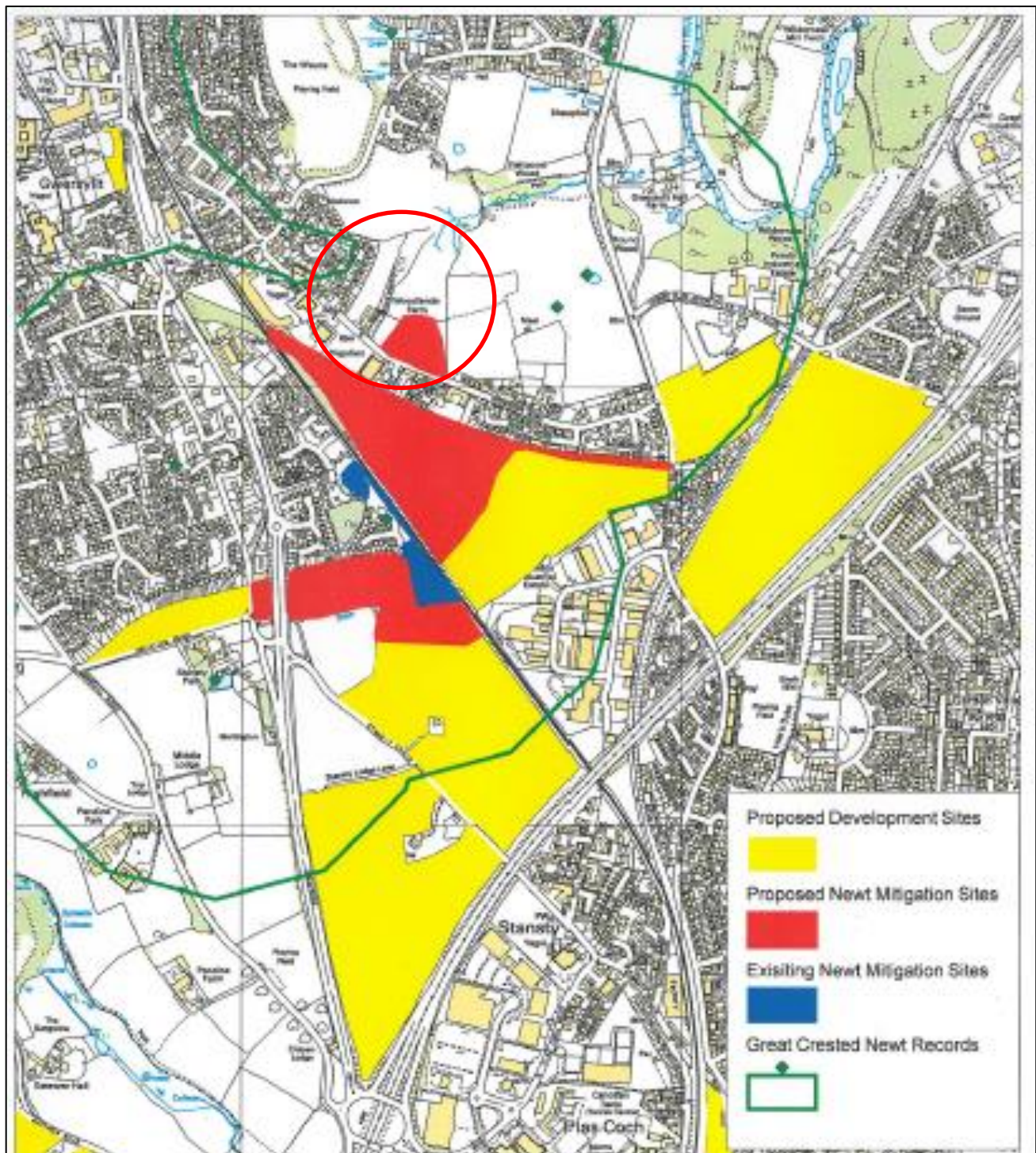
Habitat Creation and Enhancement	Year 1											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
<i>Initial Habitat Works</i>												
Hedgerow, tree and native shrub planting												
Grassland seeding (if required)												
Creation of hibernacula												

Management	Years 2 - 10											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
New hedgerows / scrub – Regular checks, watering, weed removal etc. during the first 5 years.												
Hedgerows and trees – Regular inspection remedial works undertaken as and when required, taking account of relevant legislation. hedgerows cut on a 2-3 basis once established. avoiding the breeding bird season March 01 st to August 31 st inclusive).												
Grassland – Subject to a single annual cut reducing sward to approximately 150mm												
Hibernacula - Annual monitoring												
Hibernacula - repaired or built up as and when required, prior to the winter dormancy / hibernation period (taking account of relevant wildlife legislative)*.												

Appendix 1

Great crested Newt Mitigation Master Plan (Wrexham Borough Council, 2013)

Red Circle Identifies Site Location in Context of the Master Plan.



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Chief Planning Officer

Great Crested Newt Master Plan

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Date : 11/11/2013

wrexham
COUNTY BOROUGH COUNCIL
CHWYBWRD Y BORO
wrecsam

FIGURE 1

Development Site Boundary



Legend
 Site boundary

1:10,000 scale map of the site and its surroundings
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Rev	Date	Description	No	App

WOODLANDS FARM



AERIAL IMAGE



Great Crested Newt Mitigation Strategy - Habitat Creation and Enhancement



Legend

- Newt mitigation areas habitat links
- New hedgerow/infill planting

This map contains data from the following sources:
Ordnance Survey (2019)
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1:50,000 scale (1:50,000).

Co-ordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Metres

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WOODLANDS FARM

avianecology

UPDATED MITIGATION PLAN :
FEBRUARY 2019
MAP 1 OF 1

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