ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE

NET BENEFIT FOR BIODIVERSITY

MAELOR NURSERIES

Project name: **MAELOR NURSERIES**

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1 BACKGROUND

Planning consent has been granted for the erection of a series of polytunnels covering existing, cultivated tree nursery beds at Maelor Nurseries.

The proposed siting of the polytunnels could have ecological implications for trees and hedgerows, along with certain protected species including bats, breeding birds and great crested newts.

A preliminary ecological assessment identified three ponds within 250 metres of the site, one of which appeared to have potential to support great crested newts. eDNA analysis was carried out on a water sample from the pond and this proved 'positive'.

An Amphibian Conservation Plan has been agreed and an independent body (ARG) has been engaged to oversee the management of this area.

A request has been made as Condition (!!) of the planning consent that a plan is prepared for Net Benefit to Biodiversity.

This document summarises the measures agreed to fulfill the requirements of NBB>

2 NET BENEFIT FOR BIODIVERSITY

2.1 Creation of wildlife ponds

Three new small ponds will be created within 50 metres of the existing pond. These will occupy areas of currently bare ground which do not offer shelter or hibernating opportunities. The three areas will have vegetation removed by herbicide and cutting in the summer preceding the construction of ponds. This will reduce the attractiveness of the three areas to GCN. The pond construction will be carried out between November and February when GCN are not active and will be hibernating in suitable habitat elsewhere on site.

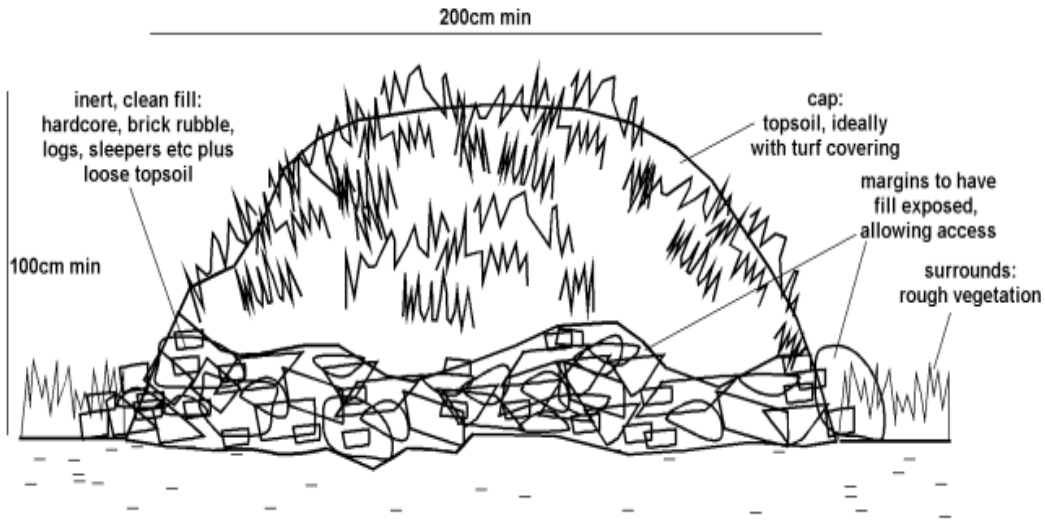
The new ponds will be irregular in shape in order to create diversity around the margins. The overall surface area will be at least 100m^2 and each pond will be securely fenced for safety and conservation reasons. Natural regeneration will rapidly vegetate the margins of the pond. The location of the ponds is shown in Figure 2.

2.2 *Creation of amphibian hibernacula*

Three amphibian hibernacula will be created on site, one within 10m of each of the new ponds. The hibernacula will measure 2m long by 1m wide and be at least 1m high, to

Figure 3: Suggested hibernaculum design

This design mimics artificial and natural conditions in which great crested newts have frequently been found over-wintering. Dimensions should not be below 2m length x 1m width x 1m height. The illustrated design would be suitable for locating on an impermeable substrate. On free-draining substrates, the design is largely similar but the bulk of the fill is sited in an excavated depression in the ground. Hibernacula should ideally be positioned across a site, both close to and distant from breeding ponds, always in suitable terrestrial habitat and above the flood-line.



follow the 'Suggested hibernaculum design' within Figure 3 of the Great Crested Newt Mitigation Guidelines.

The base of the hibernacula will be constructed using hardcore, brick rubble, logs, rough timber and loose topsoil. There will be sufficient ground-level gaps between the materials to allow newts to enter from several locations. The hibernacula will be built up in layers and overlaid with topsoil and a final layer of turf.

2.3 Hedgerow planting

A new mixed native hedgerow will be planted to the north of the proposed development.

A further species-rich native hedgerow will be planted to define the eastern and southern extent of the Conservation area. Species will include hawthorn, blackthorn, hazel. field maple, holly, dogwood and guelder rose planted in a double row with 6 plants per metre. After 5 years growth, or sooner if necessary, the hedge will be cut to maintain a height of 2 metres.

2.4 Mixed native shrub planting

A 20 metre wide belt of native shrubs will be planted between the new hedgerow and an existing hedgerow. Species will include dogwood, guelder rose, hawthorn, wild privet, dog rose and hazel.

2.5 Creation of GCN Conservation Area

The area of rough grassland and scrub surrounding Pond 2 and amounting to approximately 2.5 ha, will be designated as a GCN Conservation Area. A Management Plan for the long-term management of this area is set out below. The area was hitherto unmanaged except for periodic mowing. Its positive management for biodiversity represents a significant benefit for biodiversity.

Figure One Proposed Site Plan with NBB features identified

