

## **Designing and Implementing a Remedy Effectiveness Assessment for Thomson and Scanlon Reservoirs in the St. Louis River Area of Concern (AOC)**

**Marc A. Mills**, Todd Luxton, James Lazorchak, Ken Fritz, Joel Hoffman, Lawrence Burkhard, Greg Peterson, and Graham Hanson (EPA ORD)  
Meagan Kern (GLNPO)  
David Walters (USGS)  
Mark Elliott (MPCA)

**Background/Objectives.** The Great Lakes National Program Office (GLNPO) and the Minnesota Pollution Control Agency (MPCA) are developing remediation and restoration actions for the Thomson and Scanlon Reservoirs on the St. Louis River.

**Approach/Activities.** A multi-Agency team of researchers and project managers from EPA ORD, EPA GLNPO, MPCA, and USGS conducted baseline assessments along multiple lines of evidence using physical, chemical, and biological methods and metrics. The team designed and executed the baseline characterization from 2016-2017 focused on characterizing the two reservoirs for the primary contaminants of concern (COCs) dioxins/furans and mercury. Innovative measures and metrics were used to assess the COCs impacts in the reservoir systems.

**Results/Lessons Learned.** These included biological metrics such as various macrobenthos measures, spiders, swallows, and multiple fish species. Chemical metrics included surface sediment, sediment at discrete depths, passive samplers, and water measurements of the COCs. Finally, physical measures included bathymetric surveys and sediment physical characterization. The results of these assessments will be presented and compared to a reference condition.