Racine Water and Wastewater Utilities

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January 26, 2018

Mr. Adam Freihoefer
Water Use Section Chief
Wisconsin Department of Natural Resources
101 S Webster St.
Madison, WI 53703

Dear Mr. Freihoefer:

The City of Racine, Wisconsin, by means of the attached application, applies for a diversion of Great Lakes water under Wisconsin Statutes s. 281.346(4)(b) and the Great Lakes-St. Lawrence River Basin Water Resources Compact.

Sincerely,

Keith Haas
General Manager

Enclosures

800 Center Street, Room 227 Racine, Wisconsin 53403 262-636-9181 (Phone) 262-636-3933 (Fax)

THE CITY OF RACINE

APPLICATION FOR WATER DIVERSION

JANUARY 26, 2018

Ruekert & Mielke, Inc.

W233 N2080 Ridgeview Parkway

Waukesha, Wisconsin 53188-1020

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EXECUTIVE SUMMARY

The City of Racine requests approval to divert an average of 7.0 million gallons per day from Lake Michigan to extend public water supply to the area of the Village of Mount Pleasant located within the Mississippi River basin.

The Great Lakes–St. Lawrence River Basin Water Resources Compact has prohibited diverting Great Lakes water for use outside the Great Lakes basin. An exception allows diversions to communities that straddle the edge of the Great Lakes basin. The Great Lakes–St. Lawrence River Basin Water Resources Compact refers to these communities that lie partly inside and partly outside the Great Lakes basin as straddling communities. Wisconsin implemented the Great Lakes–St. Lawrence River Basin Water Resources Compact in Wisconsin Statutes s. 281.343 and 281.346 and related regulations.

The Village of Mount Pleasant straddles the divide between the Great Lakes basin and the Mississippi River basin. Therefore, it is a straddling community under the Great Lakes–St. Lawrence River Basin Water Resources Compact. The City of Racine requests approval for a straddling-community diversion to supply water to the area of the Village of Mount Pleasant that lies outside the Great Lakes basin. This request meets the Great Lakes–St. Lawrence River Basin Water Resources Compact requirements for a straddling community diversion set out in Wisconsin Statutes s. 281.346(4)(c).

The City of Racine seeks approval for a diversion volume sufficient to meet forecasted demands for water resulting from expected development in the Village of Mount Pleasant along the Interstate-94 corridor. Extending service to this area cost-effectively extends the Racine Water Utility's existing regional water system.

The diversion would require little new water-treatment-facility infrastructure. The Racine Water Utility built its water system to serve historical industrial water user of the City of Racine. The existing wastewater treatment capacity of the Racine Wastewater Utility is sufficient to handle the return flow from the diversion area to the Great Lakes basin.

The City of Racine does not seek approval for a new or increased withdrawal from Lake Michigan. The City of Racine would supply the diversion volume from its existing withdrawal capacity.

