



Waukesha Water Utility

SERVING WAUKESHA SINCE 1886

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Testimony of Dan Duchniak, General Manager, Waukesha Water Utility

February 18, 2016

Thank you. I am Dan Duchniak, the general manager of the Waukesha Water Utility.

As someone who has spent their career working to ensure the availability of healthy drinking water, I understand the importance of the unique resource of the Great Lakes, and the need to protect it. And I know that is why so many people are here today to share their thoughts on our application to borrow and return Lake Michigan water.

Waukesha supported and helped pass the Great Lakes Compact in Wisconsin, and our application is in no way a threat to it. Just as importantly, our application is not a threat to the Great Lakes. We will borrow 1/1,000,000 of 1% of Great Lakes water and return the same amount of water, after use and very high levels of treatment. This will set a high standard for any future diversion requests – that the same volume of water borrowed is returned.

Waukesha's application is based on unique circumstances

Our request is the result of unique circumstances. Our water supply is severely depleted, due to a layer of rock that restricts recharge and due to high regional use in the most populated regions of Wisconsin and Illinois. Naturally occurring contaminants in our water supply are increasing. We are under a court order to bring our drinking water into compliance with the federal standards for radium, a carcinogen. We are a leader in water conservation efforts, but conservation does not prevent our need for a Great Lakes water supply.

Although we are 1.5 miles outside the surface divide of the Great Lakes, we are actually within the groundwater divide. Our use of groundwater negatively affects resources inside and outside the Great Lakes Basin. Borrowing and recycling Lake Michigan water, on the other hand, is environmentally sustainable.

Decisions like this one, about drinking water, are among the most critical of those that are made by any community. They must be based on thorough, long-term planning and not on politics. In our case, the conclusion that Lake Michigan is our only reasonable water supply alternative is the result of a decade of exhaustive study of the alternatives by the city, analysis by a panel of 32 experts for regional planners,

five years of review by the Wisconsin Department of Natural Resources (DNR) and more than 100 public meetings.

The Compact was created to draw a bright line, at the border of counties that straddle the Great Lakes surface divide, on the use of Great Lakes water. It also allows states to address local public health or environmental problems within straddling counties by using Great Lakes water, but only if they return the water after use and treatment. Just as importantly, the Compact was designed to ensure that decisions on water use are made on an objective and scientific examination of the facts of each case, to ensure that decisions and the Compact itself can withstand legal challenges.

The claim that we have a reasonable alternative is fiction

Because of the importance of making fact-based decisions, I wanted to take the time to address several issues in particular. Since many commenters around the Great Lakes seem to be relying on the views of an organization called the Compact Implementation Coalition (CIC), I would like to take this opportunity to explain some of the flaws with its claims. CIC says that the Waukesha does not need a Lake Michigan water supply because the deep aquifer would provide sufficient water if Waukesha served a smaller service area than required by state law. This is commonly known as the CIC alternative.

CIC's alternative was developed without consulting with experts on Waukesha's water system and without consideration of Waukesha's entire application. In addition, no independent technical peer review was done on the CIC proposal before this alternative was made public. The proposal that we can continue to use our existing wells is fiction. The state's analysis shows that the numbers don't add up.

The DNR reviewed the CIC claim, and found that Waukesha's deep aquifer wells could not provide enough water for Waukesha, even for CIC's hypothetically smaller service area. Consequently, CIC's alternative would need to include more wells, increasing environmental impacts, even to meet its lower projected demand.

Among the flaws in the CIC alternative pointed out by the DNR is that our actual well capacities are less than CIC assumed. The DNR review also noted that the CIC alternative failed to consider that reverse osmosis treatment of deep groundwater wastes 10% to 20% of the water supply, requiring greater aquifer pumping and causing significant harm to the environment from further drawdowns. The CIC alternative fails to meet radium regulations under all water system operating conditions, thereby failing to meet a requirement of the court order for Waukesha to comply with the federal drinking water standard for radium, a carcinogen.

Besides not providing enough water, even for CIC's proposed smaller service area, CIC's proposed reliance on the deep groundwater is not sustainable. Groundwater modeling conducted in November 2015 showed that projections of moderate water use across groundwater users, developed by regional planners, would lead to an additional groundwater drawdown of 200 feet or more over the next 50 years. This groundwater aquifer, which is connected to the Great Lakes, is already drawn down hundreds of feet and is one of only two state-designated groundwater management areas because of its severe depletion.

To supplement the deep groundwater, Waukesha would need to develop additional shallow aquifer wells. The DNR has rejected that. It is not a reasonable alternative because of the extensive harm to wetlands that would result. The DNR's own modeling found more than 900 to 1,000 acres of wetlands

would be harmed if a combination of deep and shallow wells was used – ***even if Waukesha would use 15% less water than what is projected.***

Another critical fact not considered by CIC is that water quality in the shallow aquifer is much more vulnerable to contamination in an urbanized area. In fact, we had to suspend the use of two shallow wells this month because chloride levels exceeded secondary federal standards and to prevent corrosive water from entering the distribution system.

