Minnesota 3M PFC Settlement
Agenda for Sub-Group 1 Meeting

Wednesday, September 16, 2020
1:00 p.m.- 4:00 p.m.

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: 171 206 5517#

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
- Clearly identify next steps and the path forward for finalizing the CDWSP

1. Welcome a. Agenda b. Webex instructions c. Roll call d. Updates and email follow-up	Gary Krueger – MPCA Jason Moeckel – DNR Heather Hosterman – Abt Associates	9:00 a.m.
2. Update on the process, overview of recommended options a. Developing the recommendations b. Work groups, community, and public input c. Finalizing the Conceptual Plan d. Funding allocations	Gary Krueger – MPCA Jason Moeckel – DNR Mark Lorie – Abt Associates	
3. Details for the recommended options: Community by community summary and questions	Hannah Albertus-Benham - Wood	
4. Questions	Mark Lorie – Abt Associates Milt Thomas – MPCA	
BREAK	N/A	10:30 a.m.
5. Next steps	Gary Krueger – MPCA Jason Moeckel – DNR Mark Lorie – Abt Associates	
6. Public comments and questions	Mark Lorie – Abt Associates Milt Thomas – MPCA	

Minnesota 3M PFC Settlement

Notes for Drinking Water Supply Technical Subgroup 1 Meeting

Wednesday, September 16, 2020

1:00 p.m. – 4:00 p.m.

Virtual WebEx Meeting

Group members in attendance:

Brian Bachmeier	Gary Krueger	Greg Johnson	Jack Griffith
Jason Moeckel	Jim Westerman	Jon Herdegen	Karla Peterson
Kristina Handt	Lucas Martin	Marian Appelt	Matt Moore
Ray Kaiser	Richard Thron	Ryan Burfiend	Ryan Stempski
Stephanie Souter	Stu Grubb		

Presenters:

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

Welcome

Heather Hosterman (Abt) and Gary Krueger (MPCA) welcomed Subgroup 1.

Updates and follow-up

Gary provided project updates. The Co-Trustees are in the process of:

- Setting up meetings with the communities, Wood, and DNR staff
- Communicating with communities that applied for expedited projects
- Expanding the capacity grants in place with communities to support their work on the Settlement. The grants end in December but the Co-Trustees are working to extend them into 2021.

Update on the process, overview of recommended options

Mark Lorie (Abt) discussed project activities since May. During the May meeting, Subgroup 1 discussed the results of the key considerations survey. The results of the survey were used to develop the recommended options. Additional key activities included:

- Working sessions between the Co-Trustees, communities, and technical staff throughout the summer. Communities provided information to refine the cost estimates and discuss recommended options.
- Refining the recommended scenarios through an iterative process, including finalizing cost estimates for different health index (HI) thresholds to identify wells to receive treatment. This process

eliminated scenarios that would not work well for multiple communities and honed in on the options currently recommended.

- Publishing the draft Conceptual Drinking Water Supply Plan (CDWSP) and opening it to a 45-day public comment period (September 10-October 26). The public can provide comments at: https://www.surveygizmo.com/s3/5830547/Minnesota-3M-PFC-Settlement-Questions-for-the-Public. The Co-Trustees are determining how they will review and incorporate feedback from the public and the work group members.

Mark then provided an overview of the recommended options. Chapter 7 and Appendix E of the Conceptual Plan contain more details. The options are summarized below:

- **Option 1 (preferred)**

Mark also discussed assumptions made across the options. Key assumptions include any well above an HI threshold of 0.5 (options 1 and 3) or 0.3 (option 2) is considered, costs to accommodate growth are not covered under the Settlement, costs do not include infrastructure recapitalization costs, and treatment other than PFAS is not covered by the Settlement.

