

Barr Lake/Milton Reservoir Watershed Association
 BMW Board Retreat
 April 25th, 2017 9:00 am – 11:30 am
 Metro Wastewater Reclamation District

Minutes

Board Attendance:

Michelle Seubert – CPW
 Shelley Stanley – BDCWA
 Steve Lundt – Metro
 Chris Douglass - ECCV
 Dennis Stowe – L/E WWTP
 Emily Jackson – Metro
 Julie Tinetti – Centennial (phone)
 Blair Corning – S. Adams
 James Bowell – Thornton
 Lisa Hollander – Metro

Ryan Walsh – Denver Water
 Steve Price – Denver Water
 Sarah Reeves – SPCURE (phone)
 Dan Delaughter – L/E WWTP
 Liam Cavanaugh – Metro
 Laurie Rink - FRICO

Public Attendance:

Amy Conklin – BMW Coordinator
 Joe Hogan - Solitude

Steve welcomed the group and everyone introduced themselves. When Laurie arrived, she took over the meeting. Traffic!

Denver Water Report on Corrosion Prevention Program - In response to the drinking water crisis in Flint, MI, drinking water providers across the country are implementing corrosion prevention programs. The program Denver Water is considering includes the use of Phosphate (PO₄) as high as 3 mg/L. Steve and Ryan talked about their corrosion control prevention program and their public outreach activities. There isn't any lead in Denver Water's (DW) source water or pipes owned by DW, which are typically the distribution pipes but not the service pipes connecting customers' homes to the distribution pipes. There may be some lead service pipes and lead in the solder used on the pipes. All service pipes are owned by homeowners. DW estimates about 1/3 of Denver's houses, or about 60,000 homes, may have lead in their service pipes. People can request testing of the water comes out of their taps and some have. Houses built before 1951 are the most likely to have lead service lines. Houses built before the 1980s are most likely to have lead in the solder used to join copper pipes. DW monitors at homes twice a year, collecting 100 samples per event. Total lead in water coming out of the tap must be below 15 ug/l, 90% of time. There is no safe limit for lead, but 15 ug/L is an action level. It indicates if corrosion is or is not a problem.

The samples are collected from single family homes and there are other programs to sample lead in tap water at schools. Denver Public Schools have just finished sampling lead concentrations in tap water at their schools and the analyses are in progress. Littleton and Englewood schools are collecting samples now. In 2012, DW sampling program showed lead in tap water at 17 ug/L, above the 15 ug/L action level. That exceedance triggered notification of customers in the service area, public outreach, and optimization of corrosion control.

The optimization of corrosion control began with a paper study and modeling of lead levels in the DW system. Different corrosion control options were identified and a corrosion control study was begun in October 2015. The study includes a pilot study using lead service pipes

scavenged from the distribution system. There are two concurrent pilot studies, one at the Moffat Water Treatment Plant and one at the Marston Water Treatment plant. The studies are structured to test lead in pipes being fed source water from both Winter Park sources and South Platte River sources.

Three types of corrosion control treatments are being considered; raising pH to 8.8, adding Phosphoric Acid and a silicate based inhibitor. The pilot studies of the three treatments were started in October 2015 and will run through this summer. They will report on the outcomes of the pilot studies to CDPHE in September of 2017. There is no firm schedule for implementation. Whatever treatment is selected will have to be implemented simultaneously at all their water treatment plants to keep the chemistry in the drinking water distribution system consistent. They need to select only one treatment method for all water sources because the system is interconnected. Using different treatments for different water sources would disrupt desired water chemistry. The treatment approaches can be changed but there is a lot of disruption when treatment regimes are changed and an increased chance of lead releases.

Currently, when a house is scraped off and a new house is rebuilt, the owner is required to change out any lead service pipes. Some people voluntarily choose to change out their lead service pipes. The lead in solder and brass pipes is more difficult to identify and replace. DW has begun their community outreach program. All the DW distributors will need to be included in the public outreach effort.

Since 2012, DW's lead values have been consistently between 7 and 12 ug/L. However, the one exceedance triggered the regulatory process and their corrosion control must be optimized to achieve compliance. Because of the situation in Flint MI, there has been a lot of research on lead corrosion and they are convinced there will be a public health benefit from corrosion control optimization. There are some unintended consequences to the corrosion control optimization such as the impact to the BMW TMDL.

