

**Milwaukee River Basin TMDLs
Stakeholder Workshop 1
November 14, 2011
Firefly Room, Wauwatosa Library**

Draft Meeting Summary

- *Directory of abbreviations at end of document*
- *Presentations available at www.mmsd.com, click on "Water Quality Research"*

Attendees

The meeting notification was handled by US Mail and email distribution. The WDNR and MMSD provided database information for permit holders, MS4s, municipal and county representatives. SWWT provided listserv and email distribution.

Over 100 people attended the meeting, including staff members from EPA, WDNR, MMSD, SEWRPC, SWWT, and the consultant team.

Introductions and Background (MMSD)

- Welcome
- Background information regarding the project
 - MMSD was awarded federal Great Lakes Restoration Initiative funding for developing TMDLs as a third party on behalf of WDNR
 - Watersheds within the basin: Milwaukee River watershed, Menomonee River watershed, Kinnickinnic River watershed and the Milwaukee Harbor Estuary
 - Three pollutants of concern: total phosphorus (TP), sediment (as measured by total suspended solids, TSS), and bacteria (fecal coliform and/or *E. coli*)
 - Studies will build on data collected and models developed under the SEWRPC Regional Water Quality Management Plan Update (RWQMPU) and MMSD 2020 Facilities Plan projects, collectively referred to as the Water Quality Initiative (WQI).
- Project purpose and objectives
 - Determine pollutant reductions needed to meet water quality standards
 - Establish waste load allocations for those with WPDES permits
 - Development of an Implementation Plan
- Overall schedule
 - September 2012 – Draft TMDL report to WDNR
 - December 2012 – Final TMDL report to WDNR
 - September 2013 – Implementation plan

TMDL Overview and Process (CDM)

- Background
 - Efforts focused on impaired water bodies

- TMDL development and tasks needed to calculate allowable loads and allocate them to the sources that load to each water body
- Water quality and pollution sources
 - Water quality targets: phosphorus, TSS, fecal coliform, *E. coli*
 - Sources and loads: treatment plants, CSOs, industrial dischargers, permitted municipal separate storm sewer systems (MS4s), general NPDES permit holders, Concentrated Animal Feeding Operations (CAFOs), non-point source loads
- TMDL development
 - Stakeholder involvement and public information meetings (including next stakeholder workshop in early 2012)
 - General TMDL development approach
 - Required data for TMDL development
 - Year 2020 baseline data for phosphorus, TSS and fecal coliform from SEWRPC's RWQMPU
 - Next steps

TMDL Development in Wisconsin (WDNR)

- Overview of TMDL Program
 - Explanation of impaired water body, water quality standards and criteria, 303(d) listings, definition of TMDL, Clean Water Act
- Status and Background of TMDL Projects In WI
 - Wisconsin River, Fox River, Rock River TMDL status updates
- Examination of Allocation Process
 - WLA/LA
 - Seasonal differences
 - Allocation schemes
 - Trading is a potential tool
- Implementation of TMDLs
 - Development of implementation plan begins during allocation process
 - Involvement from stakeholders and partners
 - Relationship of TMDLs to permits
 - Examples of allocations from other WI TMDLs
 - Post-implementation monitoring

Perspectives and Questions from Stakeholder Participants

Note: Perspectives from stakeholders were shared during a committee discussion period and after the meeting in individual conversations. The "editor's notes" are answers provided either at the meeting, in individual conversations, or follow-up information deemed beneficial to the committee members.

- Will population differences between the watersheds be considered?
 - Editor's note: All baseline conditions and differences between the watersheds will be considered.
- Is there a website set up for this information?
 - Editor's note: Go to www.mmsd.com and click on "Water Quality Research"
- Are you using year 2020 land use condition?

- Editor's note: Yes
- Are you using the estuary model as well as river models that were developed for the WQI?
 - Editor's note: Yes. The loads from the river models will be input as boundary conditions into the estuary model to account for the upstream loads in addition to the loads from the area directly tributary to the estuary. It is expected that there will need to be some iteration between the models.
- Does the estuary model include both the outer and inner harbor?
 - Editor's note: Yes, both areas are represented in the model.
- The Menomonee and Kinnickinnic watershed models were updated with data through 2008 for the Watershed Restoration Plans. Are you using these models and do you plan to update the other models with updated data?
 - Editor's note: We will be using the WQI models, which were based on data through 2002.
- How will phosphorus from a treatment plant be handled, given that the source of the phosphorus is drinking water collected throughout the service area? Will this be considered a point source or a nonpoint source?
 - Editor's note: This source of phosphorus will be considered as part of the point source discharge from a wastewater treatment plant.
- For the Rock River Basin TMDL, the WLA for general permitted sources was set at 10 percent of the non-permitted urban load. How was the 10 percent determined?
 - Editor's note: The level of 10 percent was determined by WDNR based on the type and distribution of general permitted facilities and non-permitted urban area within the Rock River watershed. An appropriate assumption will need to be determined for the Milwaukee River Basin TMDL.
- Will the two MMSD discharges be included in the TMDL?
 - Editor's note: The Jones Island Water Reclamation Facility discharges within the outer harbor area and therefore will be included in this TMDL effort. (This was answered incorrectly at the workshop and the JIWRP discharge point was later verified as being within the outer harbor.) The South Shore WRF will not be included because it discharges outside of the area under study
- Will there be credit for past efforts to remove pollutants from point source discharges?
 - Editor's note: We are currently proposing that the allowable load for a given reach will be based on streamflow in that reach and the water quality target. A possible approach to allocating the allowable loads to various sources is according to the source's contribution to the baseline load. We are also proposing that baseline point source loads will be set at permit limits. If a discharger is operating below that permit limit, the discharger may not have as far to go towards achieving the wasteload allocation.
- How does the DNR foresee getting the required reductions from agricultural areas given that a cost share is required?
 - Editor's note: Both state and federal funds will be targeted. WDNR is currently developing a water quality trading framework, which will provide additional implementation funding options.
- How many other states have adopted phosphorus criteria?
 - Editor's note: States are at different stages of implementation. It was noted that Florida has adopted phosphorus criteria.
- When will EPA promulgate TP criteria for other states?
 - Other states within Region 5 are in the process of developing criteria.

