

Minnesota 3M PFC Settlement
 Agenda for Subgroup 1 Meeting

Wednesday, October 21, 2020
 1:00 - 4:00 PM

Webex link: [Join Webex meeting](#)

(If using Webex, we request that you connect to the audio using your phone rather than the computer, and use the “Call me” option. Please refer to the Webex instructions for more information.)

Conference line (if not using the Webex “Call me” option): 1-415-655-0002; Access code: 171 330 6983#

Meeting Purpose:

- Clarify details about the recommended options and achieve a common understanding of how Co-Trustees arrived at the recommendations described in the Draft Conceptual Plan
- Discuss feedback received so far and continue to gather feedback on the recommended options and the supporting documentation
- Clearly identify next steps and the path forward to finalize the Conceptual Plan

1. Welcome a. Webex instructions b. Roll call c. Agenda d. Updates and email follow-up	Gary Krueger – MPCA Jason Moeckel – DNR Heather Hosterman – Abt Associates Mark Lorie – Abt Associates	1:00 PM
2. Recommended option details: a. Treatment thresholds and how it relates to municipal and private wells receiving treatment b. Neighborhood municipal connections	Gary Krueger – MPCA Jason Moeckel – DNR Hannah Albertus-Benham – Wood	
3. Co-Trustee water rate study and O&M funding durations	Mark Lorie – Abt Associates	
4. Planned updates based on 1:1 meetings	Gary Krueger – MPCA Jason Moeckel – DNR Hannah Albertus-Benham – Wood	
5. Public comments and questions	Mark Lorie – Abt Associates	2:20 PM
BREAK	N/A	2:30 PM
6. Rationale and example project concepts for: a. Sustainability and conservation b. Drinking water protection	Gary Krueger – MPCA Jason Moeckel – DNR Mark Lorie – Abt Associates	2:40 PM
7. Next steps	Gary Krueger – MPCA Jason Moeckel – DNR	

	Mark Lorie – Abt Associates	
8. Public comments and questions	Mark Lorie – Abt Associates	3:10 PM
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Minnesota 3M PFC Settlement
Notes for Drinking Water Supply Technical Subgroup 1 Meeting

Wednesday, October 21, 2020

1:00 p.m. – 4:00 p.m.

Virtual WebEx Meeting

Group members in attendance:

Brian Bachmeier	Dan DeRudder	Gary Krueger	Greg Johnson
Jack Griffith	Jason Moeckel	Jim Westerman	Jon Herdegen
Karla Peterson	Lucas Martin	Marian Appelt	Richard Thron
Ryan Burfiend	Ryan Stempski	Stephanie Souter	Steve Love
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Presenters:

- Gary Krueger, Minnesota Pollution Control Agency (MPCA)
- Jason Moeckel, Minnesota Department of Natural Resources (DNR)
- Heather Hosterman, Abt Associates
- Mark Lorie, Abt Associates
- Hannah Albertus-Benham, Wood

Welcome

Heather Hosterman (Abt Associates) welcomed the Subgroup. Mark Lorie (Abt Associates) reviewed the agenda.

Gary Krueger (MPCA) gave an overview of the work group meetings. There was a lot of discussion on conservation and sustainability. He also announced the public comment period was extended to December 10, 2020.

Recommended option details

Hannah Albertus-Benham (Wood) presented on Health Index (HI) treatment thresholds and how it relates to municipal and private wells receiving treatment and on neighborhood municipal connections.

Key points include:

- The Health Index (HI) determines which wells receive treatment; it is not a treatment standard
- The Settlement has planned granular activated carbon (GAC) for wells that are above the HI thresholds in the recommended options (HI>0.5 for Options 1 and 3; HI>0.3 for Option 2)
- Some wells will be treated even if they are not above the HI level because of their proximity to affected wells and to meet operational needs of the well field (e.g., the Tamarac Well Field)
- The Minnesota Department of Health (MDH) will continue to issue well advisories when HI=1 or greater

Throughout all of the options, there are 2062 homes being connected to municipal systems and 61 homes that receive point of entry treatment systems (POETS) instead.

Feedback:

Subgroup 1 members asked if new well data was included in the presentation. Hannah explained that the slides match what is represented in the Plan and do not yet include new well sampling data. Wood uses a rolling average for wells that are sampled quarterly. Hannah also acknowledged that the slides do not reflect information that was heard in the one-on-one technical meetings, particularly for Woodbury and Oakdale.

Hannah then presented on neighborhood hookups and how the Co-Trustees determined which homes that are currently on private wells would be connected now versus later. All neighborhoods were evaluated independently meaning the Co-Trustees did not compare neighborhoods with one another. There are two options for private well owners:

- POETS - Settlement eligible costs include treatment system installation (approx. \$2500) and annual O&M (approx. \$1000)
- Municipal system connection - Settlement eligible costs include connection to home (approx. \$2500), cost per linear foot of water main, and well sealing (approx. \$2000).

