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Report urges Grafton to consider new supply sources while continuing joint effort with Cedarburg, Mequon

Village of Grafton officials are poised to continue exploring ways to bolster the municipal water supply, including working with the cities of Cedarburg and Mequon on a regional system that could tap into Lake Michigan.

The village's Public Works Board on Monday reviewed a recently completed report that recommends the three municipalities study the sustainability of groundwater supplies, agree to continue collaborative planning and solicit input from residents on water-related issues.

The report, based on a 15-month study done by the engineering firm CH2M HIll, ranks accessing treated lake surface water first among options that also include buying water from the City of Milwaukee and North Shore Water Commission, installing new wells near the lake and maintaining current groundwater supplies.

Linda Mohr, a CH2M Hill project engineer, said the rankings were based on several criteria, including community acceptance, long-term reliability, supply ownership and operation and maintenance requirements.

"There are many considerations beyond cost," Mohr told the board.

The study was undertaken as a preliminary investigation into a regional water system to jointly serve participating municipalities. Included in the report are projected water demands for each community in 2030 and 2040.

In 2010, the municipalities distributed a collective average of 3.4 million gallons per day. That demand was expected to be higher this year due to drought conditions.

The report estimates that daily water demands are likely to increase to 4.68 million gallons by 2030 and to 5.36 million gallons by 2040.

Grafton currently has six wells, two of which are being treated for contaminants, and is expected to need another well by 2020. Beyond that, there is a clear need to explore other options, officials said.

"I don't want to presuppose that the Village of Grafton must go to lake water," said Tom Krueger, director of the village's water and wastewater utility.

"We don't need to eliminate groundwater as an option but need to look at other alternatives."

Cedarburg and Mequon also have growing water needs that have fueled their participation in a regional study.

Cedarburg has five wells, three of which are being treated for contaminants, and is expected to need another well within 15 years.

Mequon operates its own water utility but also purchases lake water from Milwaukee and the North Shore Water Commission for 30% of the city's residents and parts of Thiensville and Bayside.

Because Grafton and Cedarburg are in the Lake Michigan drainage basin, they would not have to seek approval from Great Lakes states to take water from the lake.

The cost of a regional system would depend on how much water the municipalities buy from Milwaukee or the North Shore Water Commission or if they build their own intake system and treatment plant.

According to the report, building an independent system would cost an estimated $96 million. Buying water from Milwaukee and North Shore would be the most expensive option — an estimated $103 million — because pipes and pumping stations would have to be extended from both supplies to the three municipalities.

Mohr said that short-term options, including maintaining current water systems, could be part of a long-term approach that eventually includes tapping into lake water.

Local communities need to answer several key questions, including whether groundwater supplies are adequate and reliable and pose fewer health risks than surface water, she noted.

"There is a lot of information for you to draw on," Mohr told the board.

Major recommendations for the three municipalities offered in the report include:

• Expanding the long-term water supply conversation to include elected officials and citizens.

• Entering into an agreement to continue joint planning.

• Preparing public education materials to increase residents' understanding of the need for water, the value of water, the communities' water supply alternatives, water regulations and other local planning considerations.

•Studying long-term sustainability of groundwater supplies.

"Cedarburg, Grafton and Mequon will continue to communicate and looking at options," Krueger said. Those options, he added, should include "interim alternatives for the next five, seven or eight years."

The Public Works Board accepted the report, which will be forwarded to the Village Board for

review.