



Demonstration Program – Perrysburg Wastewater Treatment Plant, Perrysburg, OH

Opportunity

A dominant challenge to the water quality of Lake Erie are excessive nutrients, primarily nitrogen and phosphorus, which result in Hazardous Algal Blooms (HABs). These HABs have a negative environmental and economic impact on the livelihood of those who rely on the lake. Sources of these excessive nutrients come from point source discharges and agricultural industries. Efforts to reduce these nutrients, which have focused primarily on education and best management practices, have not been successful, as evidenced by the City of Toledo drinking water disruption in August 2014. Perrysburg is a leading-edge solution seeker in the process of evaluating technologies as part of a comprehensive strategy for reducing nutrient loading in the Great Lakes.

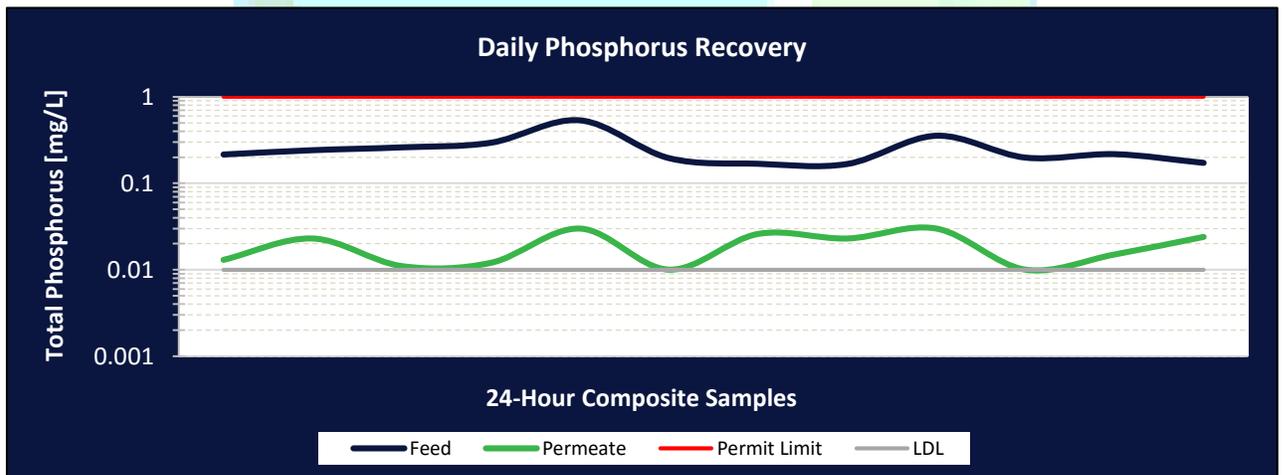


Clearas Approach

The CLEARAS WATER RECOVERY® (Clearas) Advanced Biological Nutrient Recovery (ABNR™) technology has been demonstrated at multiple industrial and municipal point source discharges to significantly reduce the level of nutrients in treated streams. Having been demonstrated in testing of over 10,000,000 gallons in the last year, phosphorus reductions of 90% plus nitrogen reductions of up to 60% have been demonstrated. Clearas believes that its ABNR technology can be a key part of the comprehensive strategy to restore the water quality of the Great Lakes.

Results & Impact

Clearas began treating Perrysburg’s secondary effluent the latter part of July 2015 and has returned promising results indicating the success of ABNR. While operating in steady-state, the ABNR process has been able to effectively demonstrate an average 93% recovery of phosphorus (as shown below). The City of Perrysburg is currently in compliance with their discharge permit, but results from ABNR will allow for a long-term solution to nutrient demands.



Other case studies are available upon request. Visit our website at www.ClearAsWater.com.