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

FLORA LOCALE

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.

THE NON NATIVE SPECIES SECRETARIAT (NNSS)

Provides fact sheets with useful information about the identification and control of non native species
http://www.nonnativespecies.org/01_Fact_File/index

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 area 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.

POND MANAGEMENT

The Mersey Forest guide

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United Utilities

INTRODUCTION

Ponds do not require much management other than clearing out any litter or debris, and checking the pond for contamination of pollutants or invasive species.

Don't feel you have to actively manage your pond in order to retain their ecological value. Newly established ponds, mature overgrown ponds and temporary ponds that dry out in mid-late summer all provide important habitats.

With any pond management works, act cautiously and think about the existing wildlife value of a pond before starting work. If you are carrying out work to a pond, try to do it gradually over a long period of time rather than making sudden changes to the pond or surrounding vegetation.

HOW TO CONTROL ALGAL BLOOMS
Algal growth is not necessarily always a problem. For example, management is not necessary if your pond only contains small amounts of algae or duckweed. This is natural in clean water and provides habitat for a variety of species.

If algal growth occurs following disturbance of the soil (i.e. after dredging operations), this is probably only a temporary occurrence and may clear. Algal growth is caused by a release of nutrients during soil disturbance and should reduce naturally over time.

Algal blooms are more likely to need managing where they occur in older, undisturbed ponds. The problem is caused when dense growth of floating plants prevents light and oxygen getting into the water. This is likely to be caused by high nutrient levels in the pond. Ideally to control algal blooms, you need to remove the source of nutrients getting into the water. If this is not possible consider the following two options.

REMOVAL BY HAND
Blanket weed can be removed by raking or winding it around a stick. Regular removal of floating plants should gradually reduce the amount of nutrients in the pond.
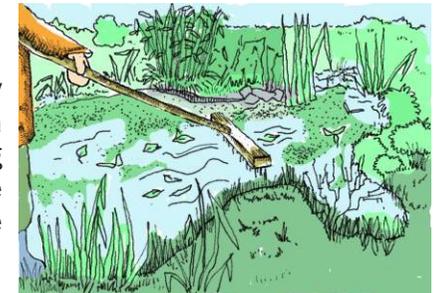

TREATING WITH BARLEY STRAW
Barley straw can be used to treat algal blooms. As the straw breaks down, chemicals are released which act as a natural herbicide to kill the algae.

Barley straw is most effective if applied twice a year, preferably in early spring before algal growth begins and again in autumn.

To treat algal blooms with barley straw, loosely stuff the straw into a net bag or simply bundle it together with string. The straw works best if it is held near to the surface where water movement is greatest and increases distribution of the anti-algal chemical. To keep the straw at this depth suppliers recommend tying the straw to a float (e.g. polystyrene or small plastic bottles with well-fitting screw tops) so that it does not sink to more than one metre below the surface, even when waterlogged. If the water is flowing, you may also need to anchor the straw to the bottom with a stone.
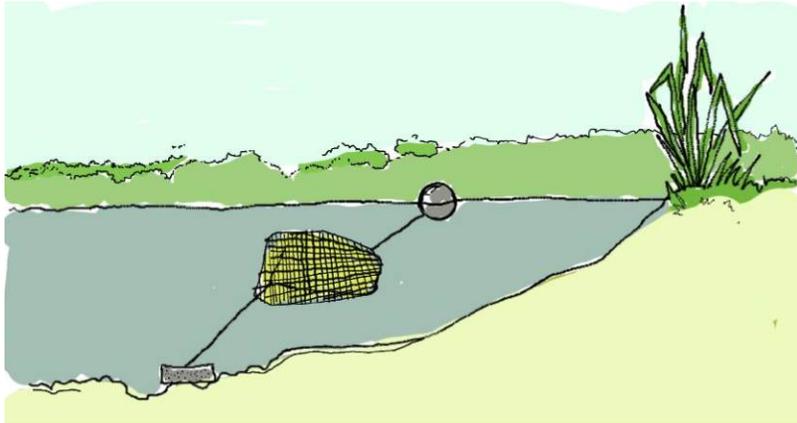

Barley straw anchored in place with an appropriate weight and tied to a float to keep it near to the water surface

To treat the algal bloom effectively you may need to apply barley straw a number of times. Suppliers will advise how much straw you need per m^2 of surface water, but you should estimate on needing approximately 10g straw/m^2. In a small pond only a few grams will be needed.

Rotting tree bark can be just as good as barley straw at getting rid of algae which is a good reason for leaving some fallen branches in the water.

CONTROLLING GROWTH OF NON—NATIVE SPECIES

Invasive non-native plants (e.g. species such as Parrots Feather, Water Fern, Floating Pennywort and New Zealand Stonecrop) spread rapidly, preventing growth of other pond plants.
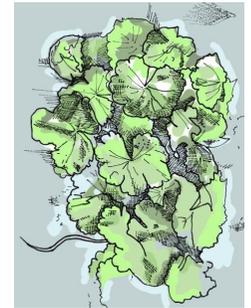
If non-native species have become established in your pond, you will need to try and eradicate them completely, either by mechanical control (cutting, pulling or raking), environmental control (shading out problem plants) or chemical control (use of glyphosate).

Remember-the use of glyphosate on or near to waterbodies requires prior approval from the Environment Agency.

