

Meeting Minutes

Drinking Water Advisory Group Monday, August 4, 2014

Location: Kent, WA with video conference to Spokane and Tumwater
Time: 9:00 am – 12:30 pm

1. Clark Halvorson: **Welcome and emerging issues**

- Discussion for today's meeting:
 - Heather Bartlett's presentation of Ecology's Water Quality program
 - Optimization panel discussion
- Updates:
 - Amazing wildfire response from our Eastern Regional Office (ERO) and Doug Hale.
 - Our satellite management agencies (SMAs) and operators played a large role across the state.
 - During this crisis, we utilized our [DW Alerts webpage](#).
 - Continuing discussions about our Drinking Water State Revolving Fund (DWSRF) loan program.
 - Developed a joint decision package with the Department of Commerce and we're looking at how we make the program more sustainable for the future.
 - The EPA could potentially not fund the program in two years.
 - Working to identify inefficiencies involved in processing loans.
 - Want to make the DWSRF program as lean as possible.
 - We recently met with the Utilities and Transportation Commission (UTC) to better define their role.
 - We will release a new communication tool in September.
 - A new newsletter called H₂Ops, targeting operators.
 - This is an area many utilities want to see improvement.
 - Every waterworks operator and public water system will receive a hard copy.
 - Cynthia Nelson (our new water resources lead) and our Policy unit will look at water resources beyond our current Water Use Efficiency scope.
 - Restructuring and consolidation feasibility studies.
 - Worked hard to identify more funding (\$55,000).
 - Have a diverse group of projects.
 - We'll have our final decision on funding by August 11, 2014.
 - Identified 14 projects that can consolidate by paying connection fees.
 - In fall, we'll have funding ready to move forward with restructuring and make consolidations happen.
 - You'll see more information about this across the state.

2. Heather Bartlett – Department of Ecology: **It's the Water (Quality)**

- Some elements of this topic came from Drinking Water and others I came up with to plant a seed. Additional interest, can foster a more lengthy discussion.
- Ecology (ECY) has three significant funding sources.
 - Clean Water State Revolving Fund (CW SRF) is a loan and the other funding sources are grants.
 - Next CW SRF funding cycle is fall 2014.
 - Can apply for funding source online through ECY's Eagle System, one stop shop, to all of our available funding (grant or loan) sources.
 - Our program mirrors the Drinking Water loan timeframe. (See her handout for more information).

a. Non-point pollution

- Created the Water Quality Agriculture Advisory Committee to improve relationships.
- ECY wants the agriculture industry to understand their role, so the group can identify potential business practice changes.
- Developing this relationship allows ECY to be supportive of the agriculture industry protecting water quality while helping the industry maintain their viability.
- Water Quality Agriculture Advisory Committee alternates meeting sites between eastern and western Washington.

Question:

Are you mainly dealing with pesticides, herbicides, and animal manure in the agriculture industry?

- Yes, our main focus is on manure handling. It's often the timing that affects surface water and groundwater.

b. Total Suspended Solids & Total Dissolved Solids

- Total Suspended Solids (TSS) – solids retained on the filter
- Total Dissolved Solids (TDS) – materials passing through the filter
 - The Columbia Basin issue revolves around TDS.
 - An issue because of the climate combined with the geography (land).
 - The basin recently experienced a culture change due to the increase of high tech companies in the area.
 - Companies have access to a lot of water, cheap power, and land.
 - The basin typically gets 5-20 inches of precipitation per year, but this year has been warmer and dryer than usual.
 - Large scale irrigation practices create an interesting challenge.

c. What are we doing to address TDS?

- Acknowledging the challenge.
- Working with the industry to develop a TDS guidance document.
- Evaluating what others have done.

Questions:

Is this largely a drinking water issue at this point?

- For some with wastewater discharge it is getting to the point that large scale continuation of business could make the land less fertile.

d. Kathleen Emmett– Reactivating reclaimed water rulemaking

- In 2006, the Department of Health and ECY were tasked by the Governor to create a rule about reclaimed water use.
- Reclaimed water is not for potable use.
- ECY was in a rulemaking moratorium until 2014 so we're picking this rule up again.
- The rule feels new because there are many new players at the table.
- We're treating the rule as if we're starting from the beginning.
- Working now to select an advisory committee.
 - The most contentious issue is water rights.
 - Worried about the lack of water in streams and its impact.
 - Tribes have significant concerns. Plan to meet with them early on to resolve issues.
- Denise Lahmann is the representative for Health.

3. Stephen Baker – Department of Health: Optimization (panel discussion)

Panel members from Cities of Everett, Tacoma, Pasco, and Lake Whatcom Water and Sewer District.

