

Case Study – Grand Lake Phosphates

A KRIA Ionizer was tested in Grand Lake, St. Mary's, OH from August 2012 – October 2012. Grand Lake is approximately 4 miles wide by 10 miles long and maximum of 15 foot deep with a significant algae problem caused by agriculture runoff. During this period the system ran 24 hours/day for 8 weeks with observation and testing performed by a third party testing company. Testing included measurements of DO, conductivity, ORP, BOD, and COD as well as phosphate concentrations in the surface water and sediment.



The level of algae before the KRIA System

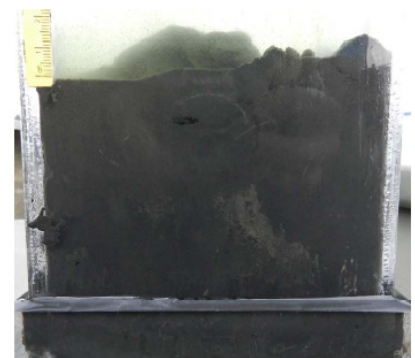
Raising Dissolved Oxygen (DO) Levels in a Water Body Causes the Following to Happen:

(Data cited below is from Grand Lake Ohio's 8 Week Algae Test)

DO levels raised 172% up to 310% and lake's bottom DO level was nearly equal to the tops!

- Phosphorus dropped 20%
- Phosphates dropped. 25%
- Nitrogen/Ammonia Nearly gone
- There were seven Algae / Cyanobacteria
 - Five of seven Eliminated
 - One of seven Just about eliminated
 - One of seven Excellent drop
- Sediment Sample Location - KT-1 Test location is located approximately 300 feet in front of Ionizer's return nozzle
 - Sample was 12" deep 8" of depth saw cleaning (see Sediment photo KT-1) – aerobic bacteria becomes activated

KT-1 – Sediment Grab



KT-1 – Photograph taken on 8/20/12



KT-1 – Photograph taken on 10/16/12

* This illustrates that both the water column & sediment is being cleaned.

* Complete test data available upon request