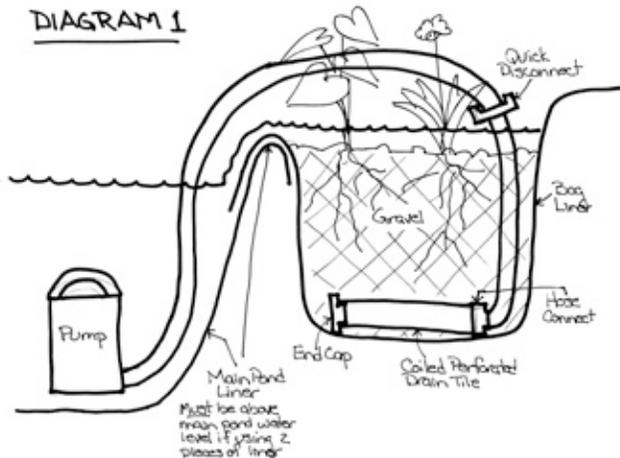


Adding a Bog to an Existing Pond

By Jan Schreier

There are several ways to add a biological bog filter to an existing pond. One way is to dig out an area next to the pond and add an additional liner and pump for the bog. See Diagram 1.

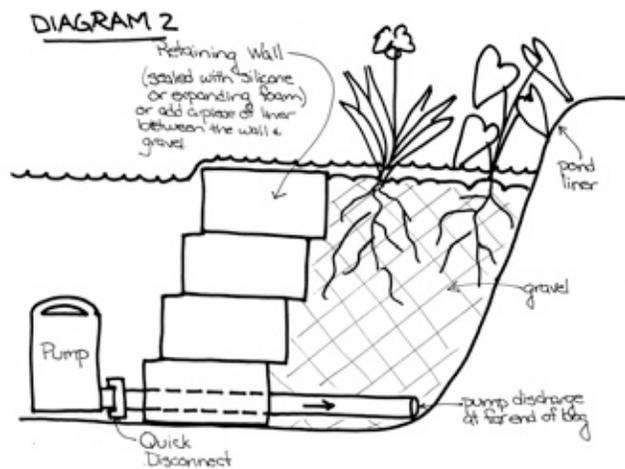


The bog pump can either be placed in the main pond, or in the main pond's skimmer box if there is room. For a bog to adequately filter the water, the water must percolate through the bog. For this reason, it is easiest to run the pump outlet to the bottom of the bog. Run the pump outlet into several lengths of perforated pvc drain tile. You can coil 20 or 30 feet of this drain tile in the bottom of the lined bog, taking up space so that you need less gravel to fill the bog. If you have less than 20 feet of drain tile, I like to drill extra holes in the tile to make sure I'm not limiting the outflow of the pump. Cap the end of the drain tile to force the water out throughout the length of the drain tile. Otherwise, there will be uneven flow throughout the bog, and that will cause "dead" spots where the filtration won't be as effective. Fill the bog with gravel or small rocks. I like to use a combination of sizes to make the top of the bog look more natural. Fill the majority of the bog with smaller gravel (pea gravel or 3/4" river rock) and leave the top 6-10 inches for a mix of pea gravel, 1 1/2" river rock and 2-10 inch pond pebbles. Throw in a larger boulder or two buried 1/3 of the way in the gravel for a more natural look, and to give birds a place to perch when they bathe or drink.



Have fun with your bog by adding a sculptural fountain

The second way to add a bog area to an existing pond, is to create a bog shelf by building a retaining "wall" inside the existing pond. See Diagram 2.



Again, the bog pump can be either placed inside the main pond, or in the skimmer box. In this case, you want to limit the amount of water flowing through the retaining wall. Use material like silicone caulk or expanding foam to help seal the retaining wall, or add a spare piece of liner behind the wall. It is not necessary to make the wall completely leak-proof, but you want the majority of the water flowing through the gravel (and bog plant roots) and then over the top into the main pond. With the retaining wall option, you can make the height of the wall either 1-3 inches below the normal height of the main pond water, or you can raise it up a few inches above the main water level, creating a mini spillway. Just be sure that the main pond liner behind the wall is high enough to accommodate the extra water height in the bog.

Then, fill your bog with water-loving plants. The plants will thrive, and you'll be amazed at how well it helps to keep your water clear with great water quality. Plus a well-stocked bog area makes the pond look more natural and creates a nice transition to the garden next to the pond. Being a plant-lover myself, I like bogs because they allow me to pack in more plants than I would otherwise in the pond. So add a bog this summer to your pond. You'll gain some new plants, and different kinds wildlife will come for a visit.



This well-planted bog makes it difficult to tell where bog, pond and garden start and end.

Here are some additional bog construction tips:

- ✓ Place a quick disconnect at the pump for easy pump removal. If the bog is in a separate area, place the disconnect along the part of the hose that is above the water level. Otherwise, in the winter, when you disconnect the pump, all the water in the bog will siphon out of the bog making it more likely that the bog plants won't survive the winter.
- ✓ If adding a separate area, make sure that the main pond's original liner stays above the water level of the main pond. And give it a lot of room for settling. Over time, this area may settle, and your pond might leak underneath your bog liner. That is one leak that is almost impossible to find because you can't see the wet soil under the bog's liner.
- ✓ If adding a retaining wall, make sure the boulders or retaining wall material is structurally sound, and

angled back towards the bog. The pressure of ice freezing and thawing could otherwise cause a cave-in that can be quite a mess to clean up.

- ✓ Bog plants live off the nutrients in the gravel. Over time, there can be a deep layer of sediment. This is OK as long as there are no dead spots in the flow of water on the bottom of the bog. One way to "clean" the bottom of a bog if the sediment ever starts to impede water flow, is to place the pump hose in a way that you can get a shop-vac hose down the middle of it. If that is not possible, another trick is to take a rigid pvc pipe buried vertically in the bog. Put the pvc pipe in place before the gravel is added, so it makes a hollow tube to the bottom of the bog. Make sure you pad the bottom of the pvc pipe so it doesn't cut into the liner. Hide the top of the pipe by placing a flat stone on the top. This will allow you to drain the bog, or shop-vac out sludge if the need ever arises.
- ✓ An ideal amount of standing water on top of the bog area is 1-3 inches. This makes it a haven for birds, and allows you to use almost all bog plant types. Most bog plants don't like the crown of the plant more than 4" below the surface of the water. You can also stack the gravel higher on one side to accommodate even more water loving plants that don't want their crown submerged like ligularia, impatiens or any of the rain garden plants listed for the bottom of the rain garden.
- ✓ Unlike many main pond waterfalls, you don't need a lot of flow through your bog garden. Depending upon the size of the bog area, pumps ranging from 500gph to 1500gph seem ideal.
- ✓ If the bog pump is placed somewhere in the main pond, add some mechanical filtration like a media pad to make sure the intake doesn't get clogged easily. Or put the pump in a very easy-to-reach area with a quick disconnect, so cleaning off the intake isn't a big production that involves a long dive in the pond.



Taro grow well in a bog. Just make sure they are not planted too deep.