BACKGROUND

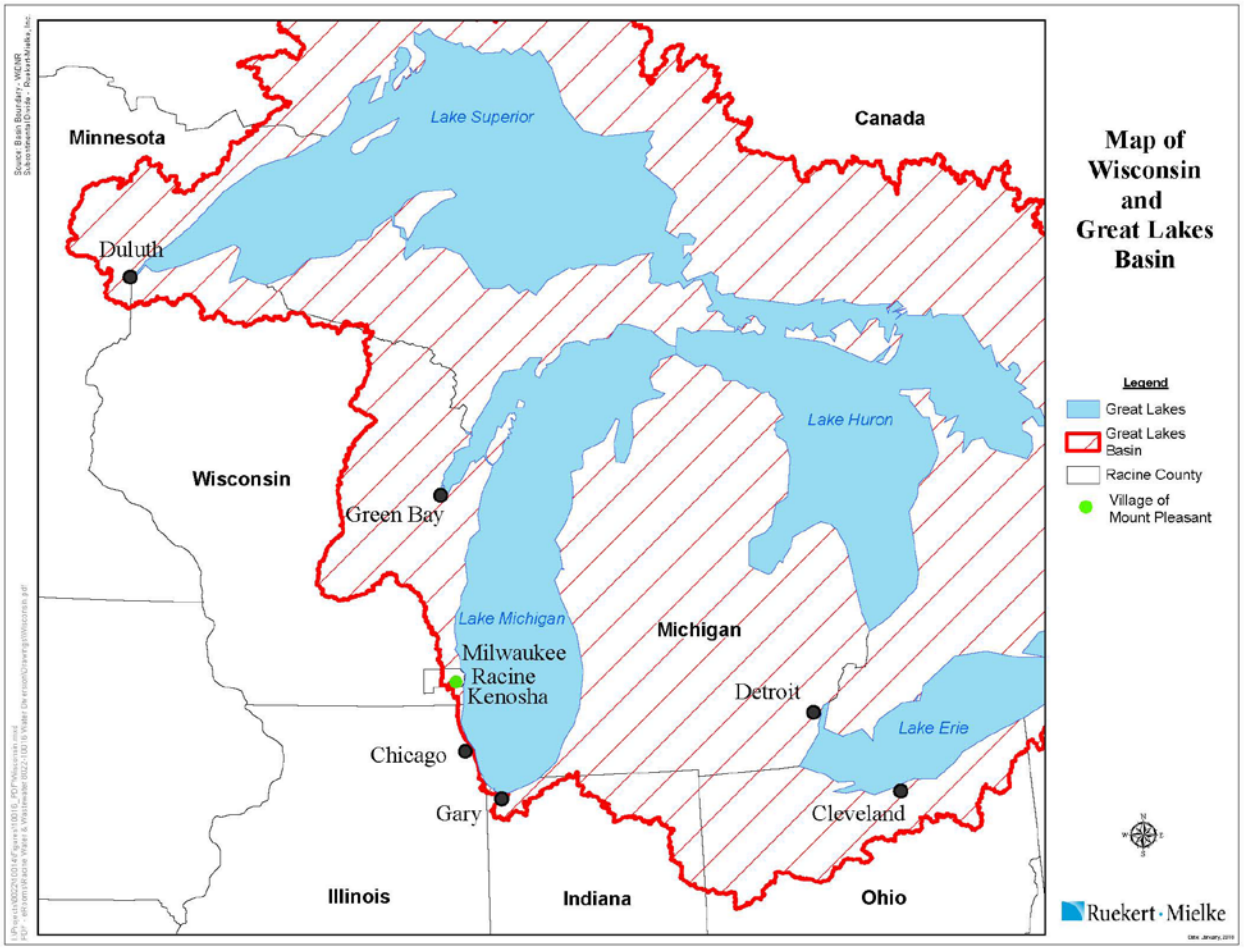
The City of Racine (Racine) is a historically industrial city located on the western shore of Lake Michigan in southeastern Wisconsin. Racine owns the Racine Water Utility (RWU). RWU is a public water utility that uses Lake Michigan for its water supply. Currently, Racine provides Lake Michigan water to residents in the City of Racine, the Village of Elmwood Park, the Village of North Bay, the Village of Sturtevant, the Village of Caledonia, the Village of Wind Point, the Village of Somers, and portions of the Village of Mount Pleasant (Mount Pleasant). Racine serves

34,037 customer accounts, comprising an estimated population of 98,423 in its existing service area.

All of Racine's current water customers are located within the Great Lakes basin. Mount Pleasant recently requested that Racine provide water to the portion of its community that lies outside the Great Lakes basin.

Map 1 shows the location of the subcontinental divide, which separates the Great Lakes basin from the Mississippi River basin. In southeastern Wisconsin, the subcontinental divide runs northwest-southeast across the region. At the Wisconsin-Illinois border, the subcontinental divide is less than five miles from the shore of Lake Michigan.

