



Lower Fox River "Total Maximum Daily Load": How Will It Affect GBMSD?

The Environmental Protection Agency (EPA) recently approved the Total Maximum Daily Load (TMDL) for the Lower Fox River and Green Bay basin. A TMDL is a regulatory tool developed by the Wisconsin Department of Natural Resources (WDNR) for any water body which has been designated as "degraded." The TMDL first identifies the problem (in the case of the Lower Fox River, too much phosphorus and suspended solids), determines the sources for the pollutants in question, calculates the loading reductions necessary to return the water body to a non-degraded condition, and prepares a plan to identify where those loading reductions should come from.

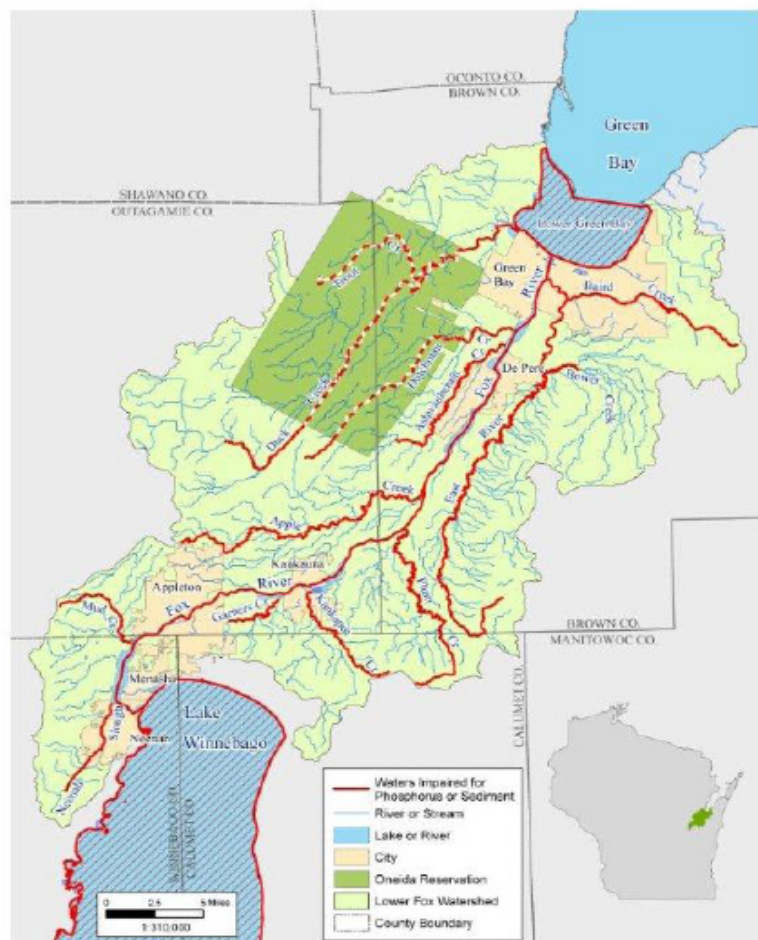
The EPA guidelines for development of TMDLs indicate that the loading reductions should come from all sources, point and nonpoint. This makes implementation of the TMDL difficult in any watershed which has both point and nonpoint contributions, as the rules currently in place for point source discharges give the DNR much more authority than do the rules for nonpoint. Even so, the Lower Fox River basin TMDL clearly identifies the loading reduction goals for both point and nonpoint sources.

It is not clear yet how the nonpoint reductions will be made. For the point sources, the overview calculation has estimated that all point sources will need to reduce their discharges of phosphorus to approximately 0.2 mg/L

in order to meet the TMDL reduction goals. Individual permits may look very different; however, it is not yet clear how these agencies will incorporate conditions of the TMDL and the new NR 217 regulations, which are new regulations for point source dischargers of phosphorus.

How Will it Affect GBMSD?

