

THREE PHASES OF POND CREATION

1. Gathering Information - Preparation

Ecological Status of Creation Site – Will the creation of a pond result in a nett loss for biodiversity? If YES, think again

Geology / Soils – Good place for pond? How hard is the digging? Does the site naturally retain water?

Hydrology – Where does the water come from? Where does it go? Is it clean? Is there enough or too much? Is the supply markedly seasonal? Do you need an artificial liner?

Measure Existing Ground Levels
Various methods.

Confirmation of Pond Location and Basin Size
After all of the above is the pond still in the best place and of the right size? Does the design still comply with any requirements for future management, access, etc?

Underground or Overhead Pipes and Services
Even the utility companies don't always know where their pipes and wires are. Take care when digging wherever you are.

Archaeology
Will the work damage any buried archaeology? Check local records?

Planning Permission?
There are lots of aspects of planning issues for new ponds – be aware!

2. Practical Stuff - Making the Pond

Remove Turf
Store both for later use elsewhere on site and/or use to landscape the pond site.

Dig Basin
The pond basin needs to be sufficient for required depth of water, back fill and liner / liner protection. Keep topsoil, sub-soil and/or underlying hard geology separate. Before digging actual basin some site preparation may be necessary. May need to top strip to create a level area and/or ensure basin is below current ground level to maximise the ponds catchment area. If you need to build up banks, or retaining walls make sure they are pre-compacted and/or you allow for settling out after the initial digging.

Check Dimensions and Levels
Once dug, check basin to ensure any required drainage from surrounding area will end up in pond and where any overflow water ends up (this can be a critical factor). Is the hole the right size and shape for the liner (if required)?

Check Hole for Sharp Objects

These may cause damage to the liner, clean hole out remove sharp objects to safe place.

Install Liner and Protective Layers

Underlay, liner and overlay. Underlay usually comes in fixed width rolls and ideally needs to be overlapped. Maximise value for money and use as much of liner as possible / necessary. Minimise trimming up and cutting. Rolling / folding spare material, rather than cutting, will enhance resistance to damage around pond edges.

Backfill Pond

Using sub-soil or similar nutrient poor material, cover whole of liner to provide better wildlife habitat and maximise protection of liner from damage. Avoid (rich) topsoil. Even proposed shallow marshy areas should be dug fairly deep and then backfilled to maximise the wetness of the mud during dry periods. Steep banks may be stabilised with stones, turfs etc. Allow for a depth of at least 10 cm. of backfill even in deeper inaccessible parts of pond and more (minimum 20 cm.) in shallower or marginal areas and perhaps 30 cm. in marshy areas. Spoil will settle in time and may need to be topped up later, or more than enough put in to accommodate for this settling. (In my experience there is never enough spoil left to do all the planned backfilling.

3. Follow Up Work

Planting Up

There is no need to plant ponds up at all, as even remote ponds will be colonised by plants in time. New ponds (without plants) provide a habitat for species not found in “older” vegetated ponds. However, the colonisation process may be very slow and/or undesirable species very likely to move in - or planting may be necessary for non-ecological reasons. Use local native plant species, from clean uncontaminated sources. You will not need many plants as most aquatic species grow fast once established. Planting can be phased, allowing time to see what colonises.

(Note: The same applies to animal colonisation as well. They will find their own way and there is no need to introduce them. Some will come in on plants if the pond is planted up. Many fly in. It advised not to move amphibians at any life stage.)

Monitoring

Keep an eye on the pond. Record water levels as it fills, are the levels right? If it does not fill have you damaged the liner (despite taking great care) or is the water supply inadequate? Bigger projects especially, may benefit from further work one or more years later to fine-tune water or other levels. Even simple basic records are of use and may help inform future management or pond creation.

... And finally – don’t forget to enjoy having the pond and what decides to live in it.

© Rod d’Ayala, November 2008 (Minor amendments June 2009)