

Farming &  
Wildlife  
Advisory  
Group

**FWAG East**

**FWAG East Consultancy Ltd**  
Church Farm  
Maris Lane  
Trumpington  
Cambridge  
CB2 9LG

E: [ponds@fwageast.org.uk](mailto:ponds@fwageast.org.uk)

## Great Crested Newt – Habitat Delivery Project

### Pond specifications

#### Pond creation

Ponds will be created/restored to achieve the following characteristics:

- Surface area between 150m<sup>2</sup> and 1,000m<sup>2</sup>
- Maximum central depth of 1m – 2.5m
- Variable bank gradients of between 1:10 – 1:20
- A range of depths across the pond
- Occasional drying out is not a problem, however the pond must hold water throughout at least one summer in every three years
- Substantial cover of submerged and marginal vegetation (about 66% submerged plant cover and 25% to 50% emergent/floating vegetation cover)
- Areas of open water to facilitate courtship behaviour
- Located in areas of good quality terrestrial habitat
- Terrestrial buffer zone of at least 3m around each pond. This increases to a minimum of 10m where habitat is less than ideal.
- Abundance of invertebrate prey
- Ponds in clusters (within 250m generally), rather than in isolation
- Absence of shading on the south side
- Absence of fish
- Absence or low density of waterfowl
- Good water quality, with negligible run-off from agriculture and roads

#### Pond restoration

##### Selecting ponds for restoration

Overgrown and silted-up ponds that are no longer suitable for great crested newts are eligible to be restored. Ponds eligible for restoration must:

- NOT currently be suitable to support great crested newts
- Be either overgrown with scrub and trees or be entirely dominated by plants such as reedmace and common reed with no or minimal water
- Have a base of thick black anaerobic sediment covered by no or minimal water
- Be located close to existing suitable terrestrial habitat
- NOT be fed by pipes and ditches that drain arable fields. Spring-fed ponds with no inflows, or ponds that drain non-improved meadow land or woodland are ideal.
- NOT support highly valuable trees or protected/priority habitats or species. If mature oak, ash or elm trees are present (particularly on the southern and western banks of the pond) the pond is unlikely to be suitable for restoration.
- NOT support invasive non-native species

Ponds should be restored so as to meet the criteria described in the 'Pond creation' section, above.

#### Tree and scrub removal

- Trees and scrub should be cleared from the south and west sides of the pond, with some tree and scrub cover left to the north and east. Exceptions should be made to this rule where this approach would damage existing high-quality habitats. Mature oaks and other valuable trees and important plants should not be removed.
- Do not pull out tree stumps embedded in the slopes that make up the banks of the pond.
- Do not remove all trees and scrub from the pond; it is desirable to leave some patches of scrub such as bramble, which provides good cover and foraging habitat next to ponds.
- The use of herbicides to control aquatic plants and bankside vegetation will only be allowed in exceptional circumstances and with prior approval.
- Piles of brash and large cut wood pieces should be retained on site to provide cover and over-wintering habitat for amphibians.

#### Sediment removal

- Removal of sediment is necessary if the pond bed is dominated by organic sediments (e.g. rotting leaves) making it inhospitable to aquatic plants.
- Sediment can be removed using a tracked 360 excavator or similar. Aim to remove sediment from at least 1/3 to 2/3 of the pond's area.
- Avoid removal of underlying clay and do not cut deeper into the bed or the banks of the pond, or change the natural dimensions of the pond.
- Excavated surfaces should be left rough, which improves plant colonisation.
- The ideal place to put sediment is on a nearby field where it can subsequently be spread (but will not lead to nutrient enrichment/sedimentation of the pond). Dredgings and spoil must not be used to fill in or level adjacent wet areas or be placed on top of any areas of archaeological or ecological importance such as agri-environment margins, or wildflower-rich areas. Before disposing of silt excavated from ponds, please refer to 'Waste exemption: U10 spreading waste to benefit agricultural land' on the [www.gov.uk](http://www.gov.uk) website.

#### Buffer zones (for both pond creation and restoration)

Terrestrial buffer zones of at least 3m are required around created and restored ponds. In addition, suitable habitat such as woodland, hedgerows or rough grassland must be present within close proximity (approximately 50m) to ponds. Connectivity features (e.g. wide, intact hedgerows, grass margins) must be present between the pond and suitable habitat to allow great crested newts to move freely and safely through the landscape.

