Minnesota 3M PFC Settlement

Agenda for Government and 3M Working Group Meeting

Wednesday, February 19, 2020

9:00 a.m.-12:00 p.m.

Cottage Grove City Hall — Training Room

12800 Ravine Parkway South, Cottage Grove

Meeting Purpose:

- Achieve a common understanding of progress to date on Settlement activities
- Obtain work group feedback on the scenario results and cost information
- Clearly identify next steps.

1. Welcome	Kirk Koudelka – MPCA Jess Richards – DNR Milt Thomas – MPCA	9:00 am
2. Updates and follow-up a. Liaison updates b. Email update follow-up c. Other questions?	Kirk Koudelka – MPCA Jess Richards – DNR	9:10 am
3. Conceptual Drinking Water Supply Plan: Discuss scenario results and cost information	Shalene Thomas – Wood Hannah Albertus-Benham – Wood Brian Hamrick – Wood Jim Feild – Wood	9:20 am
4. Public comments and questions	Milt Thomas – MPCA	10:20 am
5. Ten minute break		10:30 am
6. Conceptual Drinking Water Supply Plan: Discuss scenario results and cost information (cont'd)	Shalene Thomas – Wood Hannah Albertus-Benham – Wood Brian Hamrick – Wood Jim Feild – Wood	10:40 am
7. Next steps: upcoming activities and tasks, future meetings, and agenda items to request	Mark Lorie – Abt Associates Milt Thomas – MPCA	11:40 am
8. Public comments and questions	Milt Thomas – MPCA	11:50 am

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Notes for Government and 3M Working Group Meeting

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9:00 a.m.-12:00 p.m.
Cottage Grove City Hall — Training Room
12800 Ravine Parkway South, Cottage Grove

Group members in attendance:

Karie Blomquist	Daniel Kyllo
David Brummel	Jennifer Levitt
Kevin Chapdelaine	Ron Moorse
Craig Dawson	Craig Morris
Clint Gridley	Jess Richards
Kristina Handt	Monica Stiglich
Chris Hartzell	Jessica Stolle
Kirk Koudelka	Kevin Walsh

Presenters:

- Kirk Koudelka, Minnesota Pollution Control Agency (MPCA)
- Jess Richards, Minnesota Department of Natural Resources (DNR)
- Milt Thomas, MPCA
- Shalene Thomas, Wood
- Hannah Albertus-Benham, Wood
- Brian Hamrick, Wood
- Erin Daugherty, Wood
- Jim Feild, Wood
- Mark Lorie, Abt Associates (Abt)

Welcome

Kirk Koudelka (MPCA) and Jess Richards (DNR) welcomed the work group. Milt Thomas (MPCA) began by introducing the goals of the meeting: to achieve a common understanding of progress to date on Settlement activities; obtain work group feedback on the scenario results and cost information; and clearly identify next steps.

Updates and follow-up

Monica Stiglich and Kevin Chapdelaine (liaisons) provided a report-out from yesterday's Citizen-Business Group meeting, including the concerns with the status of Newport and other small communities and groups of homes. The liaisons emphasized that the scenario results are preliminary and that the results do not yet consider the Priority 1 criteria. Monica also mentioned the discussion of the difference between granular activated carbon (GAC) and ion exchange (IX) and the cost basis for both.

Kirk Koudelka (MPCA) then provided an update on upcoming meetings, including the rescheduling of the February 25th public meeting to March 4th. He mentioned that technical one-on-one meetings are being set up with each community to go through the preliminary scenario results in more detail, and reiterated that these are not recommendations – they are for information sharing opportunities. Kirk

also mentioned that a community has submitted new numbers for water demand for 2040, and that Wood is planning to check in with the other communities on other things that may need to be adjusted.

Conceptual Drinking Water Supply Plan: Scenario results and cost information

Shalene Thomas, Hannah Albertus-Benham, Brian Hamrick, Erin Daugherty, and Jim Feild (Wood) presented on the scenarios results and cost information for the Conceptual Drinking Water Supply Plan. Shalene emphasized that these results are preliminary and this is not a presentation of recommendations. Modeling and refining of the scenarios are on-going, with the good/better/best recommendations to follow. The effort right now is focused on determining which projects to include in the different scenarios, evaluating the feasibility of the projects and scenarios based on the modeling results, and developing costs.