Details for the recommended options: Community by community summary

Hannah Albertus-Benham (Wood) gave more details on recent tweaks to the options based on one-on-one meetings with the communities. Updates include:

- Revised groundwater model. AECOM peer-reviewed the groundwater model, which resulted in small changes that affected particle tracking and drawdown estimates.
- Refined GAC change out costs. Wood had been using values based on Oakdale, which had higher concentrations of PFOA than any other community. Wood is now using more specific PFOA concentrations for each community.
- Adjusted land acquisition to include additional setbacks and greenspace requirements
- Changed calculation method for municipal well HI values. Instead of using a rolling average for wells tested annually, Wood switched to using the most recent testing result. Wells tested quarterly continue to be calculated into a rolling average.
- Updated well information to accommodate Baytown trichloroethene (TCE) data and new private well counts from a few communities.

Hannah explained a new interactive map is available online. Users can zoom in on the map to see how their well might be affected by the recommended options. Hannah then detailed the key technical aspects for each community under Options 1, 2, and 3. For each community, costs related to the particle tracking were placed into the contingency fund since it is not likely the contamination plume will move very far. High-level cost information is below:

- **Option 1**
  - Afton:
    - 11 existing and 7 new POETS
    - Capital (GAC) – $0.03 M
    - Annual O&M - $0.02 M
    - 20 Year Total - $0.52 M
  - Denmark:
    - 0 existing and 0 new POETS
    - No dedicated funding. While there is not funding for POETS, there are funds to continue to monitor and test Denmark wells.
  - Grey Cloud Island
    - 52 existing and 23 new POETS
    - Capital (GAC) – $0.08 M
    - Annual O&M - $0.08 M
    - 20 Year Total - $2.1 M
    - Not a high level of interest in connecting to the municipal system here
  - Maplewood:
    - 4 existing and 1 new POETS
    - Capital (GAC) – $0.005 M

- Annual O&M - $0.01 M
- 20 Year Total - $0.14 M
- There are still some wells where connection is to be determined based on proximity to existing supply mains. Wood is monitoring and will evaluate the potential to connect them moving forward.

Cottage Grove:

- 59 existing, 41 news POETS
- 1200 gpm replacement well for wells 1 and 2 – more cost effective than running new water lines to existing wells
- 7300 gpm water treatment plant (WTP) in Intermediate Zone – not all wells have a current HI advisory, but need to be treated due to proximity to contaminated wells and need to be treated together
- 3200 WTP in Low Zone
- 67 connections and water lines for three neighborhoods
- 700,000 gallon storage tank – Cost of tank is prorated (approximately 2 percent is covered) to what is required storage for the 67 new connections. Storage for growth purposes are not covered.
- Capital (GAC) – $46.6 M
- Annual O&M - $1.34 M
- 20 Year Total - $82.6 M

- A Subgroup 1 member asked if these costs consider temporary treatment. Hannah explained that the current option costs assume no temporary treatment was undertaken.

Lake Elmo:

- 10 existing, 13 new GAC POETS, 257 connections
- New wells to meet 2040 demand
- Interconnect with Woodbury to supply additional 2700 gpm. Funding is currently set aside for this project, but it requires more discussion with the community. This was in response to the White Bear Lake Court Order as there are restrictions on addition wells and capacity from the aquifer in this area.
- 1 M gallon storage tanks – Settlement would cover approximately 8 percent of the tank
- 257 connections for seven neighborhoods
- Capital (GAC) – $17.8 M
- Annual O&M - $0.03 M
- 20 Year Total - $18.61 M

- Wood will send a Lake Elmo map as it was not included in the presentation.
- Another Subgroup 1 member asked if communities could get the capital infrastructure costs in an itemized list. Hannah directed them to Appendix E, but it breaks down capital differently than in the slides. The same request was made for all communities.

Newport:

- No GAC POETS, 9 connections
- Interconnect with Woodbury
- Connect two systems with water transmission main along Bailey Road
- Capital (GAC) – $1.65 M
- Annual O&M - $0.00 M

- 20 Year Total - $1.65 M

- Hannah clarified that there is a shorter O&M period for municipal systems versus private wells. Once Settlement funding runs out, that responsibility falls to the community. The Settlement covers capital costs of infrastructure for municipal systems (e.g., pipes into homes) but communities/homeowners will cover O&M for that type of infrastructure.

