

# FACT SHEET 5

## Ponds



**Ponds can support a wide range of species from dragonflies and amphibians to birds and even small mammals, however they are a declining habitat in the countryside and looking after an existing pond or building a new one is a very worthwhile task.**

It is important to know what is already living in an existing pond. Visiting in the spring should help you to see if there are frogs or toads present as their spawn will be visible, whilst summer visits will be the time to see dragonflies and damselflies using the pond. Try to visit in the evening if you can and if it is safe to, you may spot bats hunting for insects over the water.

If you find (or suspect) you have Great crested newts using your pond, you must get an appropriate licence before undertaking any work. It is an offence to kill, injure, disturb or handle this species without one. Contact the Gloucestershire Centre for Environmental Records to see if there are any records of newts in the pond.

### WHAT TO DO NEXT? —————

Managing an existing pond can be complicated but the following advice should help to get you started. It is important that ponds have some areas of open water, some emergent vegetation which is plants with roots in the water but stem and flowers above the water, some aquatic plants which are those that grow entirely in the water, and some bank-side plants ensuring there is habitat on drier ground adjacent to the water.

Often ponds which have not been looked after are overgrown by plants and there is little water visible. When trying to restore an overgrown pond you should not try to do all the work in one year. It is better to spread the restoration over 2 or 3 years, undertaking around a third of the work each year, not only does this make it a more manageable project it is also much better for the wildlife living in the pond.

For example if you need to clear out plants which have spread then try cutting back a third of the plants in the first year, this could be done by cutting, digging or raking, (be careful not to damage the lining of your pond). The vegetation should eventually be removed from the pond to a compost heap, but should be left next to the water for at least 24 hours to allow creatures caught up in it to return to the water.

Bank-side vegetation and over hanging trees will also need work. Too many leaves falling into the water can cause a pond to silt up and as they decay can contribute to algal blooms. In addition the shade cast by trees can prevent water plants from growing. Willow and alder are frequently found next to water and both will respond well to either coppicing or pollarding (the later is best done by an expert), thus rejuvenating both the pond and the tree.

If your pond is full of silt and looking polluted with algal blooms, or scum on the surface then it may need dredging. Small ponds can be done by hand, whilst larger ones may need a mechanical digger. Again you should aim to remove around a half to a third of the silt in any one year, leaving some behind to 'restock' the pond.

If your pond appears polluted by an outside source, try to identify and rectify the problem before undertaking any work.

The best time to do work on your pond is late in the year, from September onwards, but before January. This is because the breeding season for most creatures is over and the plants will have flowered and will be beginning to die back.

## WHERE TO CREATE A NEW POND?

Creating a new pond for wildlife may be challenging but it will provide a great habitat for many species. However, it is important to make sure that the pond is created in the right place. You should avoid very shady places and try to find somewhere that gets sun for most of the day. If possible try to avoid overhanging trees as rotting leaves are not good for pond life and make sure that you are not digging near to underground services such as gas or electricity lines. There are restrictions on creating ponds in flood plains and near rivers, so always check with your local planning department. Always get professional guidance if you are unsure.

## HOW BIG SHOULD IT BE?

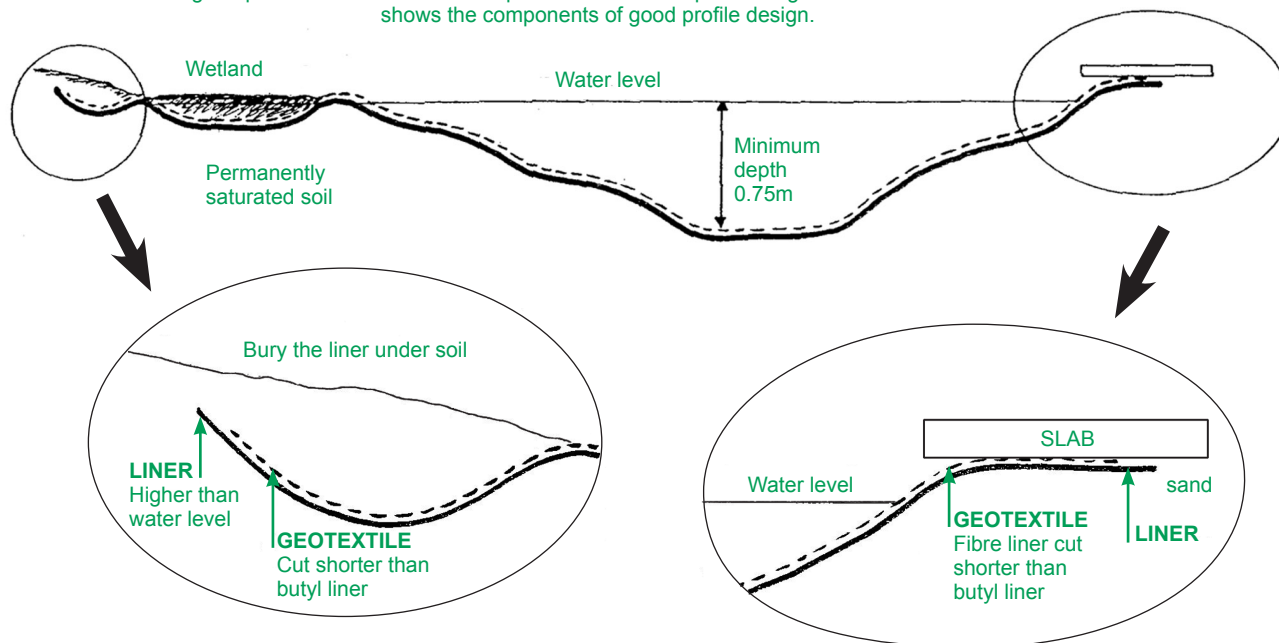
Once you have decided where to dig, mark out the area, the larger the pond the better, 6 x 8 metres is a good size and it needs to be 1 metre deep in the centre. It should have shallow sloping edges, so that animals can get in and out easily, and larger mammals can use it to drink, and an irregular shape will give a more natural appearance. Before you start digging make sure you know what you are going to do with the soil that is dug out. If you are digging in a grassy site, keep some turfs to edge the pond once it's finished, cut the turf off in short strips and make sure that it doesn't dry out whilst the pond is being dug.

