



The Everything You Need To
Know Guide to

POND MAINTENANCE



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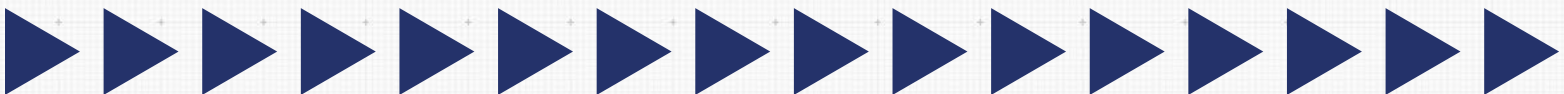
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Introduction

Whether it's a spring clean-out, fall shutdown or simply cleaning out the skimmer basket all ponds need regular maintenance performed to maintain optimum water quality and health.

Before we begin, it's important to note that not all ponds are the same. The amount of work you will have to perform on your pond will depend on how it was installed and the specific components used.

Rest assured however, we've included some general guidelines for maintaining any backyard pond that in this guide.

Whether you are a seasoned pond owner or just getting started our "Everything You Need To Know Guide to Pond Maintenance" is for you!



WEEKLY MAINTENANCE ROUTINE

Water Level

As you interact with your pond during the week be sure to check the water level and add water as necessary. If your pond is equipped with a skimmer you'll want to adjust either the water level or the skimmer weir so that a $\frac{3}{4}$ " gap exists between the surface of the water and the top of the skimmer opening. If you do this once and calibrate the skimmer opening (assuming you have an adjustable skimmer) to the appropriate water level you'll have a quick way to tell if your pond is over full or needs water.

Mechanical Filtration Systems

The name "mechanical filtration" may sound metallic and machine like, but it simply refers to physically filtering debris out of the water via a number of different methods.



Skimmer Box

Skimmer System: The first type of mechanical filter is a pond skimmer, which works just like a pool skimmer. To clean a skimmer first remove and clean out the skimmer basket and filter pad.

If the skimmer basket is completely full consider checking and cleaning it more often. This is an especially important step if the pump is not receiving adequate water flow. After cleaning out the basket take a look around the pond to make sure any leaves, dead plants, or other decaying organic material is removed from the pond. Use a long handled net to clean out any noticeable debris.

Pressure Filter: A pressure filter generally sits outside the pond and has both an input and output pipe to the fountain or waterfall, and a backflush output with a hose running away from the pond. The end of the backflush pipe should be placed downhill from the pond. The ideal spot would be in a flower bed or garden where the biological debris can benefit the plants. When cleaning this type of filter make sure your backflush hose is connected then turn the valve to “clean” or “backflush”. Let the filter run until the water runs clear. Once the water is clear, switch the filter valve back to its original position and if needed fill the pond back to its appropriate water level.



Pressure Filter

Helpful Hint:

When adding chlorinated water it's always a good idea to add some Pond Detoxifier to protect your fish!

Pump



8-PN Pond Pump

In a pond with a skimmer box the pond pump is usually located at the bottom of the box. It's a good idea to check the pump on a weekly basis because debris can build up in and on the inlet cage of the pump causing a reduction in flow. This will ultimately shorten the service life of your pump. While you have the filter mat removed and the pump turned off, follow the plumbing down into the box. Reach down to the pump and find the pump inlet. Some pumps have a cage around the inlet to keep debris out (this is generally on smaller pumps). If yours has one, clean the cage or shroud and then reach into the pump inlet (making sure the pump is definitely off before doing this) and remove any debris.

AutoFill, Auto Doser and IonGen



AutoFill



Auto Doser



IonGen System

While you are cleaning your skimmer it is a great time to check on any installed pond components inside the skimmer. Three add-on components normally installed inside the skimmer box are an auto fill, auto doser, or iongen. If you have any of these installed check them for proper operation before reinstalling the filter pad and skimmer basket.

Tips from the Pros:

To cut down on time, keep all your tools for pond care in one place. An easy way to do this is by using two 5 gallon buckets, one for tools and one for debris. They easily nest inside one another and don't up too much space in your garage or shed. Time saved from looking for tools and supplies is time to spend sitting by your pond paradise enjoying the fruits of your labor!

