

Minnesota 3M PFC Settlement

Agenda for Drinking Water Supply Technical Subgroup 1 Meeting

Wednesday, May 15, 2019

1:00 p.m.-4:00 p.m.

Cottage Grove City Hall — Training Room

12800 Ravine Parkway South, Cottage Grove

Meeting Purpose: Provide updates and check-in on planning activities; provide updates on the drinking water model and the groundwater Conceptual Site Model; discuss next steps on the development of the Conceptual Drinking Water Supply Plan.

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| 1. Welcome | Jason Moeckel – DNR Gary Krueger – MPCA Milt Thomas – MPCA | 1:00 pm |
| 2. Updates a. Work groups – long-term O&M and precautionary measures b. Ion Exchange pilot study c. Lake Elmo and St. Paul Park projects d. Expedited projects | Jason Moeckel – DNR Gary Krueger – MPCA | |
| 3. Check-in and feedback on: a. April 17 meeting b. April 30 Woodbury City Council Mtg c. Other items? | Jason Moeckel – DNR Gary Krueger – MPCA Milt Thomas – MPCA | |
| 4. Update on Project 1007 | Rebecca Higgins – MPCA Daryl Beck - AECOM Ginny Yingling – MDH (questions) | |
| 5. Conceptual Drinking Water Supply Plan (Part A): Update and progress on drinking water modeling | Erin Daugherty – Wood Hannah Albertus-Benham – Wood Terill Hollweg – Abt Associates | |
| 6. Comments and questions | Milt Thomas – MPCA | 2:20 pm |
| 7. Break | | 2:30 pm |
| 8. Conceptual Drinking Water Supply Plan (Part B): Update and progress on groundwater modeling effort | Jim Feild – Wood | 2:40 pm |
| 9. Recent climatological conditions | Kenny Blumenfeld – DNR | |
| 10. Upcoming tasks, interim deliverables, homework, and timeline | Hannah Albertus-Benham – Wood | |
| 11. Next steps: Upcoming meetings and review/request for specific agenda items | Terill Hollweg – Abt Associates Jason Moeckel – DNR Gary Krueger – MPCA | |
| 12. Comments and questions | Milt Thomas – MPCA | 3:50 pm |

**Minnesota 3M PFC Settlement
Drinking Water Supply Technical Subgroup 1 Meeting
May 15, 2019 Meeting Notes**

Group members in attendance:

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| Brian Bachmeier | Stu Grubb | Tony Runkel |
| David Brown | Jon Herdegen | Stephanie Souter |
| Chris Bryan | Greg Johnson | Jim Stanton |
| Ryan Burfeind | Gary Krueger | Ryan Stempski |
| Dan DeRudder | Jason Moeckel | Richard Thron |
| Stephen Ebner | Matt Moore | Jim Westerman |
| Jack Griffin | Karla Peterson | |

Presenters:

- Jason Moeckel, Minnesota Department of Natural Resources (DNR)
- Gary Krueger, Minnesota Pollution Control Agency (MPCA)
- Rebecca Higgins, MPCA
- Daryl Beck, AECOM
- Erin Daugherty, Wood
- Shalene Thomas, Wood
- Jim Feild, Wood
- Kenny Blumenfeld, DNR
- Hannah Albertus-Benham, Wood
- Terill Hollweg, Abt Associates (Abt)
- Milt Thomas, facilitator, MPCA

Welcome and Updates

Gary Krueger (MPCA) and Jason Moekel (DNR) welcomed the subgroup and provided a series of updates, including:

- At the Work Group meetings this month the Work Group members discussed and provided feedback on: (1) potential future issues and what could be done now to address them; (2) the possibility of setting aside contingency funds; and (3) how to handle operations and maintenance costs.
- The Co-Trustees (MPCA and DNR) are moving forward with funding two projects to address PFAS-related issues in the East Metropolitan Area, including: a new municipal well in Lake Elmo; and a temporary drinking water system in St. Paul Park.
- Discussions on the Cottage Grove ion exchange pilot study are continuing. Cottage Grove is currently developing and refining the scope of work. As proposed, the pilot study would test a few different treatment options (including carbon and ion exchange resins) under different loading rates. There was a request to have the pilot study consider different chemical constituents in the water, including PFAS. It was noted that the City of Bemidji conducted a pilot study on ion exchange resins, and that Australia has also used ion exchange resin technology to treat PFAS in water.

- The Co-Trustees are accepting project applications for consideration for expedited funding. The application window will close on May 25th; so far, the co-Trustees have received two (2) completed applications. They will share the applications with the two Work Groups and Subgroup 1 in early June for review and feedback, with discussion of the submitted expedited project proposals at the June meetings. Funding decisions for expedited projects are anticipated to be made by early July.

Check-in and Feedback from Subgroup Members

Gary Krueger (MPCA) and Jason Moekel (DNR) provided updates on two meetings:

- There was a joint meeting with Woodbury and Cottage Grove city councils on April 30th.
- The meeting with local government units (LGUs) is rescheduled for May 29th at Park High School in Cottage Grove.

Gary Krueger and Jason Moekel asked the subgroup if they had any questions or comments. There was a discussion about the ion exchange pilot study (captured above).

