IDB Biodiversity Action Plan Guidance Note:

Pond Creation

Ponds are important elements of the landscape, for biodiversity, heritage and the community. Approximately two thirds of Britain's freshwater plants and animals can be found somewhere in permanent and temporary ponds.

Ponds can be defined as man-made or natural waterbodies between 1m^2 and 2ha in area, which hold water for at least 4 months of the year. In the UK, it is estimated that over 75% of ponds that existed at the beginning of the 20th century have been lost. Now that there are so few opportunities for ponds to form naturally in our drained and extensively managed landscape, the creation of ponds can make an important contribution to biodiversity

Where to Locate New Ponds

To minimise pollution issues, the water source of a pond should:

- Avoid inflows which are frequently polluted (ponds do not need a constant flow of water to maintain their oxygen levels)
- Try to ensure that surface run-off drains from 'clean' land (i.e. no fertilisers, pesticides, or disturbed ground)
- Avoid urban run-off
- Quality is more important than quantity. It is better to have a shallow/seasonal pool with clean water than a deep polluted pond

If possible new ponds should be located near existing wetlands to create an interconnected mosaic of habitats. However, a survey should be undertaken before a pond is created to ensure that habitat already of value not destroyed (e.g. marsh, swamp)

Before digging a new pond trial holes should be dug to determine where groundwater levels are and what soil conditions are like.

Legal Issues

If a pond is for non-agricultural use (e.g. wildlife, fishing, amenity), planning permission may be needed – advice should be sought from the Local Authority.

If water is to be taken from, or discharged to a stream, river or groundwater, approval from the Environment Agency may be needed. Issues relating to fish may also need Environment Agency consent. Consultation with them should be undertaken.

Other issues may arise involving Scheduled Monuments or Public Rights of Way, and if necessary the appropriate organisations should be consulted.

For further information please contact:

Shire Group of IDBs, Chase Park, Redhouse Interchange, Doncaster, DN6 7FE. 01302 337798.
info@shiregroup-idbs.gov.uk

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Planting-up of Ponds

Plants and animals can rapidly colonise new ponds and planting-up ponds should be avoided unless it is needed for 'non-conservation reasons' (e.g. amenity ponds in urban locations)

Only plant ponds with native plants of local provenance. Collecting plants from nearby wetland areas is one way to ensure this (need landowner permission). Be wary of purchasing plants from garden centres, as stock may be non-native or a cultivar. Advice should be sought on which species are likely to be most appropriate, and which species to avoid.

Most native marginal and floating-leaved species are robust and can be planted at any time of the year. Planting of submerged species is often unsuccessful, but these do tend to colonise naturally.

A planting density of 4 – 5 plants per square metre will give a good dense sward in 2 years. Some management may be required soon after construction to ensure that rapidly growing species (e.g. Reedmace) do not dominate the pond.

Useful Link

http://www.freshwaterhabitats.org.uk/projects/million-ponds/pond-creation-toolkit/

Design Principles

If possible a pond complex, of ponds of varying types, should be created rather than a single pond. Even small schemes can create pond complexes, with some ponds a few metres across and others smaller.

Try to include a broad drawdown zone around the pond margins, which provides mud and marsh habitat in summer. These areas can have high ecological value. They should slope gently (i.e. less than 1:5 and ideally less than 1:20). They do not need to slope evenly; hummocks and depressions add value.

Deep water areas (1-2m+) are not essential, but can be useful for fish, bird and submerged plant species.

Aim to include areas of varying depth, including shallow pools of less than 20cm depth and also temporary pools which periodically dry out.

Islands can be valuable, providing a different habitat. They provide safe roosting and nesting areas for birds. They should be at least 4-5m from the ponds margin and surrounded by water at least 1m deep to provide the most protection from predators.

Ponds created in naturally water retaining soils (e.g. groundwater bearing gravels or naturally impermeable soils) are easier and cheaper to create. Advice should be sought if artificial liners are to be used (e.g. plastic/ rubber, clay, bentonite, concrete).

Before beginning the project the issue of spoil disposal needs to be carefully considered. There are several options; (1) spreading (3 – 4m from the pond margin); (2) creation of a low barrier to prevent polluted surface water entering the new pond; (3) creation of a landscaped mound; or (4) infilling of depressions (only where no wildlife or historical interest).

Try to include a 'buffer zone' of rough grassland, woodland or scrub around a pond to provide seasonal habitat.

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