Beneficial Bacteria



Beneficial bacteria is an affordable and healthy addition to your ponds chemistry. Many different types of beneficial bacteria exist on the market including dry bacteria, liquid bacteria, cold water bacteria, and many other variations. The beneficial bacteria you add to the pond will help keep your pond crystal clear and cut down on the maintenance by eating away at the organic sludge and muck that accumulates over time. Add beneficial bacteria per the instructions on the container.

Algaecide



A self sustaining healthy pond that's free of major algae blooms and is crystal clear is always our goal. Regardless, there may currently be an imbalance in your pond causing an algae infestation. Take a look at our article on the subject of a balanced pond for natural algae control if you have such an issue. In the meantime, there are products for your pond called algaecides that are used to kill and control the amount of algae growing in the pond. You generally add these products weekly and always apply them according to the instructions on the container. Make sure the product is meant for ponds and is definitely fish safe.

MONTHLY MAINTENANCE ROUTINE

Trim Plants and Fertilize

Your pond plants are a beautiful addition to your backyard environment and should be enjoyed for years. In order to keep the plants and your pond healthy and beautiful, plants need to be trimmed back every month. This differs from a fall cutback because we don't want to cut the plants from the top down generally, but instead reduce how much space they take up horizontally. Take your hand pruners from your tool bucket, grab your debris bucket, put your waders on (if needed, or for added style), and start trimming your plants back. A general rule is to trim back the plants to the size of their respective pots. You generally don't want an overgrown pond as it's not healthy for the plants or for the balance of the ecosystem. As you move from pot to pot, insert a fertilizer tab. While cutting, remember to remove all dead plant material from the pots and pond.



Clean Waterfall Rocks

Over time some muck, moss, or algae may build up on the waterfall rocks depending on the balance, or lack thereof, that has been achieved in the pond. Green string algae is a common issue and never adds to the overall look of the waterfall like moss can. In order to clean a waterfall first turn off the pump. After the water has stopped, we use a product called EcoBlast and a brush to clean the waterfall rocks. EcoBlast is a dry fish safe algaecide that can be used to treat the water in a pond, or in this case be sprinkled onto string algae to help remove it from rocks. After you've applied the EcoBlast to the algae give it a few minutes to work and then scrub it from the rocks.



Clean Biological Filter

Any pond should have a good biological filtration system. A biological filtration system gives bacteria colonies a place to thrive, cleaning the water by breaking down organic compounds such as dead plant material and fish waste. The filter will also help remove excess nutrients in the pond water thereby creating a balanced pond ecosystem. Biological filter media is what gives the bacteria a place to grow by giving the bacteria the most surface area possible. Traditionally this has been done with a material like lava rock, but now can be accomplished with many different types of lighter synthetic media such as plastic bio balls.



Biofalls: This type of filter media is usually combined with mechanical filtration, like filter pads, in a single unit such as a waterfall container, generally referred to as a biofalls. There are many other designs for the overall filter unit, but the theory is the same. Filter the water with a type of mechanical filter, then with a biological filter media, and then return the water into the pond. Some units will have a backflush option, but many will have to be manually cleaned. First pull out the mechanical filter(s) and spray them down with a hose or pressure washer to rinse out the sludge. Then remove the biological media if it is in a removable tray or bag, and rinse it down. If the filter media is not removable, rinse it in place making sure the dirty water does not enter the pond. After cleaning the filter add some beneficial bacteria to kick start the regrowth in the filter media since you just rinsed out most of the bacteria colonies. Doing this every month, or as needed, will help keep your water clear and your pond balanced.

Wetlands

Another general type of biological filtration mechanism is a wetlands filter. In a pond, a wetlands is an area that is packed with gravel, sometimes in various sizes, through which the water is pumped. Generally it is a fairly large area, but that depends on the overall size of the pond. The reason this type of filtration is mentioned in this article is actually because of the lack of maintenance it requires. You should check the flow of water and make sure that plants are not causing a completely overgrown situation in the filter bed, but besides that it is virtually maintenance free on a monthly basis. If you experience water quality issues or a visual build up of pond muck in the gravel bed, it may be time to clean it. This may take years though depending on fish load in the pond. If you don't have a wetlands filter or aren't planning for one in your new pond, it may be time to think about one.



