

Review of Findings

A recap of the findings of the Feasibility Report is outlined in this section. In short, the report compared the functionality and financial feasibility of three primary alternatives - construction of a new water treatment facility on a centralized site, together with the provision of new groundwater wells (allowing the decommissioning of the existing plants and wells); connection to City of Minneapolis water supply system (noting that some water production / treatment capacity would have to be maintained for times if and when the Mississippi River is unable to sustain the demands of the Minneapolis system); and the rehabilitation of the existing treatment facilities and maintain the status quo.

The report also reviewed the feasibility of a number of secondary issues - the provision of softened water to the City as a whole, or just to the North Memorial Hospital campus using either lime softening or a reverse osmosis (RO) membrane; and whether the City of Robbinsdale could provide a proportion of the water supply to the Joint Water Commission (cities of Crystal, New Hope and Golden Valley) during water emergency situations.

Based on the investigations and findings, the following tables summarize the findings in terms of cost and recommendation for the primary and secondary options included in the report.

Primary Options

Alternative	Total Cost of Alternative Above Existing Costs* (to 2050)	Recommendation
New Centralized Water Treatment Plant	\$ 15,986,109 (\$ 15,893,206 Capital)	Recommended. Provides the City with the most cost effective approach to supplying future water supply needs
Purchase Water from Minneapolis	\$ 46,482,083 (\$9,732,741 Capital)	Not Recommended. Substantial additional cost above recommended option, City loses control of rates and perceived risk of surface water reliance
Rehabilitation of Existing Water Treatment Infrastructure	\$ 18,932,000 (\$ 18,646,282 Capital)	Not Recommended. Not most cost effective as City would be continuing with maintenance of 3 separate plants and that the existing facilities are already approaching 60 years of age

*Note that all Total and Capital Costs currently include \$ 1,600,000 for provision of a new Tower.

The Feasibility Report recommends providing a New Centralized Water Treatment Plant at the vacant lot in the south eastern corner of Lee Avenue and 38th Avenue. The new plant would be sized for between 2 and 3 MGD (Million Gallons per Day). It is envisaged

that the new plant will contain gravity filters, which are preferred for the better sensory feedback to operational staff and the more stable filter runs rather than pressure filters (similar to existing infrastructure) that are fully enclosed.

The provision of the new centralized plant would permit the staged decommissioning of the three existing plants and two ground storage tanks. Associated with this action is the provision of new Drinking Water Wells to replace existing Wells 1 and 2 that are located in an area vulnerable to contamination. These existing wells would be decommissioned once the replacement infrastructure is in place and operational.

Secondary Option

Alternative	Sub Alternative	Recommendation
Softening	City Wide Lime Softening	Not recommended. Substantial additional Capital cost, additional space requirements and additional ongoing operations cost
	City Wide Reverse Osmosis (RO) Softening	Not recommended. High percentage of waste water and high salt concentrations in waste stream
	RO Softening for North Memorial Only	Possible - although further detailed evaluation needed to review financial implications
Include Capacity to Meet Partial Needs of JWC during Emergency		Not recommended. Increased costs for such infrequent and short duration events is not prudent

The Feasibility Report does not recommend community wide softening using either lime softening or reverse osmosis. Softening to provide water to the North Memorial campus may be possible, however a more detailed evaluation would be required to review the practicality and financial implications.

The Feasibility Report does not recommend sizing the new plant to provide additional capacity that could partially meet the needs of the Joint Water Commission cities of Crystal, New Hope and Golden Valley during times of emergency when the surface water supply from Minneapolis may be disrupted.