Map 1



Mount Pleasant lies in the basins of both the Great Lakes and the Mississippi River. As Map 2 shows, the subcontinental divide traverses Mount Pleasant. Therefore, Mount Pleasant qualifies as a straddling community under the Great Lakes–St. Lawrence River Basin Water Resources Compact (Compact).

Map 2

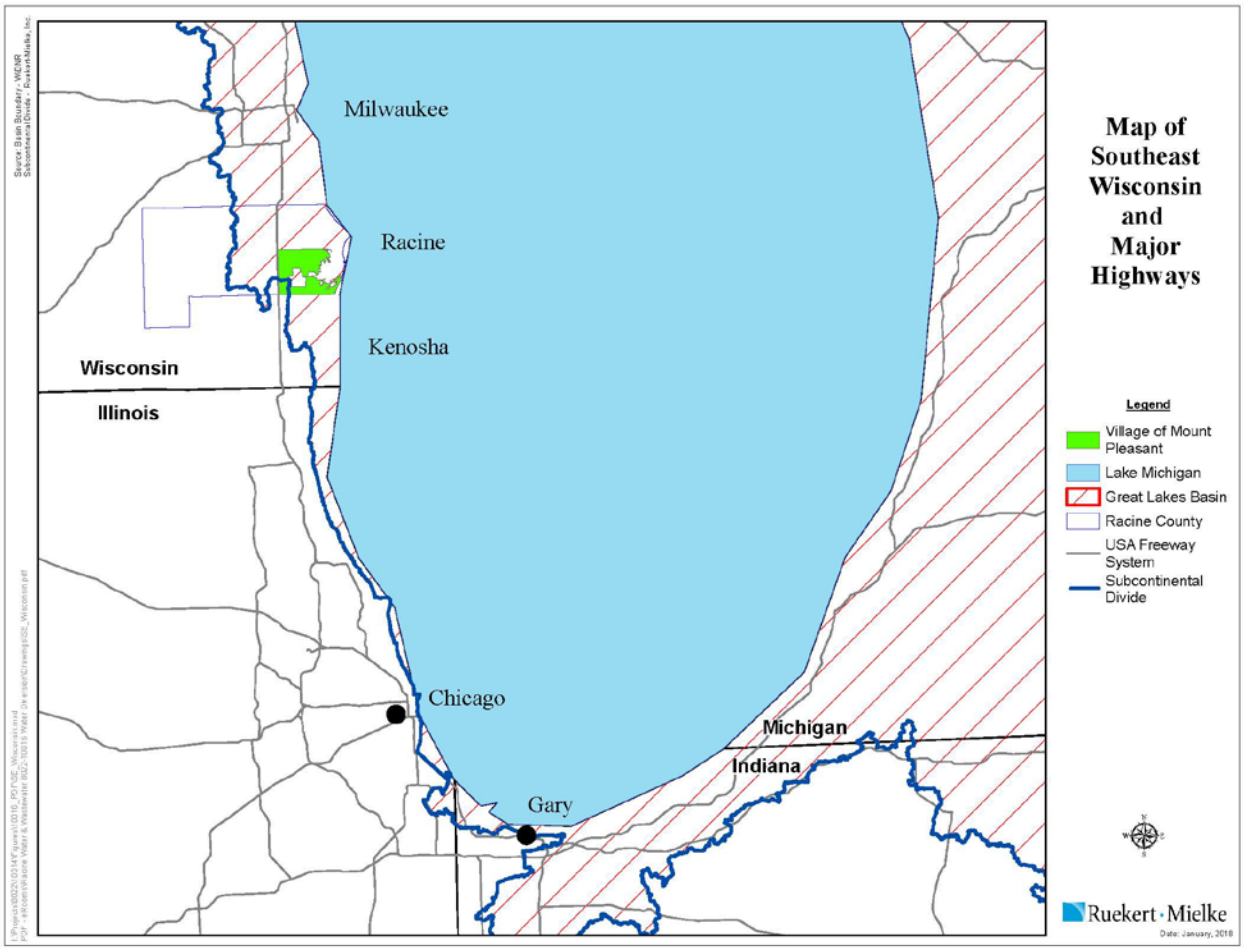
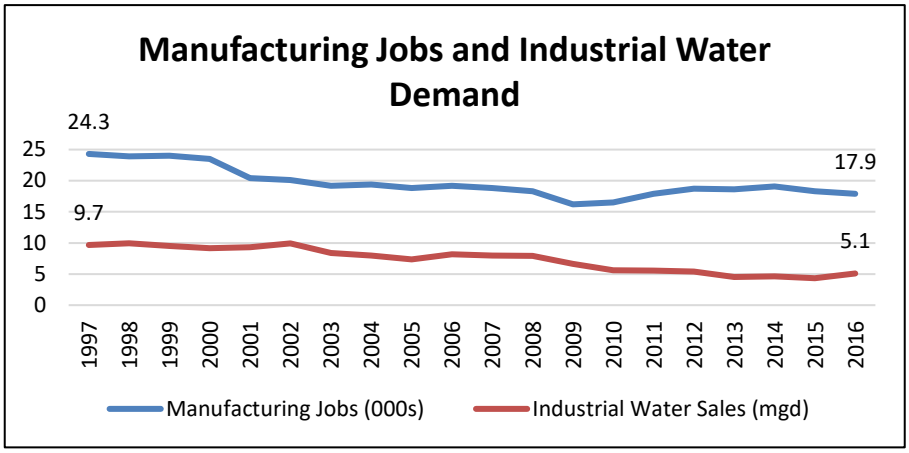