SEASONAL MAINTENANCE ROUTINE

Summer Maintenance

Summer in the DC Metropolitan area is your prime pond enjoyment season. During the summer your plants and fish will be growing like crazy. Most of your pond maintenance will revolve around trimming the plants, feeding your fish, and cleaning your filtration systems. Keeping up with the maintenance during the summer is very important to keep your pond healthy and the water clear.



Tips from the Pros:

While the plants are growing add aquatic fertilizer monthly for continuous blooms.

Prune Back Plants: Summer is the growing season for your outdoor plants and they will require some maintenance to keep them and your pond healthy. As explained earlier, keep your plants contained in their pots or at least from taking over the pond. You want the surface of the pond to be fairly open so you can see your fish and admire your pond from your anywhere in your yard. Every couple of years you will want to re-pot your plants to keep the root systems healthy. Your pond plants can get root-bound and start to suffer after a few seasons, especially the larger plants like lily, lotus, and iris.



Feed Fish: The fish in your pond in many cases do not need to be fed as they will feed on the other organic life growing on the rocks and plants in the pond. However, giving them a nutritious boost will help them continually grow through the summer season. A rule of thumb is to not feed the fish more than what they will eat in 5 minutes. Start by throwing in a handful of food. Continue adding food as the fish finish it until 5 minutes is up. It's important to not overfeed the fish, the extra food can have a negative effect on their health varying by species. Uneaten food in the pond will break down and cause excess nutrients to build up in the pond, which in turn can actually hurt the fish. A floating feeding ring placed in your pond will help keep the fish food contained and out of your skimmer, it also makes excess food easy to remove from the pond. You can also easily keep track of how much the fish eat in five minutes this way.



Tips from the Pros:

Koi can be very destructive to the plants in your pond. They love to dig around in the pots and eat the roots of your plants. To discourage this, fill the top few inches of your plant pots with rocks. If the rocks are large enough the Koi won't be able to dig around them, saving your beautiful plants from damage.



The most common species of fish for your pond include goldfish, Japanese Koi, and Golden Trench. Goldfish and Golden Trench variants are very hardy and are not easily susceptible to illness. Koi can be more temperamental, but keeping an eye on your water clarity and filtration will help ensure a long life for all of your fish.



Fall Maintenance

Once the weather starts getting colder your plants and fish will start to slow down. Going into the colder season your plants will enter their dormant state with their leaves dying and falling off.

To save your pond from all the this extra organic material throwing the pond out of balance it is a good idea to cut back the plants as soon as they start turning.

There are certain rare species that require different trimming practices, but the general practice is to cut the plants back a few inches above the root system. We generally do this in October around the DC Metro area. Once the fall cutback is done, plant maintenance is done until spring time.



Install a net over the pond: While your working on cutting your plants back it's a good time to get your pond covered with a net so leaves and other debris won't enter your pond during the fall and winter seasons. You'll need a net big enough for your pond, some stakes (usually the smaller green T-post stakes, but could be something different), black twine, and sod staples. Hammer the stakes in around the pond being careful not to hit plumbing or irrigation lines. Run twine around the top of the stakes going around the perimeter of the pond and then across the middle to support the net. Place the net over the pond, center it and make sure all the edges reach the ground, then secure with sod staples. It's easy to clean off the net with a leaf blower when it's secured two feet above the pond, you'll want to do this weekly generally, or as needed.





Stop feeding your fish until spring: During the colder months, your fish will not be active because their bodies are slowing down with the colder temperatures. If you actively feed your fish every day or every week, start cutting back the schedule to two or three times a week as the temperature begins to drop below sixty degrees Fahrenheit. Once the water temperature approaches fifty, stop feeding your fish altogether. If they do get a hold of any fish food it will either pass through them without being digested or at worst, depending how cold it is, cause them harm because they are not active enough to digest and move it through their system.

The most common question we get during the winter months is:

“Should I turn off my pump?”

[CLICK here to learn more!](#)

Winter Maintenance

There are a few things to be aware of when caring for your pond in the winter.

During the winter months fish will continue to create waste and there are still decomposition activities occurring causing the water to become increasingly toxic, unless the water has a path to fresh air allowing the release of these compounds. If you have fish it is imperative there is a hole in the ice for the pond to breathe.