Lakeland/Lakeland Shores:

- Leave 4 homes on GAC POETS – some are not in a location that can be easily connected
- Connect approximately 453 homes with private wells and seal wells. Some wells may only be used for irrigation.
- Water supply is from St. Simon Aquifer, so they have some background PFAS but do not expect large changes in the future
- Capital (GAC) - $2.88 M
- Annual O&M - $0.00 M
- 20 Year Total - $2.99 M

- Wood explained that if future plume movement moved into St. Simon Aquifer, the money to treat affected wells would come from the contingency fund. This was considered in the particle tracking. Costs are detailed in Appendix E.

Oakdale:

- 5 new GAC POETS, 58 connections
- Upsize influent and effluent lines to WTP
- Expand WTP by 1,750 gpm
- **2** new wells replacing wells 1, 2, and 7. Wells 6 and 8 would remain out of service and Wells 3 and 10 would remain in service and would not require treatment
- Capital (GAC) – $18.14 M
- Annual O&M - $0.70 M
- 20 Year Total - $36.87 M

- The WTP expansion seems undersized. Wood will connect with Oakdale engineers on this issue.

Prairie Island Indian Community:

- Convert an existing irrigation well to drinking water. Settlement covers well upgrades to meet code and treatment at this well.
- Capital (GAC) – $04.14 M
- Annual O&M - $0.19 M
- 20 Year Total - $9.28 M

St. Paul Park:

- NO GAC POETS
- 2,200 gpm WTP with pre-treatment for three existing municipal wells
- Upsizing or additional raw water lines to the northern water tower
- 28 Connections to existing distribution system and seal wells
- Capital (GAC) – $16.46 M
- Annual O&M - $0.37 M
- 20 Year Total - $26.33 M

West Lakeland Township:

- 2 new 680 gpm wells
- 680 gpm WTP with pre-treatment
- 45.6 miles of new water mains
- Pressure reducing valves, booster pump stations, and storage tanks
- ~ 1,190 wells connected (estimate)
- Capital (GAC) – $115.48 M
- Annual O&M - $0.26 M
- 20 Year Total - $122.53 M
- West Lakeland leadership has shown preference for WTP and distribution system within West Lakeland versus providing many POETS. This will be an item to discuss during the October meetings.

- Subgroup 1 asked for clarification on how costs in the slides compared to information in Appendix E. Wood explained that particle tracking costs were taken out, but plume movement could potentially move into northern part of West Lakeland. However, there is no data suggesting that wells there are currently impacted, so they would not be connected under Option 1. Costs such as this would come from Alternative 4 in Appendix E minus ineligible costs.
- One Subgroup 1 member asked if West Lakeland's approaches and costs include capital and O&M on a treatment plant. Hannah explained the cost of a treatment plant is included. O&M would include media change out, staffing requirements, and maintenance. Wood also clarified that all O&M estimates include one operator.
- One Subgroup 1 member asked about comparable costs for GAC systems versus POETS. Wood pointed Subgroup 1 members to Appendix E for details. Wood did look at the breakeven point for GAC systems, which is about 90 years before the cost of POETS run ahead of municipal system distribution costs.
- One Subgroup 1 member asked about water quality equity. If wells are piped together to transport water to a central treatment location, how will the treatment of the impacted wells be separated from the treatment of the non-impacted wells for equitable distribution to customers? Wood explained treatment determination would be based on HI values. There is a possibility for blending that will need to be addressed during design.