Figure 1



In 2016, Racine provided on average of 16.9 million gallons per day (mgd). Racine has seen a decline in water use, particularly among industrial customers. From 1997 to 2016, industrial water sales fell by 47 percent. That decline corresponded with a loss of manufacturing jobs, as data from Racine and the Bureau of Labor Statistics[1] in Figure 1 shows.

Racine expects that the extension of Lake Michigan water and municipal sanitary sewer to the diversion area within Mount Pleasant would meet the forecasted demands of development in this area. Foxconn, a Taiwanese electronics manufacturer, has announced plans to build a manufacturing facility partly within the diversion area. New development in the diversion area would provide jobs for the residents of southeastern Wisconsin.

PROPOSAL

Racine hereby applies for approval to divert Lake Michigan water to the area of Mount Pleasant in the Mississippi River basin.

Legal Framework

Wisconsin Statutes s. 281.346(4)(b)2 permits a person who operates a public water supply system to apply for approval of a new diversion for public water supply purposes. As the owner of the public water supply system that would supply water across the subcontinental divide, Racine is the proper party under Wisconsin Statutes s. 281.346(4)(b)2 to apply for approval of this diversion. Mount Pleasant does not have a public water supply utility and therefore cannot apply.

RWU is a public water system as defined by Wisconsin Administrative Code NR 811.02(56) that provides regional retail service. It is a public water utility under Wisconsin Statutes s. 196.01(5) subject to the Public Service Commission of Wisconsin (PSC) regulation.

[1] Bureau of Labor Statistics. Downloaded November 29, 2017. "Databases, Tables & Calculators by Subject." https://data.bls.gov/timeseries/SMU55395403000000001?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true.

Generally, under the Compact, water may not be diverted from the Great Lakes basin into a watershed outside of the Great Lakes basin. The Compact allows the diversion of water to communities that straddle the edge of the Great Lakes basin. Mount Pleasant lies in both the Great Lakes and Mississippi River basins and is a straddling community.

Racine submits its application for diversion approval under the straddling-community criteria described in Wisconsin Statutes s. 281.346(4)(c) to supply water to the portion of Mount Pleasant that lies in the Mississippi River basin. This application and its appendices address the requirements for a straddling-community diversion under the Compact, Wisconsin Statutes, and Wisconsin Administrative Code.

