

# Solutions For Lakes & Source Water Reservoirs



**Over 450 lakes & source water reservoirs currently use SolarBee® active lake circulation technologies to solve their cyanobacteria problems.**

**SolarBee® Lake Circulators** from are designed to solve a variety of water quality problems in lakes and source water reservoirs.

Active lake circulation can prevent and control harmful cyanobacteria (a.k.a. blue-green algae) blooms in the epilimnion (top water above the thermocline) or they can be deployed to treat the hypolimnion (bottom water below the thermocline). More detail on epilimnetic vs. hypolimnetic deployment is included on the opposite page.

## Equipment Types Available

SolarBee® Lake Circulators operate 24/7 to improve the water quality with equipment flow rates varying by application (ranging up to 10,000 gallons per minute!). SolarBees can also be configured to run strictly off the grid-power for smaller applications where electrical power is readily available near shore.

Ixom Watercare also manufactures the AerationPlus® Lake & Pond Circulator. The AerationPlus is a submerged air-powered circulator perfect for applications such as city park ponds, marinas, small stormwater ponds or near-shore areas of larger lakes and reservoirs.

## Pay For The Project With Cost Savings

Of the 450+ lakes & reservoirs SolarBee® Lake Circulators have restored worldwide, approximately 50% of them are source water for municipal drinking water plants.

In many cases, SolarBees have paid for themselves in the first year with carbon savings in the drinking water treatment plant and/or chemical savings in the lake. Some of our Customers have reported savings over \$500,000 per year in plant operating costs compared to before they installed SolarBee® equipment!

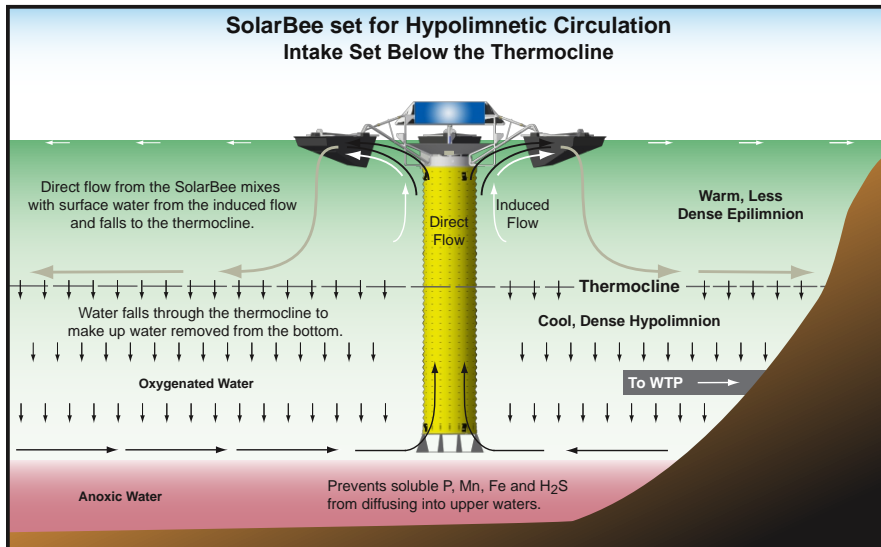
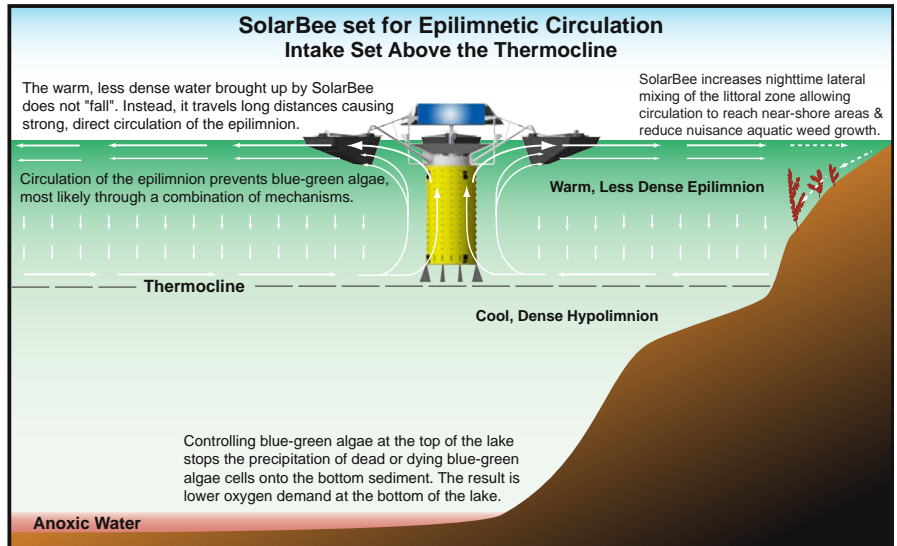


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## Epilimnetic Vs. Hypolimnetic Circulation

**Epilimnetic Circulation-** The intake is set to circulate the upper part of the water column from the surface to the thermocline or point of significant temperature stratification.

- Prevents and controls cyanobacteria (blue-green algae) blooms.
- Reduces taste and odor problems in drinking water reservoirs.
- Improves dissolved oxygen (DO) and pH levels throughout the circulation zone.
- Reduces invasive aquatic weeds & filamentous algae.



**Hypolimnetic Circulation-** The intake is set deep in the reservoir below the thermocline to continuously bring up and expose bottom waters to the oxygen-rich epilimnion and atmosphere.

- Oxidizes manganese (Mn) & iron (Fe).
- Helps to prevent fish kills.
- Continuously de-gasses H<sub>2</sub>S.
- Reduces methyl-mercury (Hg).



To access educational lake videos and information, please visit us at [www.ixomwatercare.com](http://www.ixomwatercare.com)