APPENDIX B7.7 – GREAT CRESTED NEWT MITIGATION STRATEGY

Introduction

1.1 The GCN mitigation strategy follows the principles outlined in the English Nature's *'Great Crested Newt Mitigation Guidelines'* (August 2001).[1]

1.2 The principal elements of the GCN mitigation strategy are:

- Retention and enhancement of habitats of primary importance for GCN;
- Measures to prevent harm to individual GCN; and
- Habitat creation and enhancement.

Licensing Requirements

1.3 In order to carry out the mitigation measures detailed in this strategy, a disturbance licence will need to be obtained from Natural England under the Conservation of Habitats and Species (Amendment) Regulations 2012.

Methods

Retention and enhancement of habitats of primary importance for GCN

1.4 Provision has been made to retain as many hedgerows as possible within the site and new areas of public open space and structure landscaping will retain potential terrestrial habitat for GCN and other amphibians within the site. Management of these areas, which will be detailed under an Ecology and Landscape Management Plan, will maintain their value for GCN and other amphibians within the development.

Prevention of harm to GCN

Exclusion fencing

1.5 Amphibian exclusion fencing will be erected before any site clearance or construction works take place. The fence will be constructed with timber posts and plastic sheeting or more permanent plastic sheeting sunk into the ground at the base. The top of the fence will have an overhang to prevent newts from climbing

[1] English Nature (2001) *Great Crested Newt Mitigation Guidelines.* English Nature, Peterborough.

over the fence. At temporary access gates/grids the plastic will be weighted down at the base to ensure that the integrity of the fence is not compromised and such gates/grids will be closed during the hours of darkness.

1.6 Depending on the size of area of the site which falls within/up to 500m of Pond P6, compartment fencing may be used to divide up the area from which newts need to be excluded. Compartment fencing consists of lengths of amphibian fencing between the perimeter fences and each compartment will be subject to its own programme of newt capture in order to increase the efficiency of the capture effort.

1.7 The exclusion fencing will be hand searched upon installation and before it is removed on the completion of the development works.

1.8 All newt protection measures undertaken must be carried out under the supervision of an experienced ecologist under licence by Natural England and all machinery will be confined to an agreed working area until exclusion had been completed with care taken not to disturb other wildlife.

1.9 Amphibian fencing and pitfall traps will be designed and installed in accordance with English Nature's *"Great Crested Newt Mitigation Guidelines"*. All fencing will undergo regular checks and maintenance to ensure that it remains fit for purpose.

GCN Capture and Translocation

1.10 GCN will be captured from the habitats to be excluded and moved to an appropriate receptor site using the following methods below:

Pitfall Trapping

1.11 The design and installation of pitfall traps will follow Natural England guidance. The exact specifications of the traps will depend on their source, however they are likely to comprise plastic buckets with vertical sides, approximately 36cm in height and 28cm diameter. Vegetation will be placed in the bottom of each trap to provide cover for captured animals, with a mammal ladder to allow accidentally captured mammals to escape. Close-fitting lids will be used to close the traps when they are not in use.

1.12 Pitfall traps will be sunk into the ground as close to the exclusion fence as possible. The density of pitfall traps is dependent on the size of GCN population found. For example land within 500m of a small population of GCN require a pitfall trap density of 50 per Ha and land within 500m of a medium population require 80 traps per Ha. Similar densities of refuges are also recommended by Natural England.

1.13 Trapping will be undertaken in appropriate weather conditions i.e. when night-time air temperature is greater than 5°C, with recent rain. A licensed person or accredited agent will check the traps before 11am each morning following a capture night.

1.14 The capture effort is dependent on the size of GCN population. For example land within 500m of a small population of GCN will undergo a minimum of 30 nights capture and land within 500m of a medium GCN population will be subject to a minimum of 60 nights capture assuming weather conditions are suitable. Trapping will be discontinued in each compartment of the excluded area after the minimum number of nights of trapping activity can be completed and when there have been five nights in which no GCN have been captured.

Refuges

1.15 Carpet tiles or roof sheets will be placed along the fence-lines at the same density as pitfall traps. The tiles will be checked in the mornings at the same time as the pitfall traps by a licensed ecologist.

Hand-searching and torchlight searching

1.16 Hand-searching will be carried out prior to any amphibian fencing works to ensure newts are not harmed by this operation and any found will be carefully moved to the receptor site. Possible refuges within the working area will also be searched for newts.

1.17 After amphibian fencing has been installed and operation of the pitfall traps has started, torchlight searching, using high powered torches, will also be carried out on each night of pitfall trapping. Any newts found by torchlight searching within the working area will placed in the receptor site.

Receptor Site

1.18 The receptor site will be located within the site most likely in the open space areas designated for surface water attenuation. One to three ponds will be constructed which will be designed specifically for GCN. These will not be balancing ponds.

1.19 Marginal and aquatic planting will be undertaken at the ponds (and also in other wetland areas) to enhance their value for biodiversity. An appropriate seed mix, e.g. Emorsgate Seed Mix EM1 – Pond Edge Mixture), will be planted around the ponds and a range of aquatic species which are of value for GCN as egg-laying plants including water forget-me-not (*Myosotis scorpoides*), water mint (*Mentha aquatica*), reed canary grass (*Phalaris arundiacea*), brooklime (*Veronica beccabunga*) and water

plantain (*Alismo plantago-aquatica*) tufted forget-me-not (*Myosotis laxis*), water-cress (*Rarippa nasturtium-aquaticum*), branched bur-reed (*Sparganium erectum*), floating sweet-grass (*Glyceria fluitans*), fool's-water-cress (*Apium nodiflorum*), blue water-speedwell (*Veronica anagallis-aquatica*) and broad leaved pondweed (*Potamogeton natans*) will be planted in the margins of the ponds.

1.20 Two hibernacula are being provided as an enhancement measure for reptiles as part of the development which any GCN or other amphibians will also be able to exploit. One of these hibernacula will be located in close proximity to the proposed pond(s).

Habitat Creation and Enhancements

1.21 As described above, one to three ponds will be constructed within the receptor site which will be designed specifically for GCN. Marginal and aquatic planting will be undertaken at these ponds. Two hibernacula will also be created within the site. One of these hibernacula will be located close to the pond(s).

Monitoring

1.22 GCN populations will be monitored in accordance with English Nature's '*Great Crested Newt Mitigation Guidelines*.'

Management

1.23 Management of habitats of value for GCN will be included in an Ecology and Landscape Management Plan to be prepared for the site.