

ADVICE AND INFORMATION POND CONSERVATION

01865 483249 www.pondconservation.org.uk

Pond Conservation is the national charity dedicated to creating and protecting ponds and the wildlife they support. They can provide expert guidance on pond creation.

BTCV

01302 572 200 www.btcv.org

BTCV support environmental volunteers, providing training and conservation guidance notes. An extremely useful range of online handbooks is provided on their website

FLORALocale

01672 515 723 www.floralocale.org

Flora locale is a registered charity that encourages, across Britain and Ireland, the wise use of wild plants for planting schemes that have wildlife in mind. They provide guidance on selecting locally native species and where they can be sourced.

RECOMMENDED READING

The Pond Book: A Guide to Management and Creation of Ponds. P Williams (1999) ISBN-10: 0953797104

Gardening for Wildlife. George Pilkington (2002) ISBN 1 873727 12 7

Waterways & Wetlands. Elizabeth Agate & Alan Brooks (BTCV)
ISBN 0 9501643 8 0

BTCV Handbooks (Waterways & Wetlands) are also available online at:
<http://handbooks.btcv.org.uk/handbooks/index/book>

MORE FROM THE MERSEY FOREST

For more free guides, call The Mersey Forest Team on 01925 816 217 or visit www.merseyforest.org.uk to find out more and get involved.

HOW TO CREATE A WILDLIFE POND

The Mersey Forest guide



CHOOSING A LOCATION FOR YOUR POND

Think about these issues when considering where to site your new pond:

ACCESS: Site your pond where it will be easily accessible for construction, future intended use (e.g. access for children), and for future management.

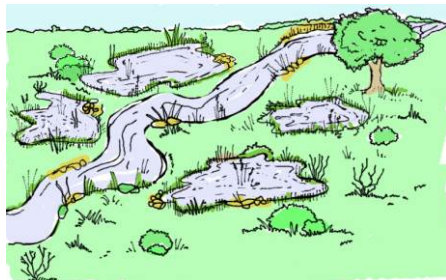
SHELTER/SHADE: Site your pond where it is sheltered from windy or frosty conditions (e.g. protected by vegetation or below a raised landform). Try to position the pond where it will get at least half a day of full sun. Avoid positioning the pond directly under large trees which will overshadow it and drop leaf litter, which could cause a build up of nutrients leading to algal blooms.

TOPOGRAPHY: Locate your pond on lower ground where water levels are higher, although you must take care not to damage existing wetland habitats.

WATER QUALITY: Ensure the pond will not be polluted by contaminated water from streams, ditches, surface run-off from roads or car parks, or surface run-off from land contaminated with fertilisers or pesticides.

ECOLOGICAL DIVERSITY: Where possible, create new ponds within close proximity to existing wetlands or waterbodies to increase the rate of colonisation by natural species.

Ensure works are not undertaken where they might disturb breeding birds or wetland invertebrates or amphibians.



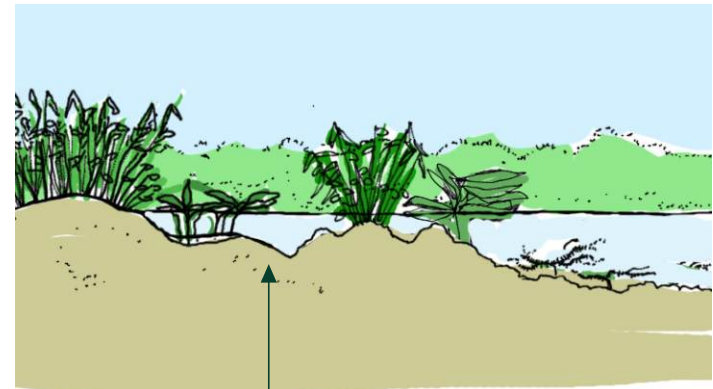
Ponds created close to existing waterbodies will quickly colonize with plants and wildlife

PLANNING THE SHAPE, SIZE AND DEPTH OF YOUR POND

SIZE: The size of your pond will largely depend on the ground conditions and amount of space that you have.

