

WHY BUILD A POND?

One of the best ways to attract wildlife to your backyard garden is by providing a regular supply of water. A water feature can be anything from a pan of water on the ground to a large pond with a waterfall and recycling stream. Like most gardening projects, your pond will evolve as you learn what works for you.

BIG OR SMALL?

Surface area and depth affect water temperature and the amount of light reaching submerged plants. Although large ponds (more than 4 or 5 m² surface area) are more stable and will support more wildlife, a smaller one is a better choice for most backyards. It will be easier for a beginner to establish, less expensive to build, and it can provide as much enjoyment to the gardener/nature lover. And you won't have to worry about municipal bylaws that require high fences around standing water bodies that are over a certain depth (in Ottawa, 60 cm or 24").

Most of the problems associated with small water volume – algae growth, overheating, and evaporation – can be overcome by placing your pond where it will be shaded in the middle of the day. Small ponds are great for wildlife: birds love to splash in only a few inches of water and butterflies will rest on a patch of damp sand to sip up minerals on the pond's sunny edge.

BASIC CONSTRUCTION

Mark the general form on the ground, using an oval or kidney shape as they look more natural than round. Make the pond bigger than you think you want it – it's amazing how quickly it will fill up after you add mud to the bottom and your water-loving plants start to grow in the water and around the edges.

Although stepped sides create a shelf for pots of plants or for attractive rocks, the toads, frogs, birds, and insects will find it easier to use your pond if the sides are gently sloped. Why not have the best of both worlds by making one side sloped, the other stepped?

Digging is hard work. To minimize excavation and avoid disturbing the roots of nearby trees and shrubs, you may want to use the soil you remove from the middle of the pond to build up the edges. Use a level

and a long straight piece of wood to check that the top edge of the final hollow is even all the way around.

To calculate how big the waterproof liner must be, measure the hollow carefully and allow at least an extra foot on all sides to prevent excessive water loss through seepage. Line the hollow with landscaping cloth first to prevent roots from puncturing the liner. Spread the liner out on top – 35-mil polyvinylchloride is a good buy.

There are experienced, reputable contractors who would be very happy to construct a pond to meet your requirements. Tours of water gardens, such as those organized by the Greater Ottawa Water Garden Horticultural Society, are great opportunities to get ideas and inspirations.

WATER QUALITY

Fill the pond slowly with water from the garden hose, smoothing out the liner as the water starts to hold it down. Let stand a few days before introducing plants or other wildlife to allow chlorine to dissipate.

Take advantage of the overflow from spring rain to establish plants along the edge of your pond. Even older ponds often experience an "algal bloom" in the spring. Sometimes, the algae will simply die as summer leaves start to provide more shade. If not, scoop it out and use it to fertilize your garden.



In mid-summer, the water level in a 3-m² pond may drop as much as 3 cm a day. You'll need a supply of water to top it up during dry spells. Either collect rain in a storage vat or fill a barrel with tap water and let it stand. Don't use water drained from a roof; chemicals from shingles may be toxic.

Water must contain dissolved oxygen to be "healthy" for water creatures. If the pond is very small, submerged plants may supply all you need. Larger ponds may need a recirculating pump.