- In 1968 the American Water Works Association developed a turbidity standard.
- In January 1995, we asked, what can we do to minimize the public's contact with *Cryptosporidium*?
- Today's panel members are operators who have maintained their .1 NTU turbidity level for many years. Panel members include:
 - Jozsef Bezovics – City of Tacoma
 - John Stokes – City of Everett
 - Gary Graves – City of Everett
 - Kevin Cook – Lake Whatcom Water and Sewer District
 - Reuel Klempel – City of Pasco
- Three questions for the panel:
 - 1) *What was your ah-ha moment when you had an awakening discovery at your plant?*
 - *City of Everett* – We have quite an extensive list. Filters were started right away, but we are still working on them.
 - Other items: Manually batching, equipment inaccuracies, general tightening up, and looking at what we thought we knew.
 - Approached it as if we were starting from the beginning and tweaked one thing at a time.
 - This allowed us to identify problems we could immediately fix.
 - *Lake Whatcom* – We switched to variable frequency drive (VFD) pumps raw water pumps.
 - Gradual ramp-up was a big benefit to avoid spikes.
 - Have a lot more control to get the most gallons per minute (GPM) out of our filters.
 - *Pasco* – Ran into a filter problem during testing with alum and realized we had no way to shut the filter off.

- In 2007-2008 we changed all filters so they had automated valves.
 - Now we're able to backwash the filter and install turbidity meters on all of them.
- 2) *What unique challenges do you face in maintaining optimization?*
- *City of Everett* – Observation.
 - Have been able to save \$40,000 alone by tweaking.
 - Remember: The process is ongoing – you can always run your system a little bit better.
 - Researching tools for improved floc formation, evaluation of coagulants, filter performance, and regular optimizing.
 - Learned that a conditioned filter run on a proper cycle will give you better results and savings all around!
 - *Lake Whatcom* – Consumption or high use.
 - We have leeway as to how many GPM we put through our system.
 - There are three basins in Lake Whatcom and basin two had an algae problem; we are on the lookout to make sure it doesn't move.
 - *Pasco* – Funding for capital projects.
 - Keeping the chlorine residual maintained across the basins.
 - City has a big flow differential between winter and summer months.
 - *Tacoma* – To maintain 0.1 NTU for each filter.
- 3) *Do you have recommendations for other systems who are striving to achieve optimization or maintained optimization?*
- *Everett* – Take a look at whatever you suspect may not be optimized and break it down to each step of the process.
 - Pick it apart – don't go on what someone told you years ago. Then brainstorm with operators on what is and isn't working.
 - Apply literature and don't be afraid to fail; don't get caught in the box of complacency.
 - Tap into people who have the opportunity and equipment. Learn from us, we believe in a regional approach so feel free to give us a call at 425-257-8200.
 - *Whatcom* – We have the source and plant so optimization isn't a choice for us, it's an obligation to our customers.
 - Do what you can to protect your source.
 - VFD pumps helped us tremendously.
 - Conservation – fix your leaks and get customers to be efficient in their water use.
 - Find your filter sweet spot to help them operate better and keep the turbidity level down.
 - Set alarms on your SCADA to catch a problem before it gets out of hand and watch turbidity trends.
 - *Pasco* – The calibration of your equipment.

Panel member comments:

- *Everett* – Offer tours of your system for council members/elected officials to get them on board with projects.
- *Whatcom* – Management support for staff training.

- *Everett* – Tours for the public to show what you do. Public understanding goes a long way.

Questions:

What are you doing for succession planning?

- *Everett* – That is a point of concern for us. We have hired quite a few younger operators, but a major issue we run into is that most level 3 & 4 operators aren't young.
- *Whatcom* – As a smaller system, we need to get younger guys into the plant more – sooner rather than later. We need to be more cognizant of this.
- *Pasco* – With current rules, it is difficult to find good quality operators.

4. Clark: **Queuing up the next meeting**

- We will be able to share additional topics and information about what we've heard from EPA.
- *Our future topic ideas:*
 - Storage tanks and how we regulate their cleanliness
 - Fluoride management
- *How often should we meet in 2015?*
 - Every other month except for during legislative session.
 - Schedule dates toward the end of the month instead of the beginning.
 - Continue having video conference locations available.
- *Future topics:*
 - Please send us an email if you have a topic you would like to hear about or discuss.
 - Will continue with rule updates.
- *Feedback:*
 - Great topics today.
 - The future of the DWSRF program is an interesting issue. Would be good to get more information during an upcoming meeting. There are efficiencies water utilities would like to hear about.
 - Update or discuss the difference between the unmet need and funds available.

Next meeting:

- Monday, November 3, 2014
- Time – 9 a.m. – 12:30 p.m.