Update on Project 1007

Rebecca Higgins (MPCA) and Daryl Beck (AECOM) provided an update on Project 1007. As included in the 2018 3M Settlement under Priority 1, the MPCA is responsible for conducting “a source assessment and feasibility study regarding the role of the Valley Branch Water District's project known as Project 1007 in the conveyance of PFCs in the environment”. MPCA has initiated activities for this study, and is working with DNR, the Minnesota Department of Health (MDH), the Minnesota Department of Transportation (MDOT), the Valley Branch Watershed District, and AECOM. Daryl Beck discussed the history and background of Project 1007, provided an overview of the current system, discussed the overall study objectives to address the language in the Settlement, and presented on near-term tasks in Fiscal Year 2019.

There was a question about whether the Settlement funds would cover any recommended actions that come out of the feasibility study. Gary Krueger (MPCA) responded that it's too early to know what those options are and how they would be funded. There was another question about whether the project team has engaged with the County Parks. In response, Ginny Yingling (MDH) noted that they have and will continue to engage with them.

Update on the Conceptual Drinking Water Supply Plan (Part A): Drinking Water Model

Erin Daugherty (Wood) provided an update on the drinking water modeling effort. First, Erin provided an update on modeling progress since last month, which has included the development of working models, conducting QA/QC, and providing a summary of assumptions to the LGUs for review. As next steps on the modeling effort, Wood plans to gather any remaining outstanding information and incorporate LGU comments and changes.

Second, Erin discussed the process for gathering concept-level project ideas for consideration in the Conceptual Drinking Water Supply Plan. As a starting point, Wood plans to coordinate with each Subgroup 1 member for input on their concept-level project ideas. They want to know if the members have a list of projects already developed (in any format), what their preferences/objectives are, and if any options are not feasible for their community. Wood will also be evaluating potential conflicts, proposing solutions for unaddressed areas, and looking for inter-community solution opportunities. The initial list of potential concept-level projects will be shared with the Work Groups and Subgroup 1 for review, and then subsets of projects will be packaged into scenarios for model evaluation. One

Subgroup 1 member suggested that Wood solicit input from the LGUs on any municipal ordinances that are in place that may restrict options for a community. Following this meeting, Erin will be sending out two (2) emails to the Subgroup 1 members: one about the status of the models and one with a meeting request.

Public Comments and Questions

Members of the public were given the opportunity to ask questions. No questions or comments were offered.

Update on the Conceptual Drinking Water Supply Plan (Part B): Groundwater Modeling

Shalene Thomas (Wood) and Jim Feild (Wood, via phone) provided an update on the groundwater modeling effort. First, they provided an update on modeling progress since last month, which has included updating the Conceptual Site Model (CSM) memo outline based on comments/feedback, updating the model base layers, and drafting sections of the CSM memo. Second, they provided an overview of the geologic base model, including the aquifers and aquitards included and the bedrock surfaces. Third, they discussed the QA/QC activities that will be conducted. Lastly, they discussed next steps, including: QA/QC of bedrock surfaces; determine the extent of the model domain; incorporate quaternary sediments; download climate data; compile and organize data from previous models; and generate plots, tables, and figure for the CSM. One Subgroup 1 member noted that they may want to look at the model the City of Stillwater has developed, which incorporates faulting in the area that has changed the direction of groundwater flow.

Recent Climatological Conditions

Kenny Blumenfeld (DNR) provided a presentation on recent climatological conditions in Washington County specifically and in Minnesota more broadly. Key takeaways include: (1) The East Metropolitan Area has gotten wetter and warmer, as demonstrated by more frequent heavy precipitation events and warmer winters. Projections indicate that both trends will continue. (2) Heat extremes have not been observed to be increasing to-date, but projections indicate that there will be additional days above 95°F by mid-century. (3) Droughts have not been observed to be increasing to-date, but additional consecutive dry days are projected by mid-century. There were discussions about how climate change may affecting water supplies, potential trends in conservation measures and irrigation, and how evapotranspiration needs to be considered when evaluating changes in water supplies.

Upcoming Tasks, Interim Deliverables, Homework, and Timeline

Hannah Albertus-Benham (Wood) gave a presentation on upcoming activities and interim deliverables from May through August. Upcoming tasks include: providing input on concept-level projects (Wood will begin reaching out to Subgroup 1 members individually following this meeting); and reviewing the draft groundwater CSM (July). She also thanked the Subgroup 1 members for their comments on the first three chapters of the Conceptual Drinking Water Supply Plan, and they plan to discuss the comments at the next meeting.

Next Steps: Upcoming Meetings and Review/Request for Specific Agenda Items

Terill Hollweg (Abt) revisited the meeting schedule. A meeting was tentatively planned for June 5th with the watershed districts (it should be noted that since the SG-1 meeting was held, the need for a June 5th meeting has changed; instead, the June 19th SG-1 meeting will likely be watershed- and groundwater recharge/sustainability-focused in lieu of holding the June 5th meeting). The next monthly Subgroup 1

meeting is scheduled for June 19th. Terill asked the Subgroup 1 members if they had any specific agenda items they would like to see at future meetings. No topics were suggested.

Public Comments and Questions

Members of the public were given the opportunity to ask questions. No questions or comments were offered.