The Wood team first discussed the drinking water modeling, the groundwater modeling, and the basis for the cost estimates. The drinking water modeling was based on the community profile information, engagement with the local government units (LGUs), the one-on-one meetings with LGUs, and additional follow-up meetings. They developed multiple models across the different scenarios. Wood is currently meeting one-on-one with the communities to further vet the scenarios and the modeling assumptions.

The groundwater model relied on existing data and assumptions from partners including the Minnesota Geological Survey (MGS), the Minnesota Department of Health (MDH), MPCA, DNR, and the Metropolitan Council. The model was calibrated to average groundwater elevations over a three year time period (2016-2018) and the scenarios were simulated under static, constant (steady-state) conditions. The 2016-2018 time period was used because of the wealth of data available and the wet conditions during that time period most closely match what climatologists expect for the next 20 years. Wood looked at other periods for calibration, including dry conditions (2006-2009) and even a dust bowl drought situation (although there is limited data available for this time period). Wood found that the drier conditions resulted in more pumping from the wells and modeled those conditions.

The basis of costs comes from previous bids to cities in the region for similar work (e.g., water main installations, storage tanks, etc.) dating back to 2005. The outputs are for general screening as they do not include any on-site data collection or analysis.

Wood then presented the preliminary results for the community-specific, regional, treatment, and integrated scenarios.

The work group, and members of the public, asked for clarification on the differences in implementation and efficacy of GAC and IX treatment methods. Wood explained that typically the IX residence time is shorter than the GAC, so the capital cost is lower and IX also has a lower operating cost. For disposal, GAC generally is returned to the original provider while IX is incinerated. Both treatment methods achieve non-detect levels based on current technology although IX is considered slightly better for short-chain PFAS. Right now IX is not an approved treatment in Minnesota, but MDH has it under consideration and there is currently an ongoing pilot study. The infrastructure for GAC and IX could also theoretically be transformed from one to the other.

Work group members also asked Wood for information on uncertainty in the groundwater model. Wood said that there is a 7% error in the model (as determined by comparing the groundwater observations to model outputs), and the industry standard is to have below a 10% error. They are also very confident in the flow path analysis. In terms of individual communities, it is much harder to get into specifics because

this is a large regional scale model. Wood addressed this by having conservative assumptions regarding contamination built into the model as well as by running the model under dry conditions.

The work group discussed how the modeling and cost results will inform the scenario evaluation and good/better/best recommendations. Wood's modeling was used to determine if the aquifer can sustain anticipated pumping rates under each scenario. They then looked at flow path analysis under each scenario to determine if treatment would be needed. This was then used to develop the estimated costs for the different scenarios. This information will be used for the evaluation of the scenarios using the Priority 1 criteria and to inform the good/better/best recommendations.

An overarching discussion among the work group concerned equity. It was reiterated that this analysis focused on feasibility and cost-effectiveness. The Priority 1 criteria are intended in part to address other considerations such as long-term benefits, potential adverse impacts, acceptability to the public, and future uncertainties. Feedback from the work group will be critical.

Public comments and questions

Members of the public were given the opportunity to ask questions. Concerns were expressed regarding the basis for the GAC costs and how that influences the IX costs. Another member of the public asked how personnel figured into operations and maintenance (O&M), specifically for the regional scenarios. While the scenarios include costs for 5 or 6 operators for the water treatment plants, they do not include additional administrative costs because of uncertainty around where a regional authority would be housed.

Another member of the public asked if the work group was considering the value of interest earned on the settlement investment. This is being considered as part of a larger conversation on how to structure the timing and funding of any eventual on-the-ground work.

Multiple members of the public were concerned with the timeline for feedback from communities.

Next steps

Shalene Thomas (Wood) presented on Wood's next steps:

- Meet with LGUs next week for the one-on-one meetings
- Refine existing scenarios as needed
- Potentially model new scenarios.

Mark Lorie (Abt) presented upcoming steps and deadlines, including:

- Work group members were asked to provide feedback on Chapter 7 and Appendix E, as well as provide input on the Priority 1 Criteria that focus on regional planning, local planning, and public acceptance (input can be provided via a spreadsheet shared with the work group).
- Co-Trustees will hold the informational and listening sessions on Wednesday, February 26th (Lake Elmo), Thursday, February 27th (Cottage Grove), and Wednesday, March 4th (Woodbury).

Work group members were asked to reflect on what they would like to focus on for the March meeting.