The buffer must be expanded where there is a risk of nutrient runoff and/or where a larger buffer is required to provide habitat features not present in close proximity to the pond. Where not directly adjacent to suitable habitat, an additional grass margin (at least 10m) should be allowed to establish around the pond and should connect to other habitat features (hedgerows etc.).

A mosaic of habitats should be allowed to develop within the buffer around ponds, including a proportion of scrub and diverse grassland with tall grasses.

Buffer zones will:

- i) Ensure suitable terrestrial habitat surrounds every pond (to increase the suitability of each pond for newts and encourage colonisation);
- ii) Buffer and reduce nutrient runoff to each pond (an important consideration, especially where ponds are sited within arable farmland);
- iii) Be expected to contain at least two newt hibernacula (overwintering refuges) comprising combinations of piles of uncontaminated rubble, rocks, stones, logs, loose soil and pond arisings.

Buffer zones must be fenced if ponds are in areas subject to:

- i) Heavy grazing (to avoid the impacts of uncontrolled grazing or poaching by livestock). Light grazing is acceptable and can be the optimum management for great crested newt ponds;
- ii) Public access or likely impacts by dogs; or
- iii) Potential encroachment from agricultural practices.

Example of hibernacula:

Fig. 8 Great crested newt refuges on (A) impermeable and (B) free-draining soils

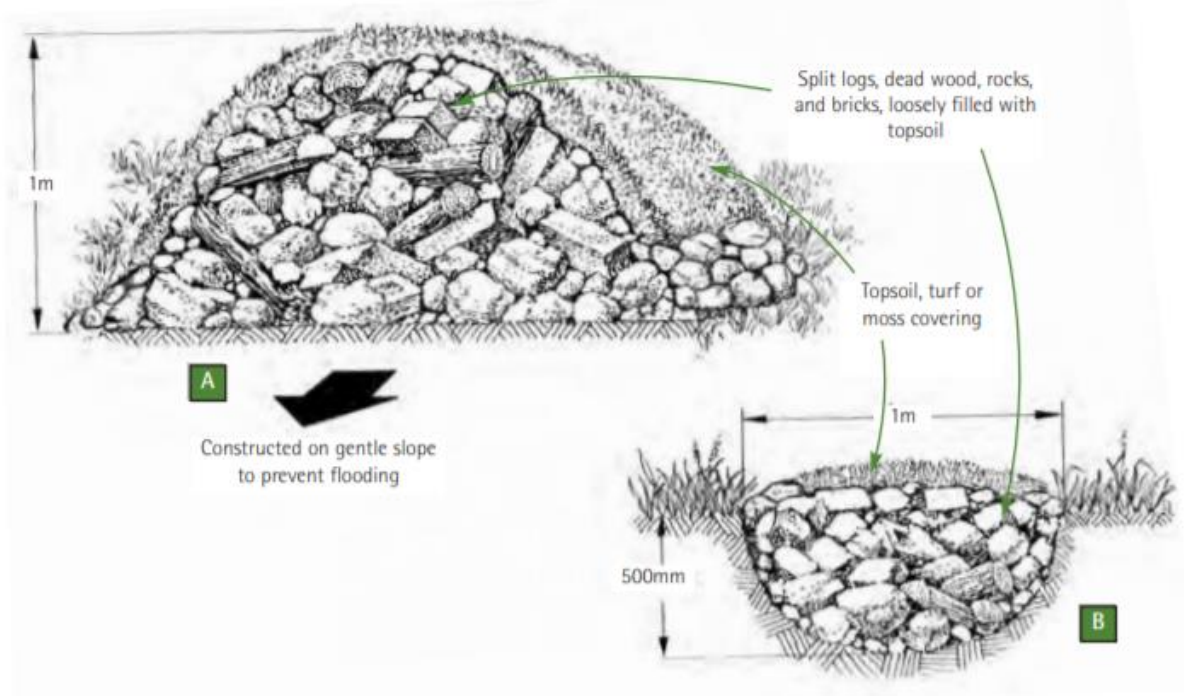


Diagram source: Great Crested Newt Conservation Handbook (Froglife): [https://www.froglife.org/wp-content/uploads/2013/06/GCN-Conservation-Handbook\\_compressed.pdf](https://www.froglife.org/wp-content/uploads/2013/06/GCN-Conservation-Handbook_compressed.pdf)