

Table 7.2. Modeling and cost results for each scenario.

Scenarios ¹	Communities Affected ²	Components	Water Provided ¹	Capital Cost (1000s)	% of \$700M Settlement Funds	Annual O&M ¹ Cost (1000s)	Total 20 Year Cost (1000s)	Total 20 Year Costs				
								Undiscounted			3% Inflation	
								% of \$700M Settlement Funds	O&M ¹ Only Cost per 1,000 Gal	Capital and O&M ¹ Cost per 1,000 Gal	Total 20 Year Costs (1000s) 3% Inflation	% of Settlement Funds
Community-Specific Scenario 1 (IX)	All except for Denmark and Newport	Municipal (44 wells) and non-municipal (969 wells) water addressed via Community-proposed projects.	55 mgd	\$405,820	58%	\$11,874	\$643,300	92%	\$0.59	\$1.60	\$724,879	104%
Community-Specific Scenario 1 (GAC)	All except for Denmark and Newport	Municipal (44 wells) and non-municipal (969 wells) water addressed via Community-proposed projects.	55 mgd	\$430,329	61%	\$18,823	\$806,789	115%	\$0.94	\$2.01	\$936,110	134%
Regional Scenario 2A One SWTP	All except for Denmark	SWTP on Mississippi River, plus treatment at 2070 non-municipal wells	52 mgd	\$391,306	56%	\$18,001	\$751,326	107%	\$0.95	\$1.98	\$875,000	125%
Regional Scenario 2B.1 Two SWTPs	All except for Denmark	2 SWTPs on Mississippi and St. Croix Rivers, plus treatment at 2070 non-municipal wells	52 mgd Total (43 mgd Mississippi SWTP, 8 mgd St. Croix SWTP)	\$415,021	59%	\$19,668	\$808,381	115%	\$1.04	\$2.13	\$943,508	135%
Regional Scenario 2B.2 Two SWTPs	All except for Denmark	2 SWTPs on Mississippi and St. Croix Rivers, plus treatment at 2070 non-municipal wells	52 mgd (24 mgd Mississippi SWTP, 28 mgd St. Croix SWTP)	\$422,837	60%	\$20,264	\$828,117	118%	\$1.07	\$2.18	\$967,338	138%
Regional Scenario 2C SPRWS	All except for Denmark	Transmission of SPRWS to communities, plus treatment at 2070 non-municipal wells	20-52 mgd (range between average and max daily demands)	\$347,425	50%	\$31,081 (based on ADD ¹ of 20 mgd)	\$969,045	138%	\$1.64	\$2.55	\$1,182,583	169%
Regional Scenario 2D One GWTP	Not a feasible solution due to lack of water supply for a single 52 MGD well field in Denmark											
Regional Scenario 2E Three GWTPs (GAC)	All except for Denmark	3 well fields, 2 WTPs for region-wide groundwater supply, plus treatment at 738 non-municipal wells	52 mgd	\$293,417	42%	\$15,002	\$593,457	85%	\$0.79	\$1.56	\$696,526	100%
Regional Scenario 2E Three GWTPs (IX)	All except for Denmark	3 well fields, 2 WTPs for region-wide groundwater supply, plus treatment at 738 non-municipal wells	52 mgd	\$280,832	40%	\$9,986	\$480,552	69%	\$0.53	\$1.27	\$549,160	78%

1. Acronyms

GAC = granular activated carbon
ADD = Average Day Demand

IX = ion exchange
Mgd = million gallons per day

SWTP = surface water treatment plant
O&M = operation and maintenance

SPRWS = St. Paul Regional Water Services
HI = Health Index (Minnesota Department of Health)

GWTP = groundwater treatment plant

2. Communities affected are those communities which would incur changes to their current water supply under each scenario. Residences and other non-municipal well owners will still receive individual treatment systems under each scenario as deemed necessary by the Minnesota Department of Health based on well testing.

Table 7.2. Modeling and cost results for each scenario (cont'd)

Scenarios ¹	Communities Affected ²	Components	Water Provided ¹	Capital Cost (1000s)	% of \$700M Settlement Funds	Annual O&M ¹ Cost (1000s)	Total 20 Year Cost (1000s)	Total 20 Year Costs				
								Undiscounted			3% Inflation	
								% of \$700M Settlement Funds	O&M ¹ Only Cost per 1,000 Gal	Capital and O&M ¹ Cost per 1,000 Gal	Total 20 Year Costs (1000s) 3% Inflation	% of Settlement Funds
Treatment 2040 Scenario 3A.2 – HI > 1.0 (IX)	All except Maplewood and Newport	Treatment at 28 municipal and 1,623 non-municipal wells	36 mgd	\$93,205	13%	\$5,824	\$209,685	30%	\$0.44	\$0.80	\$249,698	36%
Treatment 2040 Scenario 3A.2 – HI > 1.0 (GAC)	All except Maplewood and Newport	Treatment at 28 municipal and 1,623 non-municipal wells	36 mgd	\$127,356	18%	\$11,523	\$357,816	51%	\$0.88	\$1.36	\$436,983	62%
Treatment 2040 Scenario 3B.2 – HI > 0.5 (IX)	All except Newport	Treatment at 39 municipal and 1,647 non-municipal wells	63 mgd	\$150,241	21%	\$8,252	\$315,281	45%	\$0.36	\$0.69	\$696,526	53%
Treatment 2040 Scenario 3B.2 – HI > 0.5 (GAC)	All except Newport	Treatment at 39 municipal and 1,647 non-municipal wells	63 mgd	\$206,861	30%	\$18,151	\$569,881	81%	\$0.79	\$1.24	\$549,160	99%
Treatment 2040 Scenario 3C.2 – PFOS, PFOA and PFHxS >0 (IX)	All	Treatment at 40 municipal and 1,712 non-municipal wells	64 mgd	\$154,074	22%	\$8,465	\$323,374	46%	\$0.36	\$0.69	\$249,698	55%
Treatment 2040 Scenario 3C.2 – PFOS, PFOA and PFHxS >0 (GAC)	All	Treatment at 40 municipal and 1,712 non-municipal wells	64 mgd	\$212,109	30%	\$18,597	\$584,049	83%	\$0.80	\$1.25	\$436,983	102%
Treatment 2040 Scenario 3D.2 – HI > 0 (IX)	All	Treatment at 54 municipal and 2,272 non-municipal wells	89 mgd	\$214,646	31%	\$11,477	\$444,186	63%	\$0.35	\$0.68	\$371,975	75%
Treatment 2040 Scenario 3D.2 – HI > 0 (GAC)	All	Treatment at 54 municipal and 2,272 non-municipal wells	89 mgd	\$295,717	42%	\$25,790	\$811,517	116%	\$0.79	\$1.25	\$694,585	141%
Integrated Scenario 4 (IX)	All	Municipal (44 wells) and non-municipal (809 wells) water addressed while incorporating efficiencies.	52 mgd	\$403,810	58%	\$11,093	\$625,670	89%	\$0.58	\$1.65	\$381,532	100%
Integrated Scenario 4 (GAC)	All	Municipal (44 wells) and non-municipal (809 wells) water addressed while incorporating efficiencies.	52 mgd	\$424,599	61%	\$16,373	\$752,059	107%	\$0.86	\$1.98	\$711,817	124%

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