



Great Lakes Protection Fund

1560 Sherman Avenue, Suite 1370, Evanston, Illinois 60201

Tel 847-425-8150 Fax 847-424-9832 glpf.org

Funded Project

Accelerating the Shift to Environmentally Sensitive Electricity Through Collaborative Competition

Project No.	1072
Timeline	2016 – 2019
Award Amount	\$557,000
Team Leader	Chad Weikel, American Water Works Association, cweikel@awwa.org



Water Utility Emissions Champion 2018 - City of Ann Arbor, MI

This project was built upon the Fund's previous investments in developing the Locational Electricity Emissions Methodology (LEEM) and the Pollutant Emission and Pump Station Optimization tool (PEPSO). LEEM interacts with the power grid to determine, in real-time, the fuel sources that are being used to generate electricity and the emissions from those sources, and signals when cleaner forms of energy are available. The LEEM-PEPSO combination enables utilities to tailor pump operation schedules to minimize mercury emissions while meeting their system constraints.

Using LEEM-PEPSO, the team conducted a first-ever competition for municipal water utilities across the Great Lakes region to reduce mercury, and other energy-related pollution emissions. During the 12-month competition, five participating water utilities were able to make small shifts in the timing of pumping and filter washing to reduce emissions while maintaining the same high quality of service. **The five utilities combined had mercury savings equivalent to removing 3,000 homes from the electrical grid for one month.** Or looking at it a different way, it was the same as removing mercury from 52,000 pounds of fish. The participating utilities were all recognized for their leadership:

Water Utility Emissions Champion, \$20,000 prize

- City of Ann Arbor, Ann Arbor, Michigan

Water Utility Green Champion, \$10,000 Prize

- City of Bayfield, Bayfield, Wisconsin

Best Pilot Project

- Great Lakes Water Authority (GLWA), Detroit, Michigan

Technical Leader



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- City of Highland Park, Highland Park, Illinois

Carbon Reduction Leader

- Onondaga County Water Authority (OCWA), North Syracuse, New York

The competition received a lot of attention. *Treatment Plant Operator* (TPO) magazine featured the competition and the competitors in three articles, and Wisconsin Public Radio did a piece on the competition. See below for links.