SHAPE: To attract as much wildlife as possible to your pond, think about creating a number of adjacent ponds of varying sizes and depths rather than a single pond. You can increase wildlife habitat by creating an irregular shaped pond edge which helps to provide a variety of secluded, sheltered habitat areas.

DEPTH: Ponds don't have to be particularly deep to have ecological value. Ponds under 1m depth provide valuable wildlife habitats and the shallow edges often contain the greatest diversity of wildlife. Create wide shallow pond edges with irregular depths to establish wetland habitats, some of which will dry out in summer.



Wide pond edges of varying depths will help to create a variety of valuable wildlife habitats

Remember - areas of exposed bare mud provide a haven for wildlife. Ponds which dry out some of the time can be very rich in plant and animal life, particularly amphibians and invertebrates. The occasional drought also gets rid of fish which are a major predator of insects and amphibians.

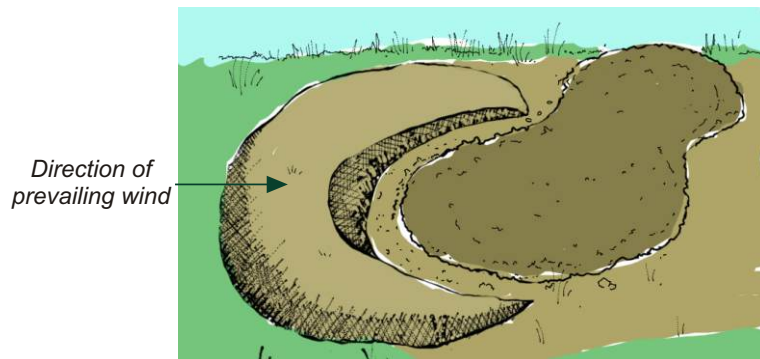
CONSTRUCTING YOUR POND

TIMING

Although ponds could be constructed at any time of year it is best to create them in winter and spring, so that they have the summer to get established. Make sure the works will not disturb any existing wildlife habitat and that the ground conditions are suitable for accessing the site with machinery.

EXCAVATING THE POND

When excavating your pond store the excavated turfs, topsoil (the top 8-10" of soil) and subsoil (below 10" deep) in separate piles for later use. You can use the excavated topsoil to build a naturalistic mound near to the pond. By building the earth mound on the side of the prevailing wind you can increase shelter of your pond. The excavated turfs can then be laid over the topsoil mound.



Excavated spoil can be used to create a mound sheltering the pond from prevailing winds.

LINING THE POND

If your site is on clay-ey, wet ground you may not need to line the pond. Dig a couple of test holes and monitor them through the summer to ensure they retain water.

If the site is not naturally wet, a pond liner may be required. 'Pond Conservation' can provide further guidance on how to line your pond with either a liner or a layer of compacted clay (see contact details at the end of this leaflet).

Cover the liner or compacted clay with a layer of the excavated subsoil to allow aquatic plants to establish. Make sure topsoil is not used near the pond as it is highly fertile and could cause algal blooms.

SELECTING POND PLANTS

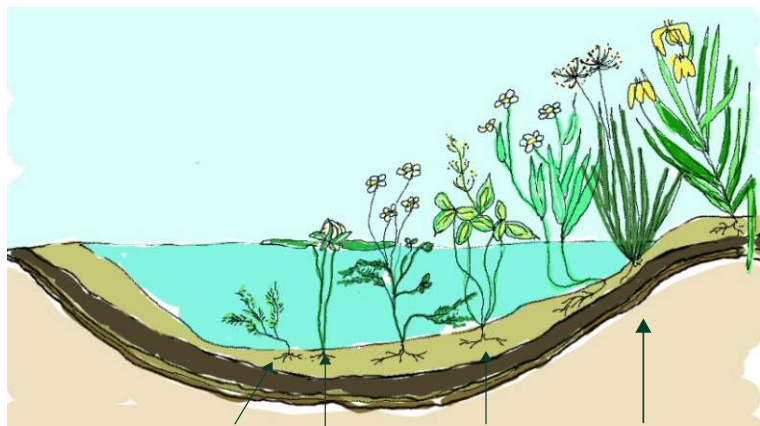
It is not essential to plant up a new pond as aquatic plants will naturally colonize the site over time.