Woodbury:

- 9,600 gpm WTP with pre-treatment in the southern region to accommodate the Tamarack Well Field wells, will require raw water lines
- 5 new wells to meet 2040 MDD, will not require treatment and will be routed to the distribution system
- 2M gallon storage tank (prorated based on amount for growth)
- Interconnects with Lake Elmo (additional wells) and Newport
- Capital (GAC) – $61.31 M
- Annual O&M - $0.87 M
- 20 Year Total - $84.77 M

- **Option 2**

  Communities that remain the same as Option 1: Lakeland/Lakeland Shores, Oakdale, Prairie Island Indian Community, St. Paul Park, and West Lakeland
  Communities that see an increase in GAC POETS: Afton, Cottage Grove, Denmark, Grey Cloud Island, Lake Elmo, Maplewood, and Newport

Communities that see an increase in GAC POETS and municipal wells treated: Woodbury
  - 18 additional POETS
  - 15,600 gpm WTP for Tamarack/southern wells
  - Largest change is in the South Well Field. Five new wells would need to meet 2040 demand. Assuming they will need the same level of treatment as well 19 (HI = 0.43).
  - Well 1 to remain off-line
  - 2 M gallon storage tank – not covered under Settlement because it is related to growth
  - Interconnects with Lake Elmo (additional wells) and Newport – interconnect with Lake Elmo requires additional wells; interconnect with Newport does not
- **Option 3**

  Similar to Option 1 but Oakdale and Lake Elmo are supplied by St. Paul Regional Water Supply (SWRWS)
  Lake Elmo will be supplied through Oakdale's existing distribution system, requiring additional interconnects and larger water distribution mains
  SPRWS will require a new booster bump station, larger water distribution mains, and redundant line from existing system to Hillcrest Reservoir

- All communities would like capital costs itemized by infrastructure and a detailed map of what is included. Wood recommended looking at Appendix E, the interactive map, and communicating directly on specific questions.
- One Subgroup 1 member asked about equity. Is it equitable to provide private wells with 100 years of O&M and public systems only 21-40 years? Gary explained this would be a topic of discussion moving forward and was discussed in the one-on-one meetings. Private wells have additional expenses each year, in addition to PFAS treatment costs whereas municipal system costs are spread across more people.
- Subgroup 1 members asked about drinking water protection funds. Will the State hold off on implementing money reserved for drinking water protection until the existing drinking water projects are implemented? Gary explained a large part of that is being evaluated now in relation to Project 1007 as was specifically identified under the Settlement. These efforts will be happening concurrently in a parallel path. Some of the Subgroup 1 members felt that $70 million was too large an amount set aside for drinking water protection and that this money may be needed as project construction begins.

Hannah said the Co-Trustees prefer Option 1 due to larger contingencies and longer O&M funding for public water systems. The Co-Trustees emphasized the resiliency already built into the plan even with an HI of 0.5.

Subgroup 1 members had clarifying questions on what was included under the Settlement funds and how the Co-Trustees would make their final decisions. Specifically, Subgroup 1 members asked:

- If the modeling gave more insight into the borders of the study area (e.g., if the City of Hastings would receive treatment on municipal wells with an HI of 0.6)? Representatives from the Minnesota Department of Health explained that Hastings is currently meeting treatment requirements and there are no well advisories in place. The Department of Health will continue to monitor Hastings.

- What the process is if the communities do not like Option 1? Gary explained that the Co-Trustees will take all comments from the community and balance them against the entire plan. That is the purpose of the public comment period. If any communities are strongly opposed to an option, Co-Trustees will meet with them separately to discuss.
- If the Settlement covers irrigation well sealing and if this would happen at the same time as municipal connections? Gary explained this has been consistent with expedited projects and that private wells would be sealed the same time a new connection is made.

Public comments and questions

Members of the public were given the opportunity to ask questions. There were no comments or questions from the public.

Next steps

Mark presented on next steps, including:

- September 17 – 25: Technical one-on-one meetings. Wood will send out invitations
- September 25 – October 26: One-on-one leadership meetings with local government units and elected officials
- September 22-23: Four public meetings, 3:00-5:00 p.m. and 7:00-9:00 p.m., each day
- October 21: Subgroup 1 meeting – will cover detailed feedback from Subgroup members, public comments, and water rate study results
- November 18: Subgroup 1 meeting – will review feedback and discuss approach for finalizing the Conceptual Plan