During its extensive analysis, the DNR also determined that water conservation cannot prevent the need for a Lake Michigan water supply for Waukesha. Waukesha is already a leader in water conservation, including the adoption of a daytime sprinkling ban, conservation rates that go up with increased use, toilet rebates, public education, industrial incentives and outreach, and more. Waukesha is ahead of schedule on its goal to achieve 10% measurable water savings, in compliance with Wisconsin Compact implementation rules. But continued use of local groundwater is not environmentally sustainable.

The deep aquifer in Waukesha is hydrologically connected to the Great Lakes

For all that are concerned about the Great Lakes ecosystem, we cannot forget the importance of the connected groundwater, as was recently highlighted by the International Joint Commission (IJC). The DNR has concluded that the deep groundwater wells Waukesha currently uses are hydrologically interconnected to the Lake Michigan basin. They also concluded that if Waukesha were to cease pumping from the deep aquifer, it would contribute to a decrease in groundwater and surface water from the Lake Michigan basin being induced into the deep aquifer system.

These conclusions result in the fact that Waukesha is currently pumping Great Lakes basin water from the deep aquifer and diverting it to the Mississippi River basin. This proposal will end the loss of Great Lakes water. The compact also states that “substantive consideration” will be given to this point when considering the request because it is a unique circumstance that exists for Waukesha.

The purpose of the application is not about growth

I want to also comment on the claim that Waukesha is seeking Great Lakes water for the sake of future growth. This claim is untrue. In fact, 70% of Waukesha’s service area is already developed. Another 15% is protected as environmental corridors and just 15% of the service area is available for future development. Only 0.5% of the land outside of the city limits is undeveloped industrial land and 0.2% is undeveloped commercial land.

Population growth in the service area is expected to be minimal – only 0.5% per year – until build-out in about 2050. Our application is not about future growth, it’s about continuing to provide service to existing residents.

Wisconsin’s law requires that water supply areas be consistent with wastewater service areas, which were developed more than 30 years ago. By having our water supply service area match the historical wastewater service area, we will comply with the Compact’s requirements to maximize the return of Great Lakes Basin water and to minimize the return of out-of-Basin water. For that reason, Waukesha’s service area includes portions of four other communities.

Waukesha already serves customers beyond city limits, and the creation of a state-approved service area definitely sets the limits of where Waukesha can provide drinking water.

Return flow will benefit a Lake Michigan tributary

At the suggestion of DNR water staff, Waukesha will return the withdrawn water via the Root River, a tributary to Lake Michigan. The Waukesha wastewater facility includes advanced treatment processes (dual media filtration and ultraviolet light disinfection). Waukesha's return flow to the Root River in Franklin will be extremely high quality water. The return flow will actually improve the water quality of the Root River for parameters such as phosphorus and total suspended solids because the return flow water quality is better than that of the river. The DNR has proposed stricter permit limits for Waukesha's discharge than existing wastewater discharges to the Root River, to other area rivers, or directly to Lake Michigan. We will meet those requirements.

Waukesha does not have combined sewers (sewers that carry both wastewater and stormwater) and the wastewater treatment plant design ensures that there is no risk of untreated or partially treated water being discharged to the Root River or Lake Michigan.

Low flow conditions are common on the Root River. Waukesha's return flow will improve flow during dry periods to allow for fish movement. That increased flow will benefit the Root River Steelhead Facility, a DNR egg collection facility, by allowing fish to reach it during those low flow periods. That will help meet Great Lakes fish stocking quotas, creating more fishing opportunities along the Root River and offshore in Lake Michigan. In 2015, even Indiana used the Root River facility as a source of Chinook salmon eggs because of the record low numbers of fish returning to Lake Michigan tributaries.

Waukesha is not a foot in the door for illegal diversions

Waukesha's proposal to legally borrow and return Great Lakes water is in no way a precedent or "foot in the door" or "crack in the egg" for water to be illegally pumped beyond straddling counties. Under the Compact, 99% of the population of the United States outside of the Basin is ineligible to even apply for Great Lakes water. Nothing about Waukesha's application changes that fact.

The authors of the Compact understood that providing limited exceptions for communities in need in straddling counties would not open the door for long-distance diversions. And, by requiring return flow, they ensured that the limited exceptions would not harm the Great Lakes. Any statements claiming the opposite are simply meant to inflame the discussion and mislead the public into thinking approval for Waukesha will mean something it does not.

The straddling counties provision in the Compact allows states to meet local public health or environmental issues in a very limited area. Without that provision, the agreement that created the Compact, and its protection of the Great Lakes, would not have been passed by all the Great Lakes states. It is essential that the provision now be implemented in good faith and on the basis of an objective, scientific review. Approval of the Waukesha Application will validate the Compact agreement and its protections of the Great Lakes, ensuring this precious resource will be preserved for future generations.

This is not a choice between meeting Waukesha's water needs or protecting the Great Lakes. Under the Compact, we can do both.

Thank you for your consideration of my comments and of our application.