The Co-Trustees recommend neighborhoods be connected to the municipal system if they currently have a large number of wells with elevated HI levels and if the costs of water mains and connections are less than the cost of POETS after a reasonable amount of time. Each neighborhood was reviewed and placed into one of three hookup categories:

- 1) Yes – neighborhood proposed to be hooked up as part of initial implementation.
- 2) To be determined (TBD) – neighborhood proposed to potentially be hooked up later after additional testing
- 3) No – neighborhood not proposed to be hooked up

Wood estimated \$41 million would be needed to hook up neighborhoods in the future. This is separate from the general Settlement contingency fund. The \$41 million is the same for each recommended option. Hannah walked through some examples of neighborhood hookup decisions:

- Cottage Grove: Three example neighborhoods (Goodview Ave, Harkness Ave, and Point Douglas Road) are all being connected to the municipal system. The Keats Ave neighborhood is to be determined because Wood still needs to test wells in that area.
- Lake Elmo: The Homestead neighborhood is being connected to a municipal system because of the proximity of its wells and HI levels. Tartan Meadows is to be determined because the wells are spread farther apart and more well testing is needed. Hannah clarified additional tests have been done here, but are not yet reflected in the data.

The Subgroup then discussed plans for West Lakeland. West Lakeland is different because the recommended water system has a high per capita cost. However, it's not accurate to simply compare communities' per capita cost because they have different water system needs. The options for West

Lakeland are to keep everyone on POETS or move to a municipal system. In West Lakeland, there were 300 wells sampled since Wood last analyzed the data. More sampling shows that West Lakeland has expansive PFAS impacts and no municipal system to fall back on. In particular, the northern part of the community was hit by a TCE plume and many of those wells already have GAC. Hannah detailed the cost differences between installing POETS versus establishing a new municipal system in West Lakeland. Data shows that, when considering HI values, the cost of POETS will exceed eligible costs of the municipal system after 78 years.

Gary emphasized the need for more testing and that the recent focus has been testing in new areas. He reminded the Subgroup that they need permission to test wells. Some residents never respond or deny permission. Ginny Yingling (MDH) said that while the local government representatives from the City of Cottage Grove have been asking for more testing, many residents have not responded for testing.

Subgroup members asked about costs covered under the Settlement. They said they have seen connection costs from the water main to the house to be much higher because of how far back homes sit from the thoroughfare. Hannah explained that the full connection costs will be covered by the Settlement; \$2500 is simply an average based on information Wood has collected so far. Another Subgroup member asked if the cost estimates include costs for decommissioning and removing carbon filters from homes. Hannah said it does not include costs for decommissioning POETS but Gary said the removal of GAC filters is not too expensive. Hannah also clarified that the Settlement will cover media change out and O&M associated with treatment, but no other items. Recapitalization costs are laid out in Appendix E, but not included in the final costs covered by the Settlement. Another Subgroup member asked if there was a way to factor in unknown maintenance costs or problems that could appear over time. Gary said it was difficult to project those types of costs (e.g., leaks or other maintenance calls) over 100 years, but they are all part of the overall management of media change outs. Another Subgroup member pointed out there is not a budget for building in special well and boring construction zones, which is more expensive. Ginny said MDH is discussing this issue.

O&M funding and Co-Trustee Water Rate Study

Mark presented background on the ongoing water rate study. Because the Settlement funds are limited, the communities will bear some of the O&M costs early on and additional O&M when the Settlement funds run out. The goal of the rate study is to estimate how the Conceptual Plan may affect community costs, water rates, and typical household water bills in the future. For each community, the rate study will produce three results:

- Change in median household water bill, showing increases at each phase
- Percent increase in median household water bill
- Increase in household water bill compared to income

Mark also presented on the O&M durations in the recommended options. The recommended options prioritize O&M for POETS for at least 100 years. That duration does not vary across the options, but the dollar amount does because the number of POETS varies. The O&M funding and duration for public water systems change across the recommended options. Cost to maintain a private well and POETS

would total about \$1540 per year (\$1000 for the POETS and \$540 annualized cost of the private well). Typical household water bills for those hooked up to public water systems is about \$100-\$500 (for average water users). Covering O&M for the POETS would bring private wells cost to the homeowner in line with public water bills.

Feedback:

Subgroup members asked if the additional costs of fire insurance were included in these estimates. Gary explained that in figuring the cost of water lines, Wood looked at larger diameter lines to accommodate fire protection. It was a very large additional cost, so the Conceptual Plan does not include fire protection. However, this is something for communities to potentially cost share. Hannah said that fire protection added approximately \$4-5 million.

Another Subgroup member asked how confident the State was that the Consent Order would cover costs 35-40 years from now when the Settlement money runs out. Gary clarified that 3M will have an obligation to pay as long as the Consent Order is in place. As long as 3M is viable, they are obligated to treat wells with an HI of 1 or greater. They are not responsible for wells under HI of 1 or greater, even if the Settlement treats those wells.

Public comments and questions

One member of the public asked how Wood reached an estimated cost of \$1000/year for maintenance of a private well POETS. Gary said they used change out costs from Culligan Water. The cost represents a whole-home filter not smaller, under-the-sink filters.