See Appendix C for all legal requirements for a straddling-community diversion and how Racine fulfills these requirements.

Diverted Water

Racine requests approval to divert up to an average-day use at full build-out in 2050 of 7.0 mgd to extend service to customers outside of the Great Lakes basin. Table 1 shows the forecasted average daily volume diverted, returned to the Great Lakes basin, and consumptively used. Appendix D describes the calculation of these volumes in detail.

Table 1

Forecasted Average Daily Volume at Full Build-out in mgd		
Diversion	Return Flow	Consumptive Use
7.0	4.3	2.7

To comply with Wisconsin Administrative Code Ch. NR 852, Racine developed a water-conservation plan, shown in Appendix E. After analyzing conservation measures, Racine determined that several measures would be cost-effective. These measures include educating the public on how to conserve water and evaluating and recommending revisions to the landscaping ordinances of the communities in which it provides service.

Foxconn's proposed manufacturing campus would straddle the subcontinental divide, with some buildings west of the divide in the Mississippi River basin and some east of the divide in the Great Lakes basin. RWU would deliver all water to Foxconn west of the subcontinental divide. Therefore, the diversion volume includes all of the water delivered to Foxconn.

Consumptive Use

Racine estimates that water use in the Mississippi River basin would consumptively use up to an annual daily average of 2.7 mgd based on consumptive-use factors from the US Geological

Survey[2]. This 2.7 mgd includes 2.1 mgd of consumptive use for Foxconn's cooling towers based on information provided by Foxconn. Appendix D describes the consumptive-use estimates in greater detail.

Return Flow

The proposal maximizes the amount of Great Lakes water returned to the Great Lakes basin. All water diverted, less an allowance for consumptive use, would be returned to Lake Michigan. Return flow at full build-out in 2050 would be 4.3 mgd on an average day.

The Mount Pleasant Sewer Utility would collect wastewater from the diversion area. The Mount Pleasant Sewer Utility would pump the wastewater through pressurized dual force mains to Racine's wastewater treatment facility. The Racine Wastewater Utility would treat the wastewater and return it to Lake Michigan. Appendix F provides evidence of support from these entities.

The Racine Wastewater Utility would treat the return flow to meet all applicable permit standards under its Wisconsin Pollutant Discharge Elimination System permit and Wisconsin Statutes s. 283.31. The Racine Wastewater Utility's treatment facility can accommodate the forecasted wastewater volume and quality without requiring a Wisconsin Pollutant Discharge Elimination System permit modification. Racine Ordinance 7-02 requires all wastewater customers, including industrial customers, to discharge wastewater that meets its standards. In addition, industrial customers are required to meet state and federal categorical standards. If a customer produces water that does not meet its standards, the customer must pretreat the wastewater before discharging it to the Racine Wastewater Utility.

Return flow would meet all applicable water-quality discharge standards under local, state, and federal law. The proposed wastewater treatment would prevent the introduction of invasive species to the Great Lakes basin.

Racine's proposed diversion minimizes the volume of Mississippi River basin water returned to the Great Lakes basin. The wastewater utilities would minimize infiltration and inflow by building efficient sewers, such as modern-gravity sewers and pressurized sewers, and by separating systems for sanitary sewer and storm water. Modern construction materials and techniques would be used in the design and construction of the sewers. These would create a system less susceptible to infiltration and inflow. In addition, Racine would require new customers connecting to the Lake Michigan water supply to also connect to the Racine Wastewater Utility. Racine expects the water service area to be the same as the sanitary sewer service area. No Mississippi River basin surface water sources contribute to the return flow.

[2] Schaffer, Kimberly, and Runkle, Donna. 2007. "Consumptive Water-Use Coefficients for the Great Lakes Basin and Climatically Similar Areas" U.S. Geological Survey Scientific Investigations Report 2007–5197. https://pubs.usgs.gov/sir/2007/5197/pdf/SIR2007-5197_body_pt1.pdf.

