

**TMDL Outline Subgroup Meeting**  
**January 6, 2010**  
**Brown and Caldwell**

**Attendees:**

Blair Corning - SACWSD  
Kelly DiNatale – United Water  
Jim Dorsch – Metro Wastewater Reclamation District  
Sarah Reeves – SP CURE  
Amy Woodis – Metro Wastewater Reclamation District

**General Discussion**

In March 2010, the Division is going to put forward their plan for nutrients in rivers and streams. The dischargers will have to meet these numbers. There are no limits on ditches. The discharges flow through the ditches and then into the lakes.

Will have to do a UAA in first phase, which may lead to development of site-specific criteria.

Metro is going to look at some different scenarios to figure out how to implement the TMDL, because they feel it is not implementable given the numbers that came out of the modeling report. See attached Metro memorandum for more detail. Maybe a group of BMW members could get together to run these calculations.

Want to simplify the TMDL. Refer to modeling report, as appropriate.

**TMDL Outline**

*Problem Description* – this is a phased TMDL and why. How the phasing is reflected in the TMDL. Generally describe the two (or more) phases. Refer to implementation plan for additional information.

*Water Quality Targets* – Would have to define target for Phase 1. Do we need to say something about how we will determine the final target? Schedule for target is in Implementation plan.

*Pollutant Source Analysis* – no changes.

*TMDL Technical Analysis* – Have to reflect phasing. First phase is included here. There is some discussion with regard to keeping specific allocation out of the TMDL and putting it into the Implementation Plan.

*Public Participation* – no changes.

*Monitoring Strategy* – Refer to Implementation Plan. Remove other verbiage.

*Restoration Strategy* – Reference Implementation Plan. Remove all other verbiage.

*Daily Loading Expression* – will need to reflect phasing.

### **Next Steps**

- ✓ **Amy Woodis** will look at what Phased TMDLs included that is different. **Blair Corning** will get example of phased TMDL from EPA.

At the January BMW Board Meeting, we would like to identify all projects, time it would take to do projects, ballpark cost, and the relative priority of each. Maybe use big stickies so we can move them into corrals.

We will finalize number and contents of Phases after we have decision tree complete. Shoot for March 2010 to have the phases nailed down.

Remaining effort on TMDL is language regarding phasing in each part of the TMDL identified above and timing and final phasing of TMDL. The majority of work going forward is the implementation plan.

**Attachment**

**Metro Memorandum**

## **METRO WASTEWATER RECLAMATION DISTRICT**

### **MEMORANDUM**

**TO:** Barbara Biggs, Governmental Affairs Officer      **DATE:** 01/04/10  
Jim Dorsch, Water Quality Officer

**FROM:** Amy Woodis, Governmental/Legislative Liaison

**SUBJ:** Alternative BMW pH TMDL Approach – your input is requested

#### **BACKGROUND**

A draft pH TMDL has been developed by AECOM under the direction of the Barr-Milton Watershed Association. The draft TMDL focuses almost exclusively on total phosphorus (TP) contributions from the Metro District's Robert W. Hite Facility and the Littleton/Englewood Wastewater Treatment Facility as causing or contributing to pH exceedances in Barr Lake and Milton Reservoir. To bring both reservoirs into compliance with the underlying pH standard would require nutrient removal at both facilities near the limits of wastewater treatment technology. Accordingly, the draft pH TMDL would be extremely costly to implement and the results still would not be "guaranteed."

In addition, the impacts of TP loadings from the ditches/canals that discharge directly to the reservoirs have not been considered in the AECOM analysis to date. Strictly speaking, canals and ditches are "point sources" under the federal Clean Water Act and the Colorado Water Quality Control Act, but are exempt from NPDES permitting requirements.

The Water Quality Control Division will be releasing its proposed nutrient criteria for rivers and streams next month. Because the District discharges directly to the River and not to either reservoir, it may make more sense to integrate expected POTW treatment levels to meet those criteria into the pH TMDL development and implementation while also taking into account the "direct" contributions of the ditches/canals to the reservoirs.

Basing the TMDL on needed additional treatment at POTWs and including contributions from the ditches/canals is an approach that reflects more "real world" conditions, i.e., without water rights-based diversions, no POTW effluent would reach the reservoirs. Conditions unique to the ditches/canals likely contribute to overall pollutant loading to the reservoirs. In addition, it is possible that EPA may revise its current Water Transfers Rule, which would require NPDES permits for discharges from canals/ditches to waters of the U.S., which is the case for both Barr Lake and Milton Reservoir.

## PROPOSED ALTERNATIVE APPROACH

For these reservoirs, the pH TMDL must contain load reductions from all identified point sources and non-point sources as well as a margin of safety.

*Wasteload allocations* would be calculated for the following:

- Permitted “point sources,” e.g., POTWs (assuming all must meet the same underlying TP standard for rivers/streams);
- Permitted stormwater sources (also “point sources”); and
- Unpermitted “point sources,” e.g., ditches/canals (which would most likely be a “residual” value assuming that the load allocation for in-reservoir loads is estimated).

A *load allocation* should be estimated for the in-reservoir contribution for both reservoirs.

As with the draft TMDL, the *margin of safety* would be considered as “implicit.”

Phasing would continue to be appropriate, since uncertainties would still need to be investigated. However, in Phase I (through 12/31/2014) it may make sense to investigate a number of load reduction scenarios in the TMDL based upon: (1) projected effluent limitations needed to achieve compliance with rivers/streams TP criteria, and (2) a range of pH standard values (note: the ultimate site-specific pH standard will be determined through UAA-related studies, also conducted in Phase I).

For example:

- Set target pH = 9.0.
- Assume POTWs implement BNR to achieve in-stream TP = 1.0 mg/l. Calculate load reductions based on this level.
- Estimate loads from permitted stormwater and in-reservoir release to the reservoirs.
- Calculate “residual” needed to achieve needed pH; this becomes canal/ditch wasteload allocation. Note: having a ditch/canal allocation would support implementation of in-canal treatment options such as alum drip, infiltration basins, or constructed wetlands, etc.
- Repeat the calculations assuming enhanced nutrient removal is needed at POTWs, e.g., TP = .5 mg/L for example.

This series of calculations could be repeated for several target pH levels, e.g., 9.1, 9.2, 9.3, and whatever an estimated “background” pH level might be (if less than 9.0). This way, a single interim pH standard would not have to be identified in the TMDL, but both EPA and the Division would have an indication of the direction the investigations are headed.

## **NEXT STEPS**

Full internal discussion needs to take place on this approach. Input should be obtained as well from outside counsel. If this approach appears to have merit, then we may want to undertake some draft runs to see how the numbers turn out.