

**Barr Lake/Milton Reservoir Watershed Association
Technical Committee Meeting
Thursday, May 18th, 2017 (9:00am – 11:00pm)
Metro Wastewater Reclamation District, Denver**

Draft MINUTES

In attendance:

Steve Lundt – Metro Wastewater

Julie Kinsey – EPA

Linda Chynoweth – Aurora

Elaine Hassinger – Tri-County Health (phone)

Jim Doersch – Metro Wastewater

Al Polonsky – DEH (phone)

Kelly DiNatalie – United (phone)

Guests:

Amy Conklin - Coordinator

Steve welcomed everyone and started introductions.

Modeling Update – what questions do we want answered?

Steve reported that he called Marcia Greenblatt regarding doing some modeling who asked what questions we needed answered. He developed some changes in the watershed from which we could develop a set of questions for the modeler to answer.

- Northern Treatment plant opening – What impact does the change in wastewater treatment in the northern part of the watershed have on water quality, specifically in Milton?
- We have more data – The last update to the model used data through 2010. We now have six more years of data to use to update and refine the model.
- No pumping from the Burlington pumps – No effluent is being pumped directly into the ditch using the Burlington pumps. What impact does that have on water quality in the watershed, especially compared to when the pumps were active?
- More treatment at Metro – In response to Regulation 85 Metro and the other POTWs in the watershed have implemented additional treatment. What impact is that having on water quality.
- More information regarding internal loading – Ken Wagner’s analysis of in reservoir treatment options yielded some downward revisions to the contribution from internal loading. We could model the impact of the reduction in internal loading estimates. We could also model the internal loading assumptions using the research results from studies in OH that showed a much larger contribution from internal loading.
- Stormwater – As the POTWs increase

Nutrient Loading

- Rate of nutrient loading and the total amount of nutrients delivered to an aquatic system drives its primary production
 - Input (loading) versus concentration
 - An input of 1 kg of P put into a lake can grow 10,000 kg of algal, but that 1 kg of P can recycle within the lake up to 40 times; leading to the production potential of 400,000 kg of algal biomass.
- Hence retention in the lake of external P loading is important to understand.

treatment regimes, the contribution of the P load coming from stormwater will increase up to about 30% of the total load. We could use stormwater data to better estimate the contribution from stormwater especially in lieu of Denver Water's potential new source of P from corrosion prevention.

- NH₃ – Because Milton was listed on the 303d list for NH₃, we may want to model it in the watershed.

Steve thinks we have enough ideas and will ask Integral for an estimate. He'll put a value of \$30,000 - \$50,000 in the water quality budget to cover the costs. Ken Wagner could be consulted to provide load estimates and maybe compare with Metro's numbers. Steve already contacted Ken who said across the country people are having trouble with the corrosion prevention treatment. Ken called it *eutrophic drinking water*. Steve noted that Denver Water may be willing to partner with us to campaign to have P banned from fertilizer. Twelve other states already have bans and we could use their experience to guide our effort.

In a recent check at Home Depot, Steve couldn't find many lawn fertilizers that contained P. The manufacturers may be phasing P out of their products without legislation. Results from the 12 states that have banned P in fertilizer have shown that there can be as much as a 20% reduction in P reaching receiving waters when P is banned from fertilizers. **Jim Doersch and Steve** will put Amy in contact with Metro's lobbyist to discuss the potential and process for legislation in CO to ban P from lawn fertilizers. **Al Polonsky** will reach out to the landscapers organization, CALCP, to see if they might be supportive of a P ban in lawn fertilizers.

Steve reported that he recently removed 80 carp from Barr Lake and has 4 more fish shocking days planned. **Steve** will send out a notice to the group to see if anyone wants to volunteer. Overall he has removed 1,300 carp or 30 lbs of pure P.

Denver Water Load Estimate from Corrosion Prevention Program

An easy estimate of the potential load from Denver Water using PO₄ as a corrosion prohibitor would be assuming 70% of the PO₄ goes to WWTPs. In September 2017 Denver Water will submit a report of their analysis of the treatment options for corrosion prevention to CDPHE. If Denver Water uses PO₄ treatment we can work with them to get better estimates of the P loading. They should have some estimate of the amount of water infiltrating from irrigation, running down gutters from other outdoor water use and hydroflushing. We can ask Denver Water to assist in any effort to legislatively ban P in fertilizers. DW can help w P fert ban. Have to label fert as strictly lawn, inorganic fertilizers. 12 other states have already figured out how to do it.

Update Implementation Table & Schedule

Julie will post the IP table to the EPA database when we tell her it's ready. Updating the models can be moved to earlier years. Updating linkages can be done as P gets lower in the lake. In canal Treatment plan should be implemented. Internal loading options, In-reservoir carp removal and the rest are ongoing. **Amy** will update the timeline and send it to Steve for review.

Julie Kinsey informed the group about the differences between site-specific standards, control regulations and Use Attainability Analyses (UAAs). A water quality standard is 3 things; beneficial uses, criteria (the number or narrative), and the anti-degradation status. A UAA explores whether the uses assigned to the water body can be obtained. Currently, Barr Lake and Milton Reservoir have these beneficial uses assigned to them: Municipal drinking water; agriculture; aquatic life,

Commented [KJ1]: I had a question about this... I thought the load would increase via drinking water return (via pipes) to the wastewater treatment facilities (70% of added P would need to be treated by WWTFs, which would increase the loading overall, as all of it can't be fully treated). I thought there was some P in stormwater (from drinking water) due to main leakage, etc., but not enough to constitute a 30% increase in the load. Can Steve clarify this?

recreation class 2, and industrial. Currently there aren't any statewide numeric criteria for P. There are well researched numeric standards for DO and pH, however there is precedence for obtaining site-specific values for both pH and DO. It is important to carefully consider the desired outcomes before beginning a UAA. Julie suggested BMW consult with the state before beginning a UAA. Julie offered to bring some EPA standards staff to present to the Board and/or the Stakeholders about water quality standards. Julie had researched information on standards and sent the link to **Steve** who will share it with the group.

Updates

Storm Water Station at Burlington Head Gate – Steve scheduled meeting with Darren Mollendor for June 22nd. The meeting is with just Darren and not with joint task group. **Steve** will send out meeting invite when he gets it. **Amy and Jim** will go. Steve went over his presentation.

Darren provided the files with the latitudes and longitudes of the stormwater drains in the Montclair sub basin. We will keep working with Caroline to update the stormdrain marking App and Erica to organize stormdrain marking events.

CU-Denver Community-based projects – **Steve** will send to the group the final reports from the Master's students capstone projects. The presentations at the Nature Center were really wonderful. **Amy and Steve** will reach out to the professor and see if we can brainstorm ways to keep the research going in future years. The story map and lawn runoff projects may be particularly useful to BMW.

Next Meeting

Tech. Committee: July 27, 2017