

## DOWDING WATER GARDENS

### POND BUILDING BASICS

Welcome to Pond building Basics. So you're interested in having a pond. Before you begin we strongly suggest you plan, research and plan some more before you begin to dig. There are lots of books and information available. Go on garden tours for great ideas.

Are you going to "do it yourself" or hire it done? Dowding Water Gardens does offer a consultation service if you need help getting started. There is always free advice here as well as consultation service at your home priced by the hour.

What is the style you are looking for? There are many to choose from, natural, formal, koi ponds or even pondless water features. Is your property suited for that style of pond.

When will you build, spring, summer or fall? Spring is the most common time to start but fall is a great time. The weather is more consistent, the pond can settle in over the winter, with a few adjustments from settling and you're ready for spring.

Picking the location of the pond is your next step. Are there large trees in the area with large roots? Is the hydro and water easily available to this area? Are there any buried services or weeping bed? What is the grade of the property?

Lay out a garden hose to the shape you might like. Try to envision the style, shape and proportion in reference to the surrounding garden. If you have a large yard a small feature could look out of place. Sit and view the sample pond from the leisure area i.e. patio and windows from the house. Will you be able to see and hear it?

How deep do you want the pond? Do you want your fish to winter over in the pond. Check with your municipality for local bylaws. Some bylaws will effect ponds that are not fenced. Plan various depth of shelves for plants.

Now that you have decided where and the size of the pond will be it's time to set a budget. Is this size of pond realistic?

Calculating the liner size: i.e. 10x12

Measure the length of the pond and the depth of the pond in the deepest spot.

Length + (depth x 2) + 2' overhang to secure liner.(1' for each side)  $10+6+2= 18$

Width + (depth x 2) + 2' overhang to secure liner.  $12+6+2=20$

You will need an 18x20 liner (540 sq. ft.) Liner is usually sold by the square foot and comes in various widths in increments of 5".

If you are planning a waterfall more liner will need to be calculated. If your are planning a waterfall a spillway should be planned. This is where the water pools before flowing over the rock. Various types at different price points are available.

Pond Underlay may be necessary depending on soil type. Are their rocks, tree roots that may

puncture the liner?

Calculating pump size:

How many gallons of water are in the pond? (Length of pond x width x depth of pond x 7.5= gallons of water. It is recommended that the water in small water features be turned over once every hour i.e.: 500 gallon pond -500 gph pump. Larger ponds it is recommended that the water be turned over every two hours.. Are you having a waterfall or stream? More pumping capacity will be needed and should be allowed for. How high would the waterfall be? How much flow would you like?

If you are having a stream and how long are you planning?

Filtration: size of filter will be based on size of pond and the numbers and sizes of fish. Please follow directions of manufacturer for pump/filter recommendations. If a filter suggests it be used with a certain size of pump is suggested for best performance. If a filter is suggested for a 500 gallon pond it will not give the desired result on a 2000 gallon pond.

Rockery: The amount of rock will depend on the style of feature you choose as well as the type of stone you prefer. Would you like the pond lined in stone? Measurements of the area and dimensions of waterfall can help to calculate cost at your local stone yard.

Have hydro and water installed before you start construction. Never use extension cords for pumps. Ground fault units are a necessity for your safety. Pump warranties are void if pumps are used with extension cords.

O.K. lets build a pond!!

Let's review:

Have you done your research?

Have you established a budget?

Have you hydro and water easily accessible to the pond?

Have you check for buried utility services?

Do you have all of the supplies you will need? Don't forget the level.

Mark out the pond.

Remove all sod or bury upside down under the hill for waterfall.

Did you know a mixture of 4 litres of white vinegar , 1 cup salt and 1 teaspoon of dish liquid will stop all further growth of unwanted grass. Spray at least 1 week before construction.

Dig down to the first layer or your fist planting shelf sloping side from edge to 1<sup>st</sup> level approximately 45 degrees. 6-12" pf depth for heights of posts

Be sure to allow for slopes and grades. Grades are critical. A string level or spirit level and a straight 2x4 will be very helpful. You may have to build up low areas.

Dig down to second level. Move in some wide shelves and some spots with no shelf. Continue sides on a 45 degree angle.

Repeat until you reach the desired depth. Confirm liner measurements. Will you need underlay below liner? What type of soil do you have?

Install discharge hose from pump, install underlay around edge to prevent dirt washing back into pond.

Install liner into pond you will probably need extra help for this job. Place stone around the edge loosely and start filling with water. Now is the time to adjust liner if needed. As the liner fills it will sink into position. The weight of the water compresses the soil. It is critical that you settle liner into corners, pick up rock to release tension of liner as it settles.

Finish edge rock according to you design. It is suggested to sometimes change styles of edge for interest around the pond.

Now the fun begins. There are hundreds of different aquatic plants. Some are hardy and some tropical. Then There are fish numerous varieties and sizes available.

Dowding Water Gardens has it all. Everything to build a pond and everything that goes into it.

Beware ponding can be addictive!