

Aquascaping

Aquascaping is simply landscaping the shoreline of ponds and lakes with aquatic and wetland plants. Ponds and lakes with a landscape design have fewer problems than those without. Vegetation filters polluted runoff and traps sediments. Aquatic plants pump oxygen into the water and create habitats by providing cover and nurseries for fish and other organisms. More importantly, vegetated shorelines help improve water quality. Vegetated stormwater lakes have a pollutant removal capacity that can be up to five times higher than unvegetated lakes. With proper planning and planting, stormwater BMPs can thrive like natural lakes, prolonging their lifespan and enhancing their ability to improve water quality.



Plants absorb runoff water.

Aeration

Aeration is a cost-effective method of enhancing water quality and provides an environmentally friendly alternative to chemical use. Aeration stimulates natural processes that improve water quality. Aeration also keeps dissolved oxygen levels high, which can help prevent fish kills in the summer. By raising oxygen levels, aeration also stimulates aerobic bacteria, which are important for stormwater BMPs, as they digest excess nutrients.

Aeration is a science, so when considering an aeration system for your pond or lake, consult an expert. Look for companies that specialize in lake management and aeration.

Remember that fountains are NOT aerators. A fountain is a decorative water feature that does not improve water quality. Fountains have no impact on water quality because they use a low volume of water at high pressure. Aerators use a high volume of water at low pressure to circulate water throughout the lake, rather than simply spraying the water into the air.



Aerators can be functional and decorative, unlike fountains which are only decorative.

Chemicals

Chemical treatments require a professional with the appropriate licensing. A mistake in dosage can be toxic to fish and can have serious impacts downstream. Oxygen depletion and fish kills are distinct hazards when treating large infestations of nuisance vegetation. Furthermore, chemical control is usually temporary and, at best, merely treats the symptoms. Maintenance efforts that emphasize chemical treatments year after year are expensive and can perpetuate nuisance algae and vegetation problems.

Bioaugmentation

Bioaugmentation involves the addition of a special blend of naturally occurring bacteria to the pond or lake. These bacteria compete with algae for nutrients, digest dead organic matter throughout the water column and sludge layer, and eliminate pond odor caused by ammonia and hydrogen sulfide. Bioaugmentation products are sold under brand names such as LakePak and OtterClear. If considering bioaugmentation, consult a professional. The effectiveness of any bioaugmentation product is greatly enhanced with the use of an aeration system.