Water and Wastewater Metering

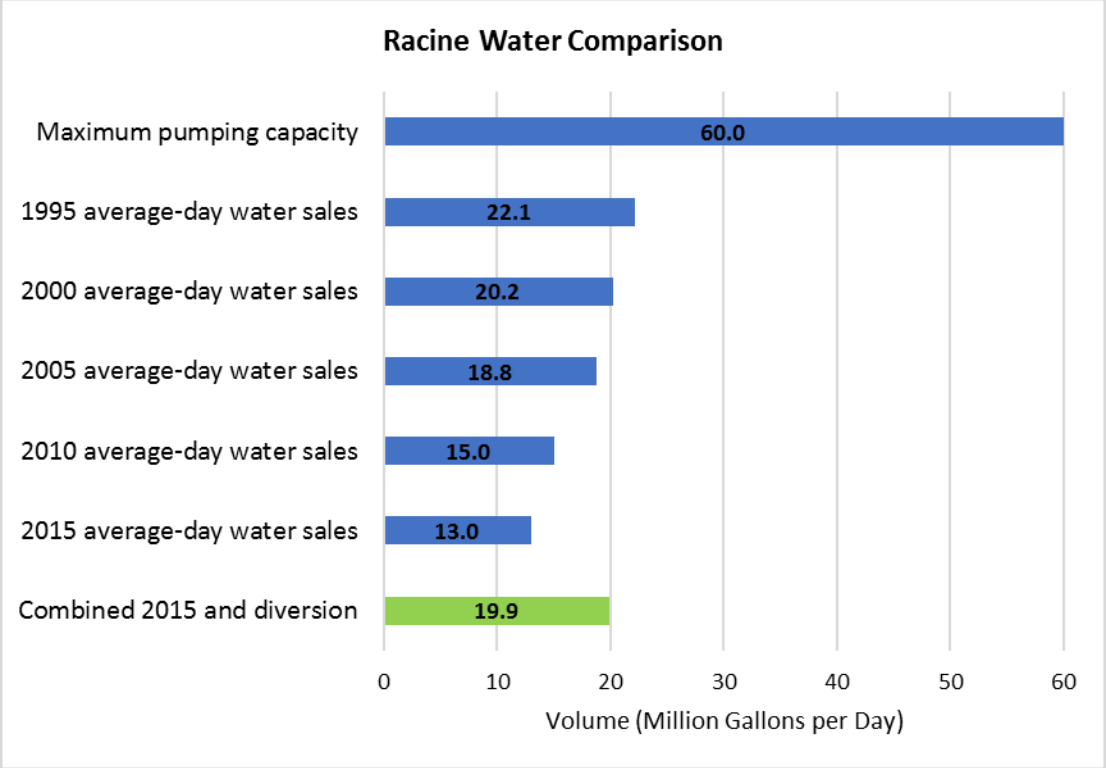
Racine would meter water sales to customers in the proposed diversion area. Racine would sum the total customer meter readings outside the Great Lakes basin for diversion-reporting purposes. The wastewater collection interceptor mains would include flow metering to account for wastewater flows from the diversion being returned to the Great Lakes basin.

Volume Impacts

The diversion would not cause significant adverse impacts to the quantity of water in the Great Lakes. With 1,108 cubic miles of water, Lake Michigan contains more than 1.2 quadrillion gallons. Racine's proposed diversion would consumptively use a daily average volume equaling 0.00000002 percent of the volume of Lake Michigan.

Racine is not seeking to increase its permitted withdrawal from Lake Michigan. The average-day diversion volume requested is twelve percent of Racine's authorized withdrawal volume. Figure 2 compares Racine's recent average daily water sales plus the proposed diversion volume to Racine's historical water sales and its authorized withdrawal capacity.