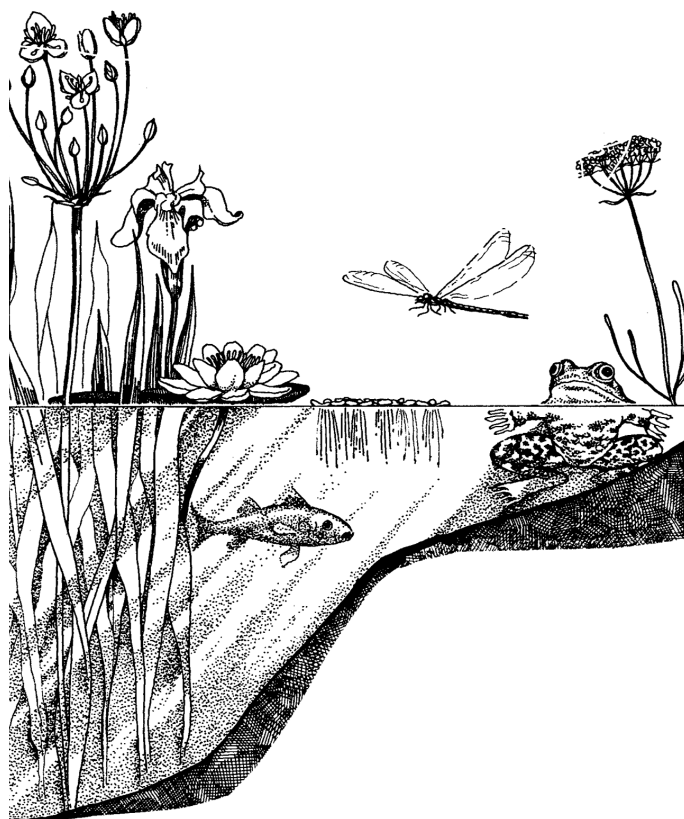
## DIGGING THE POND

Digging a large pond on an uneven site can be complicated and you may need professional help. However, with a few willing helpers a small-medium sized pond is relatively easy and the following are some general guidelines to follow:

- The hole needs to be larger than the design to allow for the liner and a protective layer, in addition there needs to be a trench around the edge to bury the liner.
- The pond can be lined with a flexible liner, either Polythene, PVC or butyl rubber.
- Compact the soil and remove any large stones or sharp objects
- A protective layer should cover the area; either old carpet or thick newspaper or cardboard would do
- Position the liner over the hole and let its own weight sink it into the hole. Try to smooth out the liner so that it sits well in the hole and the edges are well over the edge of the pond.
- Cover the liner with a little sub-soil and sand which gives your liner some protection from the sunlight and provides a rough surface for plants to attach to.
- Fill the pond with water and allow a little while for the liner to settle, then secure the liner in the trench around the edge with soil and place the turf back over the top.
- Leave your pond for a week or more to allow the liner to settle and any chlorine in the water to dissipate.

A good profile is one of the most important elements of pond design. The illustration below shows the components of good profile design.





## PLANTING THE POND

Whilst you could allow nature to populate your pond this is likely to take a while and it may need a helping hand. If there are ponds nearby ask the owners if they have any spare pond plants.

Make sure that you are only planting native species – there are some very invasive non native pond plants which will out-compete most other species and cause trouble for your pond life. Different plants require different amounts of water, so choose a selection from the list shown.

### Plants for deep water

HORNWORT  
 WATER CROWFOOT  
 COMMON WATER STARWORT  
 SPIKED WATER MILFOIL  
 WHITE OR YELLOW WATER LILY

### Plants for the shallows

WATER FORGET ME NOT  
 WATER MINT  
 BROOKLIME  
 YELLOW FLAG IRIS  
 FLOWERING RUSH  
 WATER PLANTAIN

### Plants for the edges

MEADOW SWEET  
 PURPLE LOOSESTRIFE  
 LADIES SMOCK  
 MARSH MARIGOLD  
 RUSHES OR SEDGES

DON'T plant Canadian pond weed – it will take over

If there are other ponds nearby then you should find that pond life arrives on its own, but you could always collect a bucket of water and silty mud from a nearby pond – with the owners' permission, to get yours started. But it is important that you make sure that the 'donor' pond is clean and does not contain any invasive or non native species.

## FURTHER READING

Pond Conservation have a series of fact sheets which give advice on creating or managing ponds for wildlife: [www.pondconservation.org.uk/](http://www.pondconservation.org.uk/)  
 The Pond Book, The Ponds Conservation Trust, 1999, ISBN 0953797104

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