

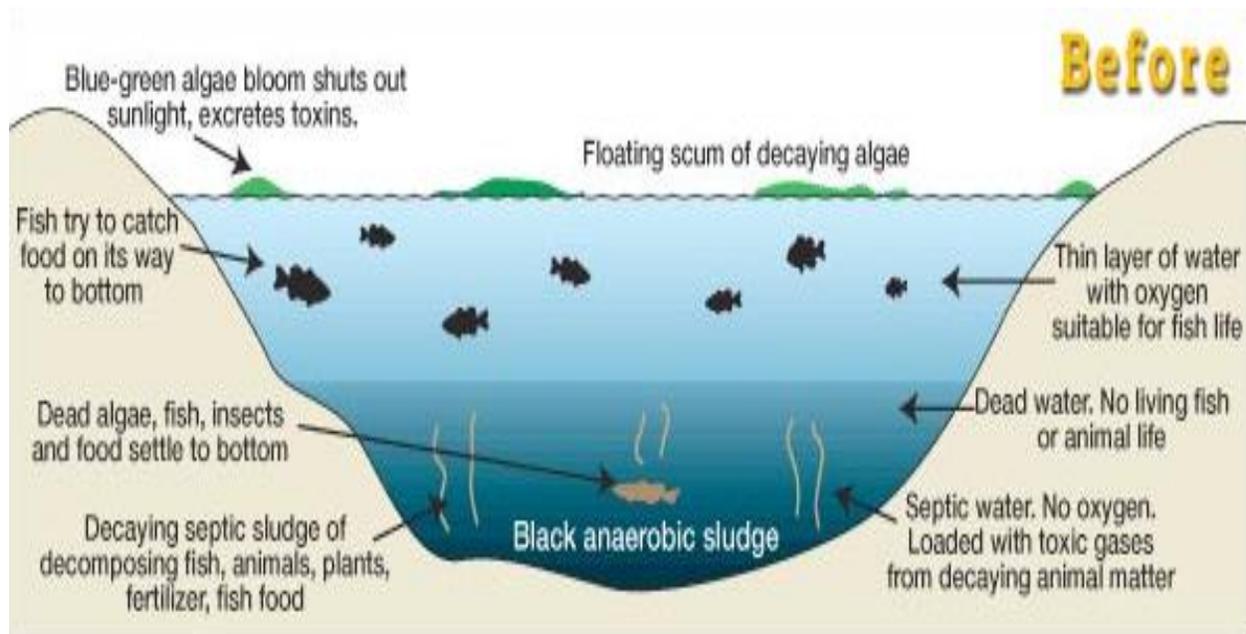
Aeration: The Natural Way to Improve Water Quality



Dissolved Oxygen is the key to maintaining a healthy and thriving eco system. While oxygen is found in virtually every water system, Mother Nature may not be providing enough oxygen to keep everything balanced. The addition of an aerator will ensure you never have to worry about a lack of oxygen.