If you do choose to plant the pond, make sure only locally native species are used as non natives may cause future management issues. Contact 'Flora Locale' for details of native species and suppliers. Avoid planting particularly vigorous species such as Duckweed, Water Fern, Common Reed, Greater Reedmace, Marestalk, Unbranched Burreed which will quickly out-compete other pond species.

Select a mixture of fringing/marsh plants (planted just above the water's edge), emergent plants (planted in water less than 25cm deep), floating leaved plants (planted in soil 30cm or more under water), and submerged/oxygenating plants (roots weighted down and thrown into water less than 1m deep).

BTCV's online handbooks provide a useful list of recommended marginal, emergent, floating leaved and submergent plants.

The best time to plant is between May and September, preferably May/June.



Submerged/
oxygenating
plants Floating
leaved
plants Emergent
plants Fringing
/marginal
plants

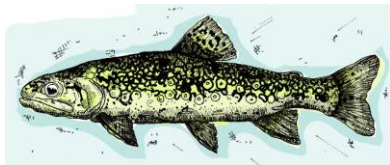
Sectional view of a pond showing marginal, emergent, floating leaved and submerged plant zones

SPACING POND PLANTS

Most plants can be planted at approximately 30cm spacings. As a rough guide, a 3m² pond might contain 15 submerged/oxygenating plants, 2 floating leaved plants and 6 emergents plants. A pond of 10m² should be planted with approximately 45 submerged/oxygenating plants, 3 floating leaved plants and 15 emergent plants.

POND WILDLIFE

There is no need to introduce species to the pond as they will inhabit the area naturally once the vegetation has established.



Fish are not suitable for wildlife ponds as they feed on frog and newt spawn and aquatic insects, greatly reducing the overall wildlife value of the pond.

SURROUNDING VEGETATION

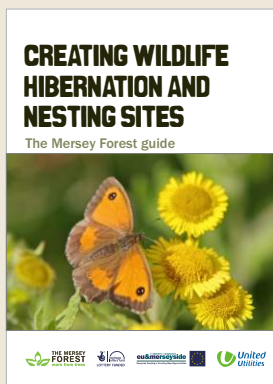
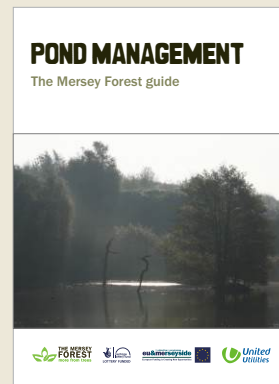
Try to keep long grass around the pond to act as a wildlife refuge and link the pond with surrounding habitats. A tall fringe of marginal and emergent plants surrounding a pond will provide shelter for nesting and habitats for aquatic insects.

A pile of logs or rocks near to a pond will provide shelter and hibernation sites for amphibian as well as insects. A separate guide, 'Creation of Wildlife Nesting and Hibernation sites' provides further information on this topic.

Encourage growth of shrub and tree vegetation around the northern edges of the pond, rather than the southern edges which will create excessive levels of shade.



The Mersey Forest guidance sheet 'How to manage ponds' provides information about managing the vegetation around ponds.



MORE 'HOW TO' GUIDES

If you found this guide useful you may be interested in further guides in The Mersey Forest's 'How to' series.

ONLINE

Online pdf versions can be found at www.merseyforest.org.uk which can be read on-screen, downloaded to your computer or printed off.

HARD COPY

The guides are also available as printed booklets, free to members of the public and community groups in Merseyside and North Cheshire.

To request copies of one or more of the guides, please contact The Mersey Forest Team and let us know which guides you would like.

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FREE!