

WATER POLLUTION CONTROL ADVISORY COUNCIL
10:00 am, March 11, 2022
Room 111 DEQ Metcalf &
Zoom Meeting

DRAFT MEETING MINUTES

PRESENT

Council Members Present:

Amanda Knuteson (Chair)
Ron Pifer (Vice Chair)
Chad Bauer
Lee Bruner
Eric Campbell
Shannon Holmes
Mike Koopal
Jeffrey Mark
Teri Polumsky
Adam Pummil

Council Members Absent:

Dennis Teske

Montana Department of Environmental Quality Staff Present:

Darryl Barton
Nick Danielson
Maira Davin
Rainie DeVaney
Amelia Flanery
Theresa Froehlich
Meagan Gilmore
Heather Henry
Melinda Horne
Jon Kenning
Greg Montgomery
Hannah New
Greg Olsen
Maya Rao
Lauren Sweeney (WPCAC Coordinator)

Members of the Public Present:

Leea Anderson – City of Helena
Brian Balmer – USFWS
Tim Burton
Jeff Briggs

Greg Bryce
Tonya Fish
Derf Johnson
Brian Heaston
Scott Mason
Vicki Marquis
Jason Mohr – WPIC
Andy M
Peggy Trenk
Doug – Ash Grove
Alan Olson

CALL TO ORDER

Chair Knuteson called the meeting to order.

APPROVAL OF AGENDA

Chair Knuteson moved to approve the agenda, and Jeff Mark seconded the motion. All were in favor. Chair Knuteson stated the agenda was approved.

APPROVAL OF MINUTES

Chair Knuteson moved to approve the January 28, 2022, meeting minutes, and Teri Polumsky seconded the motion. All were in favor. Chair Knuteson stated the minutes of January 28, 2021, were approved.

BRIEFING ITEMS

PowerPoint presentations for briefing items can be accessed through the hyperlinks in this document and are located on the WPCAC website.

Implementation of Narrative Water Quality Standards – Rainie DeVaney, MPDES Section Supervisor

- Narrative water quality standards are criteria that describe the desired conditions of a waterbody
- ARM 17.30.637 includes many of Montana narrative water quality standards
- Three examples of the narrative water quality standards and implementation in the MPDES permits: WET, Oil and Grease, Nutrients

Narrative Standard – State surface waters must be free from substances attributed to municipal, industrial, agricultural practices or other discharges that will create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life.

Whole Effluent Toxicity Testing – Aggregate toxic effect of mixture of pollutants in effluent. Measure response of exposed aquatic organisms.

- a. **Monitoring** – WET: Acute Toxicity monitoring is required once a quarter
- b. **Effluent Limits** – There shall be no acute toxicity in the effluent discharged by the facility. Demonstrated by quarterly WET tests using two species.

Oil and Grease Narrative Standard – State surface waters must be free from substances attributed to municipal, industrial, agricultural practices or other discharges that will create floating debris, scum, a visible

oil film (or be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials.

- a. **Monitoring** – Oil and grease is monitored on a weekly basis when the facility is discharging.
- b. **Effluent Limits** – Numeric maximum daily effluent limit for oil and grease of 10 mg/L. There shall be no discharge which causes visible oil sheen in the receiving stream.

Nutrients Narrative Standard – State surface waters must be free from the substance attributed to municipal, industrial, or agricultural practices or other discharges that will create conditions which produce undesirable aquatic life. (Two examples)

- a. **Monitoring** – Monthly monitoring for total nitrogen and total phosphorus
- b. **Effluent Limits** – There shall be no discharge from July 1st through September 30th
- c. **Monitoring** – Weekly monitoring for total nitrogen and total phosphorus concentration and load
- d. **Effluent Limits** – Limits are capped the load of total nitrogen and total phosphorus based on facility performance

Questions from the Council

1. *What kind of critters are you sampling for? Algae?*
Two test species for the WET are Fat-head Minnows and *Ceriodaphnia*.
2. *Is it correct that you cannot have narrative without some sort of numeric standard attached?*
There are a lot of examples where a narrative water quality standard can end up in a translation to a number, however there are instances where that isn't the outcome. Numbers are definitely an outcome.
3. *Was there an intent to open the door for DEQ to regulate on more a watersheds specific basis to establish numeric criteria that might vary from watershed-to-watershed?*
Through the nutrient workgroup process, they are working through the details on how to implement our narrative water quality standard for nutrients. The inclusion or use of numbers is not precluded simply because we are working through the process of interpreting a narrative water quality standard.

Lead Regulations that Affect Montana's Drinking Water – Greg Montgomery, Lead in School Drinking Water Rule Manager

Greg provided an overview of the Lead and Copper Rule which is focused on protecting public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity.