Planned updates based on 1:1 meetings

Hannah gave an overview of the one-on-one technical meetings with Subgroup members. Updates in progress include:

- Incorporate new municipal well sampling data (e.g., Cottage Grove Well 11 is now above an HI of 0.3 under Option 2)
- New costs for Cottage Grove for some of their older and smaller wells
- Hydraulic analysis of Lake Elmo's interconnect with Woodbury
- New connections due to expedited projects into prorated costs for water storage
- Increased cost share amounts for tanks in Lake Elmo and Cottage Grove
- Verified water treatment plant capacities for Cottage Grove and Oakdale
- Costs for a storage tank and well upgrade in Prairie Island Indian Community
- Sample data across recommended options
- Modeling data after the Conceptual Plan is finalized with a data disclaimer

Items that require more discussion include:

- Demolition costs for existing structures where there are currently temporary systems in place. Some of these temporary systems will be torn down, which comes with associated costs.

- Justification for building costs and find the most conservative estimate. Wood may be reaching out to Subgroup members for more information on this issue.
- Costs for service laterals. Some communities felt the estimated cost of \$2500 was too low.
- One additional well in Oakdale. This is dependent on which recommended option is selected.

Feedback:

One Subgroup member asked if their formal comments to the State had been considered. Hannah explained that multiple communities provided formal feedback. Wood and the agencies are working to provide written responses to the feedback.

Rationale and example project concepts for sustainability and drinking water protection

Mark presented on recommended costs allocation for sustainability and conservation, and drinking water protection. The Co-Trustees feel that sustainability and conservation and drinking water protection very much address Priority 1 goals, which include protecting drinking water quality, quantity, and sustainability.

Mark walked through some example projects under each funding allocation. The implementation of these projects would hopefully reduce the need for treatment in the future. Projects to address water quality at the source include targeted sediment removal in Project 1007 area to reduce regional groundwater contamination; treating contaminated surface water to minimize contributions to additional groundwater/drinking water contamination; and develop multi-benefit wells (pump and treat) in targeted area to control plume movement and explore possibility of municipal or industrial use of treated water. Projects to address sustainability and conservation include grants to support efficient home appliances, use of treated groundwater to recharge aquifer, select stormwater management projects for aquifer recharge, land acquisition to preserve groundwater recharge areas, and incorporating sustainability measures into drinking water infrastructure projects.

Feedback:

One Subgroup member asked if the State considered these additional funding categories to be as important as bringing clean water to the tap under Priority 1. Gary explained that there should be a tiered approach to Priority 1 (e.g., Priority 1a, 1b, etc.). The Subgroup member explained that while they feel everything under Priority 1 is important, clean drinking water is the priority. They do not want to run into a situation in the future where more funds are needed for drinking water protection and money has already been spent on sustainability and conservation. They also asked if preventing PFAS from reaching groundwater would fall under the Consent Order or Superfund. Gary agreed that the Settlement needs to be flexible on these allocations and not be too locked in. MPCA will plan to provide more information about what falls under the Consent Order versus the Settlement and other funds.

Other Subgroup members presented additional ideas that fall under the sustainability allocation including smart irrigation system controllers on properties. Another Subgroup member brought up the issue of contamination created by cones of depression – if the State puts multiple wells in certain areas, it can cause a cone of depression causing additional contamination to come into the area and require

more treatment. Gary explained they are doing early feasibility studies on this issue involving options for PFAS mitigation through the Project 1007 corridor.

Next steps

Mark reviewed next steps. Subgroup members were asked to fill out their feedback spreadsheet and email it to pfcinfo.pfc@state.mn.us by December 10, 2020. Over the next couple of months, the Co-Trustees will gather feedback, hold working sessions to incorporate feedback and update the recommended options as needed, finalize the plan, and draft Chapter 8 documenting their final decision. Subgroup 1 will have their next meeting on November 18, 2020 from 1 – 4 PM CST. Subgroup members are encouraged to send ideas for agenda items they would like to discuss.

Public comments and questions

One member of the public asked if whole-house treatment covered lawn watering and other outside activities. Gary explained that a POET would treat all faucets used for drinking water but would not filter outside taps.

The member of the public was also concerned that sustainability was not being addressed as much as other issues. Because much of the surface water in the area does not go into the groundwater but instead into the St. Croix River, they said a system that focused on recharging aquifers seemed impractical. Ginny explained that along the Project 1007 corridor there are places where aquifer recharge is rapid (e.g., stormwater ponds along Kneale Avenue). However, the State has seen high concentration zones of contamination immediately downgradient of these ponds and tracking it east to the St. Croix. That is why they are focused on the Project 1007 corridor to treat contamination. One Subgroup member explained that the Prairie du Chien aquifer is fractured near those ponds, which is why they are in a special well construction area and residents in that area get water from the Jordan aquifer instead. Rebecca Higgins (MPCA) said understanding the interaction/communication between surface water and groundwater is extremely important and a key outcome as part of the State's Project 1007 investigation work. They are working to get results out shortly. The member of the public also supported efforts to encourage communities to use less water.