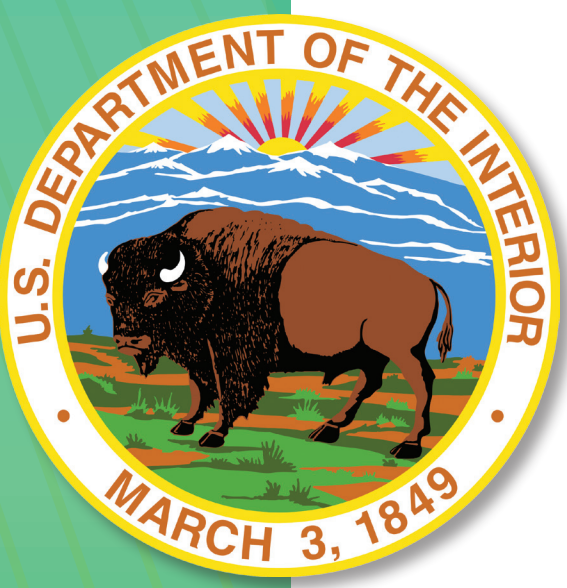


Federal Energy and Water Management AWARDS 2014



Main photo: The Great Lakes Science Center uses egg incubators to rear eggs that normally would be deposited in areas of running water, such as a stream.

Inset photo: Four foot diameter tanks in the main tank room are used to house medium-sized fish or small schooling fish.



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The U.S. Geological Survey's Great Lakes Science Center completed a major wet laboratory upgrade in FY 2013 that will save \$9,000 in annual storm water discharge costs and decrease water use by about 52.6 million gallons per year. The upgrade replaced a once-through well water system with a re-circulating city water system, dramatically increasing capacity and efficiency and eliminating the constant flow of well water. Prior to the upgrade, the wet lab was becoming increasingly difficult to operate due to plugged water lines and failure of equipment already at or near the end of its useful life.

The design team and scientists worked together on a cost effective, holistic approach, developing a plan that combined several projects on the maintenance and construction backlog and replaced the entire process water system, including peripheral components.

The re-circulating system also reduces chiller operation, and the change to city water and use of polyvinyl chloride plastic piping dramatically improves water flow, which in turn reduces pumping energy. These improvements will save about 1.2 billion Btu of energy per year.