At a minimum, the Green Bay Metropolitan Sewerage District (GBMSD) will need to look long term to determine how best to meet the new permit limits, which will be substantially lower than the current limit of 1.0 mg/L. GBMSD will investigate planning options identified in the new code concerning adaptive management and/or pollutant trading. These options will not avoid the new lower limit, but may give GBMSD the opportunity to phase in the necessary investments needed to meet the proposed limit over several permit cycles. The crucial next step will be the delivery of a draft Water Pollutant Discharge Elimination System (WPDES) permit, which is currently expired. At that point, GBMSD can begin detailed planning activities to work through the challenges ahead.



GBMSD School Talks Underway for 2012

GBMSD is again heading out to Green Bay area classrooms, giving presentations to elementary school children as part of its School Talks Program.

GBMSD is a proud sponsor of The Einstein Project, a local non-profit agency that provides affordable and engaging hands-on science materials and teacher training to advance science knowledge, skills and enthusiasm for learning.

This year, GBMSD is sponsoring the Ecosystems unit, which features hands-on experiments, such as creating mini-ecological spheres. In September, GBMSD visited teacher Mary Canadeo's class at Doty Elementary and helped kids create mini water filters (at right).

To request a school talk, please contact Rita Krause at rkrause@gbmsd.org, or (920) 438-1063.



R2E2 Project Update

The Resource Recovery and Electrical Energy (R2E2) Project is currently in the pre-design stage. Expected to go online in 2017, the new solids handling system is being built to replace aging infrastructure, handle stricter environmental standards, and increase capacity. The exciting project reflects GBMSD's vision: to treat wastewater as a resource to be recovered, rather than waste needing disposal. R2E2 is expected to cut GBMSD's annual energy costs in half during the first year, as well as help reduce greenhouse gas emissions.



Pre-design work includes: drafting technical memorandums, obtaining an air construction permit, digester testing, co-digestion waste sampling and testing, and developing design procedures for contracts.

Design will be handled by CH2M Hill and team: AECOM, SEH, Muermann Engineering, Robert E. Lee and Associates, hGA, Marquette University, and the University of Wisconsin-Green Bay.

In Brief:

- **Platinum and Silver for GBMSD!** The National Association of Clean Water Agencies (NACWA) has lauded GBMSD with the prestigious combination of Platinum and Silver Peak Performance Awards. This is the 9th consecutive year that GBMSD has been in 100% permit compliance at its Green Bay Facility.
- **Treatment Operator nets state-wide award.** The Wisconsin Wastewater Operators Association has lauded GBMSD's own **Jacob Becken** (pictured below, at right, with WWOA's Jeff Bratz) with the "Newcomer of the Year" Award, for a criteria which include exceptional enthusiasm for the profession, higher than average growth, and willingness to learn.
- **Construction on site.** GBMSD's Laboratory has temporarily relocated to the its De Pere Facility, in order for updates to be made in heating, ventilation, and air conditioning at the Green Bay Facility. The locally based Miron Construction Co., Inc., is handling construction. The lab is slated to return in six months.
- **What's in a name?** An organization's brand reflects its ethos and vision. GBMSD currently is undergoing a rebranding process, to better communicate GBMSD's vision, and future. The new name will be rolled out in 2013.
- **Rate Methodology.** A lot has changed in the greater Green Bay community, and at the GBMSD since 1972. However, the way GBMSD assesses rates has not changed over the decades. To address continued and future financial and environmental stewardship needs, GBMSD is currently undergoing a rate methodology study. Red Oak Consulting, national experts in this field, have been retained to lead the process with GBMSD's Project Team and a Stakeholder Advisory Group (SAG). Red Oak has designed an evaluation process to rank and score alternative rate methodologies.
- **"Half-time flush" phenomenon: Is it real?** With Packer season in full swing, GBMSD'ers often get asked: during half-time, does GBMSD receive a huge influx of water due to toilets flushing at the same time at Lambeau Field? The answer is no. A half-million gallon holding tank is installed at Lambeau, which stores during peak times, then slowly discharges during off-peak times, releasing the flow in a controlled fashion as it eventually travels to GBMSD.

