



Great Lakes Protection Fund

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### Funded Project

# Monitor and Compare Orthophosphate Removal Technologies

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Project No.	1208
Timeline	2019 – Active
Award Amount	\$82,000
Team Leader	The Everglades Foundation

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This is a design grant that will incorporate automated monitoring technology for dissolved reactive phosphorus into the final phase of the George Barley Water Prize competition. The George Barley Water Prize was created to spur innovation in removing phosphorus from water. Teams from industry and academia are competing for a grand prize of \$10 million.

This grant will enable the Everglades Foundation-led team to look beyond total phosphorus in assessing the performance of the competing technologies. Total phosphorus is relatively well-controlled in the Great Lakes region; but technologies that can remove orthophosphate, or dissolved reactive phosphorous, (the form of phosphorus directly taken up by plant cells) are needed in the region.

With this design support, the team will modify the site to accommodate automated orthophosphate monitoring systems and will test and calibrate the monitoring system for use in the final phase of the prize competition. The project team will then prepare a proposal to the Fund to install and use the orthophosphate monitoring sensor to measure each technology's performance in removing orthophosphate. At the end of this effort, we will have a better understanding of how well each competing technology removes orthophosphate; as well as a better understanding of how well the newest orthophosphate sensor technology works and its applicability in the Great Lakes region.