- Lead – can cause damage to the brain, red blood cells, and kidneys. Children are the most at risk. Can cause behavior and learning problems, lower IQ and hyperactivity, slowed growth, hearing problems and anemia.
- Copper – can cause stomach and intestinal distress, liver and kidney damage, complications of Wilson's Disease.

Sources of Lead in Drinking Water – copper pipe with lead solder, lead service line, faucets, galvanized pipe, lead goose neck.

Lead and Copper Rule (LCR) – EPA established the LCR in 1991 to protect public health and reduce exposure to lead in drinking water. Focused on minimizing lead and copper levels in drinking water, primarily by

reducing water corrosivity. LCR applies to community and non-community non-transient PWS. EPA requires water systems to test for lead at the tap in certain homes, including those with lead service lines.

Lead and Copper Rule Revision (LCRR) – major revision on December 16, 2021, with an implementation date on October 16, 2024. The LCRR adds a significant number of new requirements on the water systems and the state.

Lead Reduction in School Drinking Water Program – In January 2020, Montana Department of Public Health and Human Services (DPHHS) adopted amendments to the administrative rules regarding the matter of health in Montana schools. The amendments included requirements pertaining to reducing lead in schools’ drinking water. It requires all school accredited by the Montana Board of Public Education to sample for lead in schools’ drinking water.

Questions from the Council

1. *What is the delineation between testing for lead in schools, day cares, etc. and the public (small communities and large communities) and are both covered by legislation?*

Yes, by the two separate rules. The federal rule applies to both large and small communities. They all have to comply with the 1991 federal lead and copper rule. The state lead in school requirement only applies to accredited schools in Montana.

2. *Did this bill provide any funding?*

The bill itself, did not for the school program, however there is a grant from the EPA that covers all the sampling costs. Currently there is a small reimbursement program we work with OPI for remediation costs. Currently schools can apply, up to \$1000 reimbursement. This is a first come – first serve, based on what limited funding we have. The infrastructure bill that passed last fall, did extend our grant program by 5-years. We also can use that for remediation.

3. *Are the remediation costs covered in public schools?*

There is no deadline for repairs, but they need to go through our process. There is the small reimbursement program that they can apply for. We are not sure what Montana’s allocation is for the 5-year grant extension.

4. *Under the rule revision for lead and copper testing, does this also apply to in-home licensed childcare or is it just for commercial facilities?*

The way it is worded, it is up to the state how they license it, but for Montana DPHHS, it is any licensed facility, whether at-home or commercial.

PWS Monitoring Basics – Eugene (Gino) Pizzini, Monitoring and Reporting Section Supervisor

Gino provided an overview of the public water supply (PWS) monitoring requirements.

Monitoring in PWS is based on risk. Some of the most common factors that go into that are:

- System Type
- Contaminant Classification
- Source Type

- Sampling Location
- Sampling Frequency
- Waivers

System Type

- Public Water System – approximately 2200. Serves water to 15 service connections or 25 persons per day for at least 60 days per year.
- Community – approximately 750, residential (year-round) city/town, subdivision, nursing home.
- Non-Transient – approximately 250, same consumers, school, workplace, church.
- Transient – approximately 1200, varied consumers, bar/restaurant, rest stop

Contaminant Classification

- Acute – single exposure may cause death or harm
- Chronic – long-term exposure may cause death or harm (carcinogens)
 - SOC (Synthetic or Semi volatile Organic Chemical)
 - VOC (Volatile Organic Chemicals)
 - IOC (Inorganic Contaminants)
 - Disinfection By-Products
 - Lead and Copper
 - Radiological's

Source Type

- Ground water
 - Wells, most of our sources
 - Monitor and treat as necessary
- Surface water
 - 70+ systems serving ~45% of our population
 - Treat and then monitor to ensure treatment was effective

Sampling Location

- Source sampling
 - IOC, VOC, SOC, Rads
- Distribution sampling
 - Total Coliform, Lead and Copper, Disinfection By-Products

Sampling Frequency

- The ACUTE contaminants are monitored generally routinely
 - TCR is monthly with some transient systems allowed quarterly
 - Nitrate is annual
 - Nitrite is 1/3 years
 - Or a system may just do an annual N+N to meet both requirements
- The CHEM/RADS are generally monitored under the Standardized Monitoring Framework
 - Sample at each source or common header
 - All active sources
 - Specific periods of time

