



Providing Treatment Solutions for Air, Water, & Land

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Taking Care of Our Lakes and Reservoirs



Today's lakes and reservoirs are facing a variety of challenges from the surrounding environment that threaten the health of the creatures that depend on the life sustaining water. As has become more and more clear, human beings are among the creatures that rely on the quality and health of these bodies of water.

Theia Water offers a range of simple, innovation solutions that address the cause of these issues facing lakes, rivers and reservoirs. As with all the solutions we offer, these solutions are easy to apply and work with nature, allowing the healthy natural processes to function properly, and helping them to undo any existing damage. These solutions are sustainable because they are designed to restore the natural balance. Additionally, these solutions do not add anything to the water that is not normally found in nature.

Theia offers solutions that are designed for the site and the customer. While the word "custom" normally means expensive, that is now how Theia does it. We engineer a solution for the site by working with you and with your site, utilizing what is already there when possible to reduce capital costs.





Destratification and Aeration: Theia's Oxygenator system is a simple device that uses ambient air to saturate the water passing through it with dissolved oxygen. The Oxygenator is also a high turbulence mixing system. While oxygen transfer is important, it is not efficient or effective without thorough mixing. The Oxygenator system affords the customer hydraulic control over the body of water, "turning it" to their advantage without disturbing sensitive areas if that is a concern. The system destratifies the body of water with thorough mixing while eliminating anoxic zones that present the main dangers. The system drives up the dissolved oxygen level, eliminating algae as well as other issues that come with anaerobic or anoxic zones

Simple and Safe: The Oxygenator system utilizes a pump and our Oxygenator nozzle, both of which are located on dry land. This step allows the equipment to be easily accessible for operations and maintenance staff where they can perform the infrequent maintenance on the system on dry land.

Augmentation and Restoration: Theia utilizes a unique system that introduces healthy beneficial bacteria to the water which consume the organic waste including that produced by the aquatic life. The bacteria also consume and convert some of the nitrogen compounds helping to keep a healthy balance. The bacteria consume the food, thus crowding out the cyanobacteria and other harmful strains. As the balance is restored, other organisms like Chlorella can be introduced to the water or will grow naturally. These organisms do not form mats or blooms which suffocate the ecosystem like other algae. They pump oxygen into the water while consuming any excess nutrients. As their population grows, they are consumed by fish which, if not naturally occurring, can be introduced to the water and the cycle is complete.

Other treatment: Theia Water offers solutions for the removal of higher levels of phosphorus and nitrogen compounds which adversely impact these waterway. We offer ammonia and metals removal technologies which can be brought to the site on a long or short term basis to remove these compounds and then more permanent solutions can be introduced.

Turn This



Into This