Consistent low temperatures will produce ice. As ice forms it takes water volume from the pond. You'll need to have a hose



handy to add water if you notice the level dropping. Check the level regularly to be sure there is enough water in the pond for the pump to circulate the water. A pump running without water for a prolonged period will be damaged. Ice formations look beautiful but can also cause water to divert outside of the waterfall or pond, causing rapid water loss. Inspect the ice formations in the water fall to be sure the water is not being diverted out of the pond.

Most of our pond pumps stay running all winter long. If you maintain the water level for optimum pump efficiency, keep an eye on ice formations and keep a small hole in the ice to release harmful gases your pond should remain in running condition throughout the season.



Pond De-icer

If you have decided to pull your pump, be sure to store it in an area where temps stay above freezing. You'll also want to drain the plumbing, so there is no potential for freezing and damaging the mechanics. If you have fish, we would also recommend installing a pond deicer or bubbler/aerator designed to keep a small hole open to release harmful gases. If you do not have fish, a deicer & aerator are not necessary.

Fish Pond Deicer: The easiest way to keep a hole in the ice is to install an electric pond heater/deicer. While it might sound like it should heat the entire pond it is specially designed to heat

just the area around the unit. Using a deicer will not change the overall temperature of the pond water. One thing to be aware of if the weather is extremely cold for multiple days, there are windy conditions and measurable snow accumulations the area above the heater can freeze. Be sure to check the unit often to avoid it freezing.

Aerators for ponds: A pond aeration system works by adding oxygen to the pond. As the air is circulated through the water it allows the organic compounds that are in the water to attach and when the bubble hits the surface the gases break apart releasing them safely into the atmosphere. It's very important during winter months to keep the air stone a foot above the bottom of the pond. This will keep the warmer water just below the air. If the air compressor is out in the cold air it is transferring that cold air to the pond water. This could cause the fish to die. Consider covering the winter pond aeration system with an insulated cover or put it in a heated building.



Pond Aerator



Spring Maintenance

When the temperature stays above freezing it's time to open up your pond. If you have a pool you may be familiar with this procedure, but there are some distinct differences.

First, you can clean and remove the net and pond heater from the pond. Bundle it up with the twine, staples, and pond heater in a bag, storing it somewhere you won't forget it or accidentally throw it away.

Second, install your pump and check valve into the pond. Hook it up and make sure you have good flow through the waterfall. Regardless of your attempts to keep things from freezing, there may have been damage to the components over the winter. It's a good idea to keep an eye on the pond's water level for the first day of operation. If your pond is losing water check for soggy spots of soil where your plumbing is buried, the back of your skimmer, and the back of your biofalls. Any soggy spots suggest that freeze damage has occurred and you will need to replace that area of plumbing or component.



*Tips from
the Pros:*

Start feeding your fish once the water temperature gets above 50 degrees consistently.

Feeding Your Fish: With the water temperature reaching a steady level above fifty-five degrees it's time to start your normal fish feeding habits. Your fish will start to be active again and ready to digest nutrients quickly. However, most fish do not need external food since they will feed on the organic material and algae that is produced naturally in the pond so feeding is in most cases optional.

Wash the Pond: This step is usually not necessary, however many people like to pressure wash the pond to start the year off with a clean, but still natural looking water feature.

There are many different opinions on this aspect of a rock bottomed pond. Should you flip over every single rock and make sure that there is no organic material left in the pond? Or should you wash just the top of the rocks? Should you wash the pond every year, every two, every three, or not at all?

Answer to the question of cleaning and how often is dependent upon the situation. How much bacteria gets added to the pond, how much debris ends up in the pond each year, and how many fish reside in the pond. In general we suggest an annual or biannual cleaning of the pond. This can be extended with proper use of beneficial bacteria, filtration, and a pond net.



Conclusion

Ponds add beauty and variety to ones home landscape, not to mention the relaxing, soothing sounds of a stream or waterfall. While there are many different aspects to maintaining a healthy backyard pond, it is possible for you to successfully maintain your own backyard waterscape paradise. The keys to maintaining a beautiful pond includes doing your research, asking questions from other pond owners and professionals, and committing effort and time to maintain your pond.

Our hope is the information contained in this guide has given you a great overview of what general maintenance and procedures are required to keep your pond looking spectacular. Happy ponding!