Figure 2



The water conservation plan in Appendix E decreases the volume of water that RWU will pump and treat in the future.

Infrastructure Impacts

Racine built its existing water treatment system to provide water to Racine's historical customers, including its industrial customers. Much of the infrastructure needed for Racine to provide water to the diversion area already exists. Racine has capacity and authorization to withdraw up to 60 mgd from Lake Michigan. In 2016, Racine pumped less than 17 mgd on an average day. Racine forecasts an average-day diversion volume of 7.0 mgd at full build-out. To service all of its customers at full build-out, including customers in the diversion area, Racine forecasts withdrawing 38.9 mgd on an average day. Racine's authorized withdrawal is more than 20 mgd larger.

To provide water to the diversion area, Racine would need to upgrade one of its high-lift distribution pumps from 10 mgd to 20 mgd and add more ultra-filtration membranes to meet winter cold-water treatment demands. For distribution infrastructure, Racine would need to add new mains and up to two new pumping stations.

The Racine Wastewater Utility would not need to expand its wastewater treatment facility to accommodate the proposed diversion. However, additional development in the Great Lakes basin may require a future wastewater-treatment expansion. The Racine Wastewater Utility typically treats 20 mgd of wastewater. It is designed for an average flow of 36 mgd and a peak hourly flow of 108 mgd. Since the proposed diversion at full build-out would result in an average-day 4.3 mgd of return flow, the total average-day volume would be 24.3 mgd, 11.7 mgd less than the system's average day design flow.

The Mount Pleasant Sewer Utility would need to install new wastewater collection facilities to accommodate return flow.

APPENDIX A: ABBREVIATIONS

Compact	Great Lakes–St. Lawrence River Basin Water Resources Compact
DNR	Wisconsin Department of Natural Resources
mgd	million gallons per day
Mount Pleasant	Village of Mount Pleasant
PSC	Public Service Commission of Wisconsin
Racine	City of Racine
RWU	Racine Water Utility

APPENDIX B: APPLICATION BASIC INFORMATION

Applicant

Name	City of Racine
Mailing Address	800 Center Street, Room 227 Racine WI 53403-1481
Contact Person	Keith Haas, Water Utility General Manager
Phone	262-636-9434
Email	keith.haas@cityofracine.org

Supporting Entity – Wastewater Collection and Transport

Supporting Entity	Village of Mount Pleasant
Mailing Address	8811 Campus Drive Mount Pleasant, WI 53406
Contact Person	Tony Beyer, Sanitary Sewer/Storm Water Utility Manager
Phone	262-664-7849
Email	tbeyer@mtpleasantwi.gov
Evidence of Support	See Appendix F

Supporting Entity – Wastewater Treatment

Supporting Entity	Racine Wastewater Utility
Mailing Address	800 Center Street, Room 227 Racine WI 53403-1481
Contact Person	Keith Haas, General Manager
Phone	262-636-9434
Email	keith.haas@cityofracine.org
Evidence of Support	See Appendix F

Information about the Proposed Diversion

Type	Straddling community
Public Water Supply Purposes	See Appendix E
Source of Withdrawal	Surface water from Lake Michigan
Location of Withdrawal	101 Barker Street Racine, WI 53402

APPENDIX C: LEGAL REQUIREMENTS

Straddling Community Diversion Exception and Return Flow Requirements

Mount Pleasant is a straddling community under Wisconsin Statutes s. 281.346(1)(t). It lies partly within the Great Lakes basin. Mount Pleasant has requested that Racine extend water service to areas outside the Great Lakes basin.

Racine is the owner of the public water supply system that would be serving water across the subcontinental divide to directly supply customers in Mount Pleasant. As such, Racine is the proper party under Wisconsin Statutes s. 281.346(4)(b)2 to apply for approval of this diversion to a straddling community since Mount Pleasant does not have a public water supply utility.

