

**Barr Lake/Milton Reservoir Watershed Association
Technical Committee Meeting
Thursday, May 26th, 2016 (9:00am – 11:00pm)
Metro Wastewater Reclamation District, Denver**

Draft MINUTES

In attendance:

Steve Lundt – Metro Wastewater
Laurie Rink –FRICO (phone)
Julie Kinsey – EPA
Kelly DiNatale - United
Linda Chynoweth – Aurora

Guests:

Amy Conklin – BMW
Ken Wagner – WRS (phone)

Everyone introduced themselves.

In-reservoir Treatment Study

Report Update – Ken Wagner reported on payment inadvertently sent to him from Brown and Caldwell. Ken was instructed to send the check back to Brown and Caldwell. **Steve** will send Ken the address and let Sarah Reeves know about the mis-communication.



The group went over the few substantive edits that included comments about how to articulate the details of the Burlington pumps operations. **Laurie** will review the language and let Steve know if there are any additional changes. The report should be ready for finalizing. Ken is still under budget. The report clarified that the internal loading is not as much of a loading source as was initially thought. All the conclusions of the modeling are still valid because the system is dominated by external loading.

Modeling Scenarios

The group brainstormed the modeling options. Ken thinks the external loads may not ever get down low enough to meet the TMDL. Treatment in the canal and the reservoir may be needed. Steve reported that Metro continues to treat for total phosphorus (TP) aggressively. The river standard is 170 ug/L. Metro’s goal is to get to their numbers to 170ug/L using only enhanced biological treatment. Kelly reported that in the Cherry Creek basin, the effluent standard is 100ug/L and some plants are treating to 20 ug/L to 40 ug/L. There is inherent variability in TP concentrations seasonally and geologically. Each increment of removal gets more and more expensive. In the Cherry Creek basin they’re using Alum to get below 200 ug/L of TP. Metro may consider in canal treatment to get down to 100 ug/L rather than adding additional treatment streams at the plant. Metro would be more interested in the Platte Valley Canal than the Burlington at this point, because the pumps are not functional. There is a lot of controversy still over who has to pay to rebuild the pumps.

Integral will need to tweak the internal loading number before running the scenarios. The North Treatment plant's impact of removing the effluent from the smaller plants could be modeled. The northern plant will have tertiary treatment. The smaller older plants are supposed to get down to 1 mg/L of TP but may choose to send their effluent to the Northern Plant. For as many as 25 years, Brighton has been discharging the brine from their reverse osmosis plant into a stormwater system that reaches the S. Platte River. They are being required to change that discharge for their 6 MGD plant. That change may have an impact to water quality.

Other modeling scenarios could include adding in canal treatment removal of 14,500 kg to see if the TMDL in lake standards are met. Additional water in the Bebee pipeline could also be modeled. While Brighton and Fort Lupton will be sending their effluent to the North Plant as soon as possible, South Adams County Water and Sanitation District plans to keep their current plant at its current capacity and only send additional flows to the North Plant. Model scenarios could also include having the Burlington pumps working. It was suggested that the model could be validated by looking at measured water quality values in 2015 compared to modeled scenarios of the Burlington pumps not pumping. In 2015 no effluent was pumped. Comparing what the model predicted to what was measured could be a useful exercise.

A preliminary list of modeling scenarios are:

1. Burlington Pumps are fixed and used
2. BB pipeline running at some reasonable flow numbers
3. Northern plant running at tertiary and taking Brighton and Ft. Lupton, but not S. Adams flows
4. In canal at Barr at 14,500 and at Milton at some reasonable number
5. See if we get to magic 6,000 kg number being sure to adjust internal loading.

Steve will develop a final list for Board consideration. Kelly suggested looking at internal loading and improved treatment and see if we meet TMDL. If planned improvements to POTWs doesn't achieve TMDL standards, then add in in-canal treatment. Laurie clarified that using the model as constructed assumes that the Burlington Pumps are still available. Laurie reminded the group that the Board will need to have a discussion about the scenarios as well.

Adaptive Management

Platte Valley Canal Monitoring – Metro has begun water quality monitoring of the Platte Valley Canal for several reasons; in case in canal treatment is considered for the Platte Valley canal and to measure the impacts of the first flush of stormwater through the system. The baseline established could be particularly useful as the stormwater projects included in the North Denver Cornerstone Collaborative come online.

Data Gathering – CLEAN WRAP data report – Steve set up the BMW data shed but the Metro browser is blocking him from accessing the data to demonstrate the tool. The layers can include soil characteristics, population density, water quality data as well as other information. A limiting factor is the quality of the meta data that creates the layers.

Steve reported that the Board is beginning the process of determining what the next steps should be to implement the TMDL. Julie Kinsey suggested that BMW prepare a summary of what has been accomplished already. **Julie** will look for a template of what other adaptive TMDLs have done to report on their progress.

Linda Chynoweth updated the group on the status of Aurora's Sand Creek Reuse Facility. The facility is a 'scalping' facility. It captures 5 MGD from one of Aurora's interceptors and treats the effluent for reuse on Aurora's green spaces. They only capture a small, but constant part of the flow. In part, because the flows are constant, they have a very efficient treatment process with a discharge TP concentration of 43 ug/L using enhanced biological treatment. They don't treat solids and only treat enough to water the green spaces.

Next Meeting

Tech. Committee: September 22nd, 9:00am to 11:00am at Metro. Steve reported that he will be on vacation for the July meeting and has cancelled it.