

Cost Updates

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Subgroup 1 meeting, November 18, 2020

Technical changes to the recommended options were proposed by communities based on their initial review and discussed at recent meetings

Overview:

1. Sampling data updates and implications
2. Cost details updates in progress
3. General cost overrun discussion

NOTE: due to cost refinements so far, estimates now meet Class 4 cost estimate (+50%/-30%) level of accuracy (previously Class 5 at +100/-50%). Class 3 would require site visits and detailed design-level estimates.

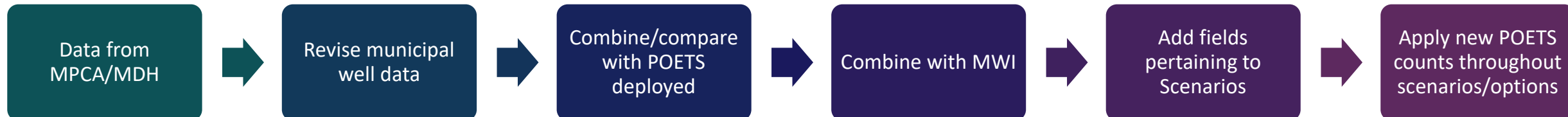
Sampling data updates and implications

Municipal wells

- Include additional treatment for Well 11 in Cottage Grove for Option 2

Private wells

- Update well counts requiring POETS (dependent on HI threshold)
- Neighborhood hookup analyses
- Updates to recommended options overall costs (Appendix E.4)
- Not redoing particle tracking



Sampling data updates and implications

Previous well/POETS #s and preliminary updated well/POETS #s

DRAFT

Sample data export year	TOTAL WELLS		WELLS IN MWI		Total Sampled		Total Wells w/ POETS		Wells to continue w/ POETS		Wells with HI >0.5 to receive POETS		Wells with HI >0.3 to receive POETS	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
Afton	1195	1195	808	708	242	124	39	11	39	11	13	7	21	8
Cottage Grove	868	820	868	820	723	672	84	75	68	59	58	41	81	61
Denmark Twp.	761	761	515	487	133	111	0	0	0	0	4	0	7	1
Grey Cloud Island Twp.	123	121	123	121	111	109	53	52	53	52	23	23	25	27
Lake Elmo	1386	1309	1386	1309	645	503	110	95	95	10	26	13	50	26
Lakeland	342	296	342	296	112	58	5	3	1	1	0	3	0	3
Lake St. Croix Beach	122	119	122	119	6	2	0	0	0	0	0	0	0	0
Lakeland Shores	44	41	44	41	16	12	0	0	0	0	0	0	0	0
St. Mary's Point*	102	98	102	98	5	3	0	0	0	0	0	0	0	0
Maplewood	615	602	615	602	59	38	5	4	5	4	5	1	6	2
Newport	134	113	134	113	57	25	1	0	0	0	8	0	34	3
Oakdale	109	124	109	124	23	39	0	0	0	0	0	5	0	5
Prairie Island Indian Community	1	1	1	1	1	1	0	0	0	0	0	0	0	0
St. Paul Park	66	49	66	49	25	16	6	3	5	0	0	0	0	0
West Lakeland Twp (ALL POETS)	1393	1340	1393	1189	995	689	552	377	552		103		144	
West Lakeland Twp (MUNICIPAL SYSTEM)	1393	1340	1393	1189	995	689	12		12		8		14	
Woodbury	657	632	657	632	258	215	2	1	2	1	25	5	57	23
Total (WLT ALL POETS)	7918	7621	7285	6709	3411	2617	857	621	820	138	265	98	425	159
Total (WLT MUNICIPAL SYSTEM)	7918	7621	7285	6709	3411	2617	317	244	280	138	170	98	295	159

*provided as FYI

Cost details updates in progress

1. Verifying treatment plant capacities
2. Neighborhood connections
 - a) Include cost to remove existing vessels
 - b) Update connection cost to better reflect community-specific conditions
3. Tank costs – prorating to include expedited projects
4. Demo of temporary facilities and municipal well sites
5. White Bear Lake considerations
6. Community-specific – include components missing from costs, verify connected homes, hydraulic modeling

Cost details updates in progress

1. Verifying treatment plant capacities

- a) Double check that capacities accurately reflect system needs
- b) Create a capacity analysis table to explain treatment capacities in a consistent way

Municipal system	Existing 2020 conditions	Current Options capacities	Updated Options capacities
Community A			
Community B			
Community C			
...			
Totals			

2. Neighborhood connections

- a) Include cost to remove existing vessels
 - Estimated at \$400 per POETS
- b) Update connection cost to better reflect community-specific conditions
 - Lake Elmo at \$5,600 due to lot sizes
 - Newport at \$7,500 due to shallow bedrock
 - Remaining communities continue to use \$2,500
- c) Re-evaluate connections with new data and updated costs

3. Tank costs – prorating to include expedited projects

- a) Expedited project connections previously not factored into tank cost covered by settlement

Cost details updates in progress

4. Demo of temporary facilities and municipal well sites

- a) Includes demo of masonry building, well, pump, water mains and valves, fence, radio tower, as applicable
- b) Restoration including backfill of trench and pavement
- c) Disposal of demo materials
- d) Mob/demob
- e) Contingency (25%), sub markup (5%), construction management (10%), general contractor O&P (15%), and bonds and insurance (3%)

Estimated
at a total of
\$79,000

5. White Bear Lake considerations

- a) Hydraulic modeling for Lake Elmo system
- b) Well placements in Woodbury to accommodate Lake Elmo interconnect
- c) Additional alternatives for Lake Elmo to be determined

6. Community-specific

- a) PIIC – include costs to modify the well, storage tank
- b) Oakdale - verify well configuration
- c) Newport to verify private wells/connections and storage requirements
- d) On-going discussions on West Lakeland
- e) Verifying hydraulic modeling after making changes – costs adjusted as necessary
- f) Additional items per comment memos and other feedback

General cost overruns

Refinement of estimates includes feedback from the communities so far which has increased accuracy, and Wood will continue to refine estimates as necessary.

Some feedback suggests significant cost increases based on changes to assumptions which will require more discussion with the communities and/or Co-Trustees.

Reminders:

- Costs were prepared as high level estimates in order to compare options within and amongst the communities
- SG-1 put together to help address the technical specifics of the plan

Questions and discussion

- Do these types of changes provide added confidence in plan?
- Are there more changes required, and if so, provide specifics (i.e. not just “this cost seems low”)?
- Is there more comfort in continuing to refine costs in this way or would it be better to just increase contingency percentage?

1-on-1 meetings beginning the week of November 30

- Address project eligible costs, general cost development, funding allocations, future rates, and other thoughts and questions