Wisconsin Statutes s. 281.346(4)(c) applies to approval of diversions to straddling communities. This statutory subsection applies to Racine's request for approval of the diversion to the Mississippi River basin area of Mount Pleasant.

Table C-1 below summarizes all of the requirements for a straddling community diversion exception, as well as where in the application Racine meets these requirements.

Table C-1: Straddling Community Diversion Exception Requirements

Requirement	Compact	Wisconsin Statutes and Administrative Code	Location in Application
Solely for public water supply purposes	s. 4.9.1	s. 281.346(4)(c)	Racine is a public water supply and provides water solely for public water supply purposes. See Application, p. 4 and p. 14-16.
Approved water supply service area plan	None	s. 281.346(4)(c)2m	The proposed diversion includes an electronics and information technology manufacturing zone under 2017 Wisconsin Act 58 and is thus exempt from this requirement.
Develop a conservation plan	None	Wis. Admin Code NR 852	Racine created a conservation plan. See Appendix E.
Exception standard	s. 4.9.1.b	s. 281.346(4)(c)3	The exception standard does not apply as the proposed diversion would not result from a new or increased withdrawal averaging 100,000 gallons or more per day.

Table C-1: Straddling Community Diversion Exception Requirements (continued)

Requirement	Compact	Wisconsin Statutes and Administrative Code	Location in Application
Consumptively use less than 5 million gallons per day averaged over any 90-day period	s. 4.9.1.c	s. 281.346(4)(c)4	The proposed diversion consumptive use would be less than 5 million gallons per day averaged over any 90-day period. See Appendix D, p. 20-22.

Table C-2 below summarizes the requirements for return flow, as well as where in the application Racine meets these requirements.

Table C-2: Return Flow Requirements

Requirement	Compact	Wisconsin Statutes and Administrative Code	Location in Application
Return an equal amount of water less an allowance for consumptive use	s. 4.9.1.a	s. 281.346(4)(c)1	This proposal would return an equal amount of water less an allowance for consumptive use. See Application, p. 6.
Return wastewater through a wastewater system that combines water from inside and outside the Great Lakes basin	s. 4.9.1.a.i	s. 281.346(4)(c)2.a	The Mount Pleasant wastewater collection system in the Mississippi River basin would return Great Lakes water to Lake Michigan. Appendix F contains a letter of support from Mount Pleasant.
Treat returned water to applicable permits standards and to prevent invasive species	s. 4.9.1.a.ii	s. 281.346(4)(c)2.b	Racine Wastewater Utility would treat water to all applicable permit standards, and it would treat water to prevent invasive species from entering Lake Michigan. See Application, p. 6.
Maximize the return of Great Lakes water and minimize the return of non-Great Lakes water	s. 4.9.1.a.iii	s. 281.346(4)(c)2.c	This proposal would maximize the return of Great Lakes water and minimize the return of water outside the Great Lakes. See Application, p. 6.

Public Water Supply Purposes

Wisconsin Statutes s. 281.346(4)(c) only allows a diversion to a straddling community that is "solely for public water supply purposes". Wisconsin Statutes s. 281.346(1)(pm) defines public water supply as follows:

> Public water supply means water distributed to the public through a physically connected system of treatment, storage, and distribution facilities that serve a group of largely residential customers and that may also serve industrial, commercial, and other institutional customers.

Racine provides public water supply to customers as Wisconsin Statutes s. 281.346(1)(pm) defines "public water supply". RWU distributes water to the public through a physically connected system of treatment, storage, and distribution facilities. It provides service to a group of largely residential customers and also serves industrial, commercial, and other institutional customers. RWU provides regional retail water service directly to the residents in the City of Racine, the Village of Elmwood Park, the Village of North Bay, the Village of Sturtevant, the Village of Wind Point, the Village of Somers, and portions of the Village of Mount Pleasant. RWU owns the distribution facilities located in those communities where it provides retail water service, and RWU operates its facilities as one system. Map C-1 shows that RWU is one physically connected system.

Map C-1