- Will the 40 waterbodies that were newly listed as impaired due to phosphorus be included in the TMDL?
 - Editor's note: Yes, WDNR's draft 2012 303(d) list will be used to identify impaired waters for the TMDL.
- Loading capacities will be driven by flow. How will the variability in flow (due to seasonality, wet weather, climate) be accounted for?
 - Editor's note: The loading capacity calculations will first assume 100 percent compliance with water quality targets under all flow conditions within the model simulation period. The hydrology will be examined to determine if an alternate compliance frequency is more feasible. The effects on post-TMDL water quality due to climate change will also be investigated by simulating alternate temperature time series in the models with the TMDL loads.
- Will any new water quality data be collected for the TMDL?
 - Editor's note: No, all information for the TMDL will be compiled from existing data sources.
- What will we do to represent the loads in the upper part of the Milwaukee River watershed, where there is less available data?
 - Editor's note: Consideration will be given to various sources of data and the TMDL calculations will include whatever reasonable data is available. Assumptions may be used.
- Will the loads from sources like failing septic systems be included?
 - Editor's note: Loads from failing septic systems are not explicitly represented in the models, but because the models were calibrated to measured values, these loads are accounted for in the modeling.
- How will TMDLs be developed for TSS given that there is not state water quality standard?
 - Editor's note: It is reasonable to expect that TMDL implementation actions that reduce TP to acceptable levels will also reduce TSS loads to an extent sufficient to achieve designated fish and other aquatic life uses. Therefore, the allowable TSS loads for the TMDL are proposed to be calculated for each reach by determining the TSS load that is typically associated with the TP load that meets the phosphorus criteria.
- Will the TMDLs aim to just meet or go beyond the water quality targets? Will more stringent water quality standards be investigated for the variance waterbodies?
 - Editor's note: The TMDLs will be calculated to meet water quality standards. The development team could consider more stringent standards if warranted.
- EPA is promulgating new bacteria standards that will be based on *E. coli*. Will the TMDL be based on *E. coli* for the watersheds (i.e., upstream of the outer harbor)?
 - Editor's note: Because the current water quality standards for the watersheds, and the majority of the collected data and modeling is based on fecal coliform, the TMDLs for these waterbodies will be calculated in terms of fecal coliform. Fecal coliform loads will be "translated" to *E. coli* for the outer harbor because the current water quality standard is in terms of *E. coli* for the nearshore waters. This translation will be done based on the results of an analysis to be conducted by the Great Lakes WATER Institute.
- Are designated uses established for all the waterbodies included in the TMDL?
 - Editor's note: Yes. Designated uses can be found on the WDNR website and will be documented in the TMDL report.
- Will TMDLs be calculated for waterbodies that are not listed as impaired? Will there be LA/WLA for all three pollutants regardless of what the individual segment is listed for?

- Editor's note: We will be developing TMDLs for the 303(d) listed reaches while making sure that the other reaches do not exceed water quality targets in the process.
- Will other point sources beyond what's already permitted be investigated and included?
 - Editor's note: There is no planned investigation of non-permitted point sources. A margin of safety or reserve capacity could be used for non-permitted sources.
- Will new MS4 permits be issued to unpermitted communities based on TMDL results?
 - Editor's note: If the TMDL shows that a significant proportion of load is coming from a non-permitted urban area, WDNR may decide to establish a stormwater permit for the area.
- How will seasonal disinfection exemptions be addressed for the bacteria TMDLs?
 - Editor's note: Seasonal disinfection exemptions will be addressed during TMDL development. The development team will be working on how to represent these exemptions.

Abbreviations

- 303(d) list – A list of impaired waters that serves as a basis for defining the TMDL reaches
- CAFO – Concentrated Animal Feeding Operation
- CDM – Camp Dresser & McKee (prime contractor of consulting firm team)
- CSO – Combined Sewer Overflow
- EPA – Environmental Protection Agency
- LA – Load Allocation
- MMSD – Milwaukee Metropolitan Sewerage District
- MS4 – Municipal Separate Storm Sewer System
- NPDES – National Pollutant Discharge Elimination System
- POTW – Publicly Owned Sewage Treatment Works
- RWQMPSU – Regional Water Quality Management Plan Update
- SEWRPC – Southeastern Wisconsin Regional Planning Commission
- SWWT – Southeastern Wisconsin Watersheds Trust, Inc.
- TMDL – Total Maximum Daily Load
- TP – Total Phosphorus
- TSS – Total Suspended Solids
- WDNR – Wisconsin Department of Natural Resources
- WLA – Waste Load Allocation
- WPDES – Wisconsin Pollutant Discharge Elimination System
- WQI – Water Quality Initiative
- WRF – Water Reclamation Facility