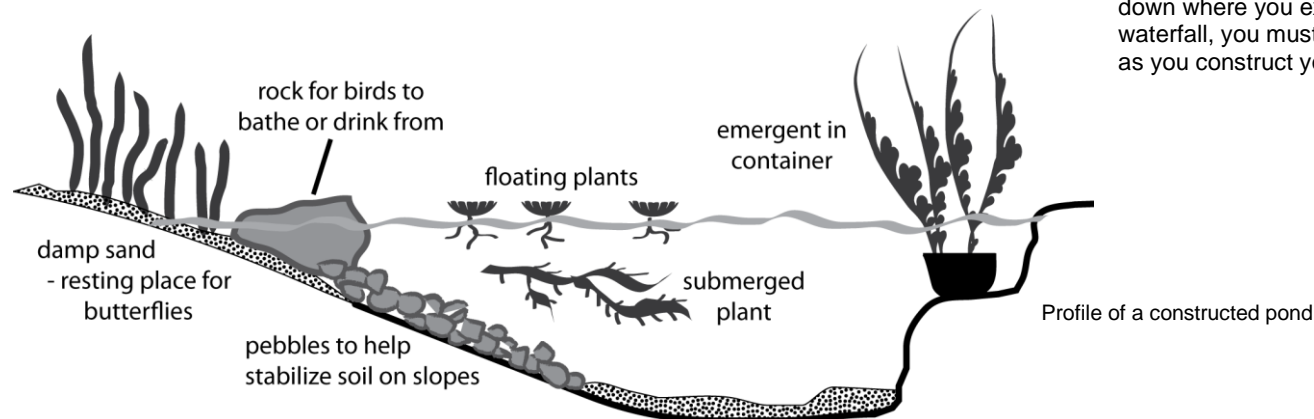
SOUND

Birds and other wildlife will find your pond quickly if they hear running or splashing water. People also find the sound of running water pleasant. Fountains of various types are available in garden shops, but there are many creative ways to make your pond water move.

One of the easiest methods is filling a plastic jug with water, making a small hole in the bottom, and hanging it by its (open) top from a tree branch over the pond. The slow drip can be heard from quite a distance.

A recirculating pump (available from a hardware store or pet shop) can be used to bring water, via a plastic hose, from the pond into an earthenware jug, for example, through a hole in the bottom. The water then flows out the mouth of the carefully angled jug, creating a picturesque vignette at the edge of your pond.

Construct a waterfall by piling up rocks next to your pond. Use a pump to bring the water up the back of the pile and let it spill down the front into the pond. This can be more complicated than it sounds because the surface tension of water makes it run back under rocks instead of straight down where you expect it to go. If you want a waterfall, you must plan ahead and line the slope as you construct your pond.



COMMON LOCAL WETLAND PLANTS

EMERGENTS

Emergents grow in shallow water — roots anchored in the mud, stems and leaves standing up out of the water. They soften the edges of a backyard pond and provide a transition from water to land.

Broad-leaved Arrowhead (*Sagittaria latifolia*)
Pickerelweed (*Pontedaria cordata*)
Water Plantain (*Alisma triviale*)
Wild Rice (*Zizania palustris*)

FLOATING PLANTS

The leaves of these plants lie flat on the surface of the water. Some are rooted in the mud, but others float freely. These plants shade the deeper parts of the pond and can control the growth of algae.

Floating Pondweed (*Potamogeton natans*)
Water Knotweed (*Polygonum amphibium*)
Watermeal (*Wolffia columbiana*, *W. borealis*)
Watershield (*Brasenia schreberi*)
White Waterlily (*Nymphaea odorata*)
Yellow Waterlily (*Nuphar variegatum*)

SUBMERGED PLANTS

These are good oxygenators. Because the photosynthesizing leaves are under water, the oxygen they produce remains dissolved in your pond.

Canadian Waterweed (*Elodea Canadensis*)
Common Bladderwort (*Utricularia vulgaris*)
Water Milfoil (*Myriophyllum exalbescens*)

Needless to say, plants should not be removed from the wild. Local garden centres stock some native species. However, some plants that seem to be attractive additions to a garden pond can actually be detrimental because of their tendency to crowd out other species or even damage your pond liner. Some are even invasive in our native ecosystems. Do your research before planting!

REFERENCES

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Greater Ottawa Water Garden Horticultural Society
(www.ottawawatergardens.com)



Building the FWG's Backyard Garden pond in 1992



Same pond in 2011

Visit us online to read our blog and newsletters, view photo galleries, and learn about volunteering opportunities. Friend us on Facebook!

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Look for the Fletcher Wildlife Garden sign on Prince of Wales Drive, opposite the Canada Agriculture and Food Museum, and come for a visit.

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Fletcher Wildlife Garden

How To

CREATE A BACKYARD POND

***RUNNING WATER
IS SOOTHING FOR
PEOPLE AND
ATTRACTIVE TO
WILDLIFE***

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