If DW chooses the Phosphoric Acid treatment option, the dosage at the tap would need to remain at about 3 mg/L of PO₄ for about a year. After that, they would step down the treatment levels as low as 1 mg/L at the tap as a maintenance dose – this minimum dose has yet to be established. PO₄ concentrations in their raw water are currently about zero. The P in the PO₄ would be about 1 mg/L. The PO₄ treatment should reduce concentrations of other metals as well. Concentrations in tap water from homes closer to the plant may be higher than those farther away. The program may start as soon as early in 2019. They are not doing a full life cycle analysis of the treatment options and are very interested in the back end treatment costs from the POTWs. They are hoping to select the best treatment option using a holistic approach.

BMW encouraged DW to include us in their public outreach and education program. There may be some opportunities to leverage each other's work. They were also encouraged to re-engage with BMW. DW had been a founding member of BMW and have been absent for the last few years. The corrosion control optimization program may be an opportunity for them to re-engage with their watershed.

The BMW board discussed the option of moving up the modeling effort. The DW corrosion prevention program could be a new source of P to be included in the modeling and the TMDL. Irrigation return flows and hydro-flushing may become larger sources of P than previously thought. Because DW will report to CDPHE in September, we may want to conduct some modeling in time to be included in the decision making to select a treatment option. The Board voted Thumbs up to send the issue to the **Technical Committee** to recommend how to approach the modeling effort, perhaps contact Ken Wagner and develop a set of questions for DW.

DW’s public outreach campaign will need to be expanded to include more than just their direct distributors. Because of the WISE project, the impacts of the corrosion control optimization program may impact other water providers not directly in the DW service area, such as ECCV. The **Board** thought a **joint meeting with BMW, DW and CDPHE** would be very helpful if it looks like the phosphoric acid option is rising to the top

Updates/Action Items

- Chair’s Report - Laurie had nothing to report.
- Treasurer’s Report - Shelley reported that all expenses are within budget. The only line item in the budget that exceeds the estimate is the amount we spent to support the Aquatic Nuisance Species effort. Membership Dues have been sent. The mini-grant application for the inflatable dog poo was not successful. She will be earmarking money in next year’s budget for the balloon. The **Board** will need to review the budget one more time before the final vote in July. **Amy** will put it on the agenda for May. Draft budgets from the **Technical Committee and I & E Committee** should be sent to Shelley as soon as possible.
- Update on Regulation 85 and 31 discussions. Emily Jackson reported that the roadmap for implementation of Regulation 31 is to establish statewide chlora values for lakes and reservoirs with swim beaches and that are direct water supply sources by 2022. By 2027, values will be established for any remaining water bodies as well as NH3 and Se values.

March expenses - paid	
3/9 T shirt machine	\$ 189.99
3/13 Post for Picture Post	\$ 23.69
Check 1947 - SPLASH membership	\$ 100.00
1948 - Amy Conklin, Jan 2017 Coord Svcs	\$ 3,848.75
1949 - CU Denver, Graduate Students Capsone projects	\$ 1,500.00
1950 - CMF membership	\$ 4,850.00
1951 - CPW ANS inspection program	\$ 5,000.00
1952 - NALMS sponsorship	\$ 1,500.00
1954 - Amy Conklin Feb 2017 Coord svcs	\$ 3,120.00
Total	\$ 20,132.43
April Checks to sign	
1955- Amy Conklin - Mar 2017 Coord Svcs	\$ 5,609.85
1956- Amy Conklin Mar 2017 Bike Tour Mini Grant	\$ 331.25
Total	\$ 5,941.10

An incentive program for achieving proposed Reg. 31 values has been discussed but the talks are breaking down. The Clean Water Act doesn’t easily accommodate inclusion of an incentive program. The regulated community is considering drafting an alternative proposal for CDPHE’s consideration. . **Emily** will report back to the Board on progress to develop an incentive program. All the progress the POTWs are making toward compliance with Regulations 85 and 31 work toward the goals of the BMW TMDL.

