

## Lake Size

13,500 acres

## Date of Applications

June 2011 & April 2012

## Project Sponsor

Ohio Department of  
Natural Resources

## Project References

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## Grand Lake St. Marys, OH

**Grand Lake St. Marys**, a 13,500-acre drinking water reservoir located in west central Ohio, was the site of the two world's largest alum applications. HAB Aquatic Solutions applied over 2.6 million gallons of alum and sodium aluminate in 29 days during the first



*One of HAB's Large Application Barges*

year of the project (June 2011) to a 4,900-acre portion of the lake. In April 2012 (year 2), HAB applied over 2.7 million gallons of alum and sodium aluminate to the same section of the lake in 29 days.

Additional applications were planned to deliver the full buffered alum dose, but funding constraints have only allowed for two application to date. Although only 27% of the total aluminum dose has been applied, internal P loading was reduced by 43% and water column phosphorus decreased by 30-43%. A team of third-party scientists from Tetra Tech analyzed sediment samples throughout the lake and confirmed that HAB's GPS guided application process results in an even distribution of the target aluminum dose, despite high algal concentrations present at the time of application.