Waivers

- a. Statewide Waivers
- b. System Specific Waivers

Questions from the Council

1. *Regarding the asbestos pipe, in the Bitterroot valley ranching area, those systems were put in the 1960's, and a lot of the junction boxes are being removed, but not sure if we are sampling. There are 2200 public water-supply systems, how does the compliance work?*
A bar/restaurant is not required to do asbestos testing. Asbestos testing only applies to communities or non-transients. We used to have a monitoring schedule tool, but the problem is as our monitoring data base has changed over time, the coding isn't working correctly and it has had a cascading failure and increasing errors has caused us to stop using it. We have not been able to figure out why it is not working. We have a program where we allow systems to voluntarily give us their name and contact information and we will send out a preprogram message reminder. Communities and non-transients are required to have a certified operator, and systems depend on the certified operator for testing.
2. *Most of it is self-compliant and they are responsible for the cost of testing?*
That is correct. There are strict liability laws, so if you meet the definition of a public water supply system, you are supposed to know that you meet that and you are supposed to know that you must comply with all the requirements.
3. *Gino added – I think there was question from a councilmember regarding Superfund sites from the last meeting. Superfund sites don't necessarily play into our monitoring requirements. If a system is proposing to construct a public water supply at a known superfund site, that issue comes up and is addressed through the engineering review process. If a system is in place, and suddenly there is a superfund site placed around them, it doesn't really affect the monitoring unless we see one of our regulated contaminants showing up in the well. So even if there is something showing up from a plume, that we don't regulate, we are unable to do anything about it, but if a regulated contaminate changes due to the plume, the system would be required to do additional sampling, and if the level is high enough, they may have to install treatment.*
4. *With regard to Roundup, is it correct that the biological decay is pretty quick?*
Yes, it breaks down in the environment pretty quickly and my guess is that is why we don't see it in public water supplies.

Gino pointed the council to the [Glyphosate and State Wide Waivers fact sheet](#) that can be found on the WPCAC website under meeting materials.

There were no other questions from the council or public.

Septic System Issues and Solutions – Ron Pifer, WPCAC Vice Chair & Environmental Scientist

Ron provided a presentation on biological solutions to septic problems, specifically probiotic bacteria.

Septic Issues:

- Approximately 40-50% of Montana homes use septic systems and leach fields
- Many of the units are not properly maintained, biologically, or are not pumped out on a regular basis
- Macro-nutrients, such as phosphate and nitrate, minerals, organics, pathogens, and other constituents can contaminate the groundwater, aquifer impacting nearby wells
- Can contaminate groundwater flow from septic fields and impact nearby surface waters in late summer, adding phosphates and nutrients to stimulate nuisance, or harmful, algae blooms.

Ron provided an overview of a conventional septic system and noted how the use of biologicals can assist in reducing the scum at top, the effluent in middle, and sludge at bottom of the system.

Biological Solutions to Organic Pollution:

1. State-of-the-art Biological System with Solar Aquafarms, Inc.
 - a. Engineered greenhouse-covered lagoons with 2 patents;
 - b. Biological systems for treating organic waste from shrimp, fish, or humans;
 - c. Featuring extensive surface areas for microbial action with beneficial bacteria and invertebrates, and floating aquatic plants; and
 - d. Producing over 90% water recycling and wastewater treatment.
2. Small Aquaponics Facility for growing fish, plants and combining aquaculture and hydroponics.
3. Using Beneficial, Probiotic Bacteria with **Septic Solutions**, which digests fat, oil, and grease; surface scum; effluent; organic sludge; and helps keep drain fields clean and operational.
4. **Septic Solutions** has the same probiotic formula as **AquaPros™**, which is a pond treatment; and was found to digest 2-3 inches of organic sludge per month during the Montana summers.

Integrated Septic Solutions:

Use a combination of regular Biological Treatments and Pumping.

Suggestions:

1. Ask Montana legislators to pass legislation that could help pumpers with de-watering issues, solid - waste disposal, and expanding facilities to take the pumping effluent;
2. Support the re-activation of the Septic Tank Pumper Advisory Council, in order to provide the industry voice to the appropriate government agency or agencies; and
3. Provide a government list of companies or products that provide microbial solutions to Septic System Maintenance, in order to assist the public and reduce negative impacts on Non-Point Source Runoff, and combine that list with available septic pumpers, in order to provide a more complete listing.

Questions from the Council

Councilmember Holmes noted his appreciation for the informative presentation. He elaborated that the conversation with septic haulers is very applicable in Park County and around the Livingston area and that land application sites are becoming few and far between. This last year had Park and Gallatin County wanted to discharge septic into the main treatment facility and it was discovered that it had a very negative impact on the treatment process. So much so, that they put a moratorium on septic receiving effective February 2022. Discussions with the local haulers took place and will continue to take place and this is going to be a big problem statewide that needs to be addressed. This is going to be a discussion we need to be aware of statewide and continue to talk about.

Public Comment/Questions

There was no public comment.

AGENDA ITEMS

- Update on the Nutrient Workgroup Proceedings
- There will be topics suggested in January that will carry over to the May meeting.

ADJOURN

Chair Knuteson made a motion to adjourn the meeting. The motion was seconded by Ron Pifer and passed unanimously. The meeting adjourned at 11:45

DRAFT