- Segment 14 Permitting – there have been no new applications for groundwater dischargers in Segment 14. The implementation of converting some of the permits from general to individual is ongoing. **Dan** will continue to report to the Board about progress in this area.

- Coordinator Updates (Amy C.) There was a Thumbs Up approval of the February 28th meeting minutes. **Amy** will also finalize the January 24th Meeting Minutes with Emily's comments. Amy updated the group that the bike tours were full and taking names for the waitlist. The dry run of the bike route identified some timing and construction issues that require minor revisions to shorten the route. The report on the website will be moved to the May meeting. **Amy** will convene the By-Laws committee to review if the by-laws match our practices. The group discussed where to hold Board meeting, Metro or Barr Lake Nature Center, and concluded that most of the meetings should remain at Metro because of its central location.
- Thank you celebration for Dennis Stowe retirement – Everyone thanked Dennis for his strong leadership and for bringing Dan to the meetings. While no one can replace Dennis, Dan will be a good successor.

Continuing Implementation – The Board agreed that the Implementation Plan as revised was adequate for now and would be reviewed again in November. The **Technical Committee** will also review the IP, revise the timeline, and report to the Board.

Julie Tinetti reported that Centennial has requested an extension to their permit compliance schedule. The extension will enable them to complete and incorporate their 20 year master plan. The change is primarily administrative and pushes the time frame for compliance out a year. Julie requested that anyone interested in commenting on their extension contact her first. **Julie** will send their Master Plan to Laurie.

Stormwater Monitoring Station – Steve updated the group that he is having trouble setting up a meeting with the stormwater monitoring task force. **Steve** will proceed calling a meeting and hoping the task force members will attend.

I&E Committee Report - Steve reported that he attended the Cole neighborhood meeting and was well received. They invited him to return in July to present them with water quality information. The Picture Post is almost up and running. **Steve** will send Amy a link to the website where photos will be uploaded. **Steve** will send out the survey results from one of the CU capstone projects. Their presentation will be **May 10th at the Barr Lake Nature Center**. He asked if the I & E Committee should build a traveling display with the materials left over from the DIA exhibit. We will consider putting the intern, Erica Wenzel, in charge of that effort. **Michelle** requested volunteers for the **May 6th Fishing Clinic from 8 am to 1 and the May 11 Tri-City Festival**. Please contact Michelle if you can help out.

Technical Committee Update – Steve conducted a webinar about water quality and had about 120 people online. The 2016 Water Quality parameter summaries are posted to the website.

Next Meetings

- I/E Committee Meeting – **May 2nd, 2017 9am, Barr Lake Nature Center**
- CU Denver Graduate Capstone Presentation – **May 10th, Barr Lake Nature Center**
- Technical Committee meeting – **May 18, 2017, 9 am, Metro**
- BMW Board meeting – **May 23rd, 9 am, Metro**
- Bike Tours/Watershed Tour – **June 6th, 9am – 1pm; June 7th, 1 – 5 pm**

BMW I/E Events for 2017

Date	Event	Activity	Name and contact
Saturday 5/6/17	Barr Lake Spring Fishing Clinic	T-shirts, Booth	
Saturday 7/15/17	Lake Appreciation Day	T-shirts, Booth	Steve L., Michelle S.
Saturday 8/10/17	Commerce City Neighborhood Event	T-shirts, Booth	Steve L., Michelle S.
Friday 5/?/17	End of School Event	Demonstration	Steve L., Michelle S.
5/11/17	Tri-City Water Festival	Speak	James and Michelle S.
Thursday 5/18/17	Aurora Water Festival	Speak	
Friday 7/26 - 8/1/17	Adams County Fair	T-shirts, Booth	Shelley Stanley
6/3/17	Brighton Culture Fest	T-shirts, Booth	
9/?/17	Nat. WQ Awareness Week	T-shirts	
Saturday 9/9/17	Barr Lake Fall Birding Festival	T-shirts, Booth	
10/10-12/17	Watershed Assembly Conference	Booth, speak	
Saturday 9/30/17	Barr Lake Shoreline Cleanup	Pick up trash	
Saturday 10/14/17	Barr Lake Harvest Festival	Help out	
Saturday 10/28/17	Barr Lake Halloween Trail	Help out	