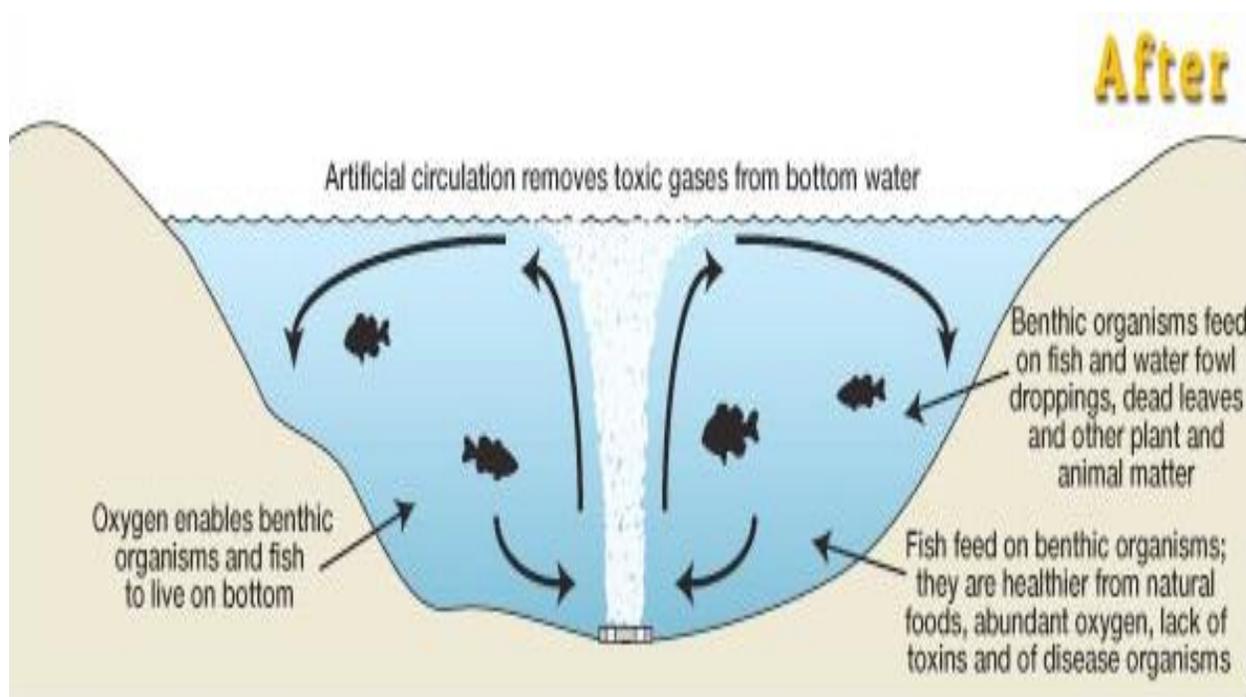
Natural Oxygen:

Oxygen is created naturally in every water system. Plants and algae release oxygen into the water by means of photosynthesis, while critical gas exchange occurs at the surface of the water. Here, toxic gases are able to escape while oxygen is absorbed into the water system. Oxygen is also naturally depleted in every water system due to animal and microbial respiration and decomposition. One common problem that occurs in water features is stratification. This is where the bottom layer of water become depleted of oxygen while the top layer remains oxygen rich. This happens due to an excess amount of sludge build up on the bottom that consumes all available oxygen to aid in decomposition. This 'dead zone' can lead to fish kills, foul odors, algae blooms, and murky water.



How Aerators Help:

The addition of an aerator will eliminate the worry of stratification. The moving water will force the still, un-oxygenated water to the surface while pulling warmer, oxygenated water to the bottom. Increased dissolved oxygen levels will help to speed up organic breakdown at the bottom which ultimately leads to less algae blooms, foul smells and murky water. Fish and animal life will also thrive with increased oxygen. Fish will be noticeably less lethargic, as well as grow faster and eat more.



Seasonal Benefits to Aeration:

Aeration is extremely beneficial year round and can help combat seasonal battles. In the summer time, oxygen levels in the pond are much lower as warmer water cannot hold as much dissolved oxygen as cooler water can. This creates the perfect environment for algae blooms! An aerator is REQUIRED if you are using chemical algaecides or insecticides. Most of these products will deplete oxygen in the pond, especially during dry, sunny periods. In the winter, an aerator will help to leave a hole open in the ice which allows for critical gas exchange. If the ice freezes solid over the pond, toxic ammonia and carbon dioxide will build up under the surface which can poison your pets. During the winter months, it is recommended to lift the aerator off the bottom and instead raise it up to 1-2' from the surface. This will help to protect the thermocline, leaving a warmer layer at the bottom for wildlife to hibernate. It is also beneficial to group together all aerator stones in one location to help ensure enough circulation for a hole to be left open.

Aquatic Designs carries a variety of aerators in a range of sizes. We even have fountain kits if you are looking for something more dramatic. Call, come in or email us if you would like any more information on aerators, fountains, or how to improve your water quality!



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