



Brown County Water Pipeline is Up and Running

by Patrick Harrington, Source Water Protection Specialist

This past August, a pipeline constructed from Manitowoc to Brown County went online bringing Lake Michigan water to six suburbs of Green Bay. The Central Brown County Water Authority (CBCWA) was formed by the six communities of De Pere, Allouez, Howard, Bellevue, Lawrence and Ledgeview to address concerns for their water source. According to the CBCWA website, the construction of the 65 mile long main had a total cost of about \$106 million. The pipeline now delivers treated Lake Michigan water from the City of Manitowoc to each of the communities.

Need

This unique project came about through several factors lining up. First, the need for the communities to find an alternative water source came about due to the dramatic drawdown of the sandstone aquifer in Brown County. Research has show that the drawdown of this aquifer was over 350 feet by the time the pipeline was finished. Moreover, due to the drawdown radium levels in the municipal wells had risen. Stricter standards set in place by the EPA would force the communities to address the rising radium levels. Treatment of radium for the well water would be very costly and would not address the problem of depletion of the aquifer, so the communities needed to find an alternative source for their drinking water. Collectively, the six water systems serve over 70,000 people.



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Brown County . . .

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With other water sources being sought by the communities in Brown County, not only recently but back when the original pipeline was constructed, the option of using water from the world's largest freshwater bay was not a viable one. The water quality in Green Bay is too poor and summer water temperatures are too high to make it a feasible drinking water source.

Political Process

This is not the first time that the construction of a pipeline to Lake Michigan has been a contentious issue in the Green Bay area. The City of Green Bay constructed its first pipeline, 30 miles long, in 1957 at a cost of \$5 million. By the way, that was the same time that Lambeau Field was constructed for about 1/5th the cost of the pipeline project. Because of the contentiousness of the pipeline, the Mayor and every City council member that supported the original project were voted out the following election.

The CBCWA signed an agreement with Manitowoc in July 2004 to deliver water clearing the way for the construction of the pipeline. The agreement with Manitowoc was forged only after negotiations and wrangling between the suburbs and the City of Green Bay failed to produce an agreement. The agreement called for the CBCWA purchasing the treated water from Manitowoc for \$.51 per 1000 gallons in the first year and \$.81 per 1000 gallons the second year. In turn, the CBCWA is selling the water to the communities for \$3.31 per 1000 the first year.

Status of the Aquifer

So how has the communities changing to a surface water source affected the aquifer? According Dave Hart, hydrogeologist with the Wisconsin Geological and Natural

History Survey, the extent of full impact on the aquifer cannot be determined for about 2 years. But static water levels in the central Brown County area have already rebounded approximately 50 feet. Hart is monitoring the water levels in cooperation with the municipal water system operators who are recording static water levels and submitting reports to Hart monthly.

Unlike their counterparts in southeastern Wisconsin, providing Lake Michigan water out to the suburbs was not an issue with regards to the Great Lakes Compact. All of Brown County lies within the Lake Michigan watershed; therefore, as communities utilize the water and it is treated then discharged, it remains within the watershed.

Summary

Although this project was somewhat expensive and required several years of negotiations, planning and construction, it shows that communities can work together to find a solution to regional problems that are both economical and environmental. In the end, everyone can end up benefiting from that cooperation.

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