MANAGING GROWTH OF NATIVE AQUATIC PLANTS

Pond plants provide essential habitats for a wide variety of wildlife and should not be disturbed if at all possible.
Vegetation may have to be partially removed where single species are extending across the entire water surface. If so, try to follow these guidelines to avoid disturbance of wildlife habitats:

- Only remove a third of the vegetation in one year
- Remove a section of vegetation from both deep and shallow water, rather than removing all vegetation from deep water
- Place cleared vegetation on the bank, close to the water for 24hrs to allow trapped wildlife to escape back into the water.
- Carry out removal of pond plants in September (with the exception of duckweed, which should be carried out in spring to prevent dense growth occurring during summer months.)

Ideal techniques for removal of vegetation include:

☆ Thinning/removing marginal plants by hand pulling wherever possible rather than digging
☆ Removing submerged plants by dragging a rake across the water surface or winding it round a stick
☆ Removing duckweed using long handled nets

MANAGING WATERSIDE VEGETATION

Try to leave waterside vegetation undisturbed wherever possible. Although a dark wooded pond may not look particularly attractive, it may provide valuable wildlife habitat for specific species. Partial shade of a pond can also help to reduce the growth of invasive species.

Waterside vegetation provides habitat and shelter for wildlife to access the pond safely. Rotting deadwood and leaf litter within ponds are also important for amphibians and invertebrates.
If it is essential to clear waterside vegetation or dead wood within ponds (e.g. for health and safety reasons), consider the following recommendations to reduce the wildlife impact of your work.

☆ Instead of clearing vegetation altogether consider coppicing (cut back to 10cm above ground level) or pollarding (cut to 3-5m high) waterside trees.
☆ Where possible, retain vegetation on the northern perimeters of the pond and clear only the southern edges.
☆ Clear only a small section of vegetation at a time. One option is to divide the perimeter of the pond into sections, and coppice each section on annual rotation.
☆ Only ever carry out vegetation clearance during the winter months (November – March).

DE—SILTING PONDS

It is best to avoid de-silting ponds if at all possible, to prevent disturbance of valuable habitats and plant communities which have developed over time. If you want to create areas of open water think about creating a new pond instead.

If de-silting works are essential (i.e. to prevent flooding), take care to ensure minimal impact on the existing wetland habitats. Try to carry out works in the winter months when it will not affect breeding amphibians, birds, emerging insects and other pond animals.
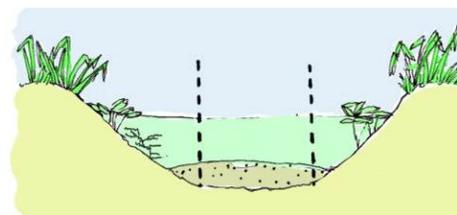
De-silt centre channel of waterbody only

Where possible excavate material from the centre of the pond leaving species rich shallow margins of the pond untouched and only remove half of the silt from the pond.

For small ponds it may be possible to drain the pond and remove the silt with a bucket whilst for deeper ponds mechanical removal may be necessary.

It is important to know what is in the silt before you remove it as this will determine how it can be disposed of. Contaminated silt may have to go to landfill. If there is a chance it is polluted, you should get it analysed by a professional organisation. Further advice on this can be sought from the Environment Agency.

Clean silt can be spread evenly on land near to the pond, in locations where it won't cause damage to other habitats or get washed back into the pond where it could lead to algal blooms.

Silt provides an excellent soil improver and fertiliser which could be spread on your flowers bed or vegetable plot.

MORE 'HOW TO' GUIDES

HOW TO PLANT AND MAINTAIN HEDGEROWS
The Mersey Forest guide

HOW TO PLANT AND CARE FOR TREES
The Mersey Forest guide

HOW TO CREATE A WILDLIFE POND
The Mersey Forest guide

POND MANAGEMENT
The Mersey Forest guide

CREATING WILDLIFE HIBERNATION AND NESTING SITES
The Mersey Forest guide
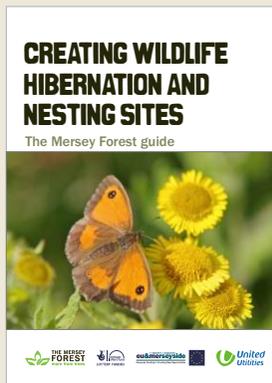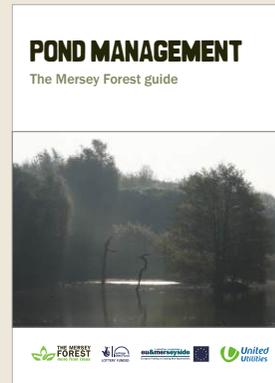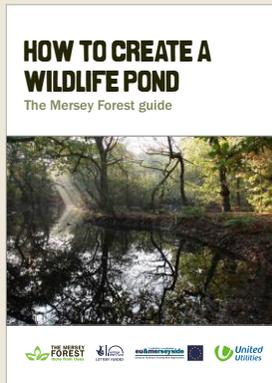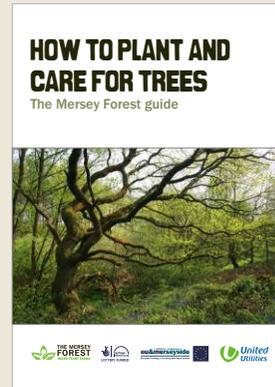
If you found this guide useful you may be interested in further guides in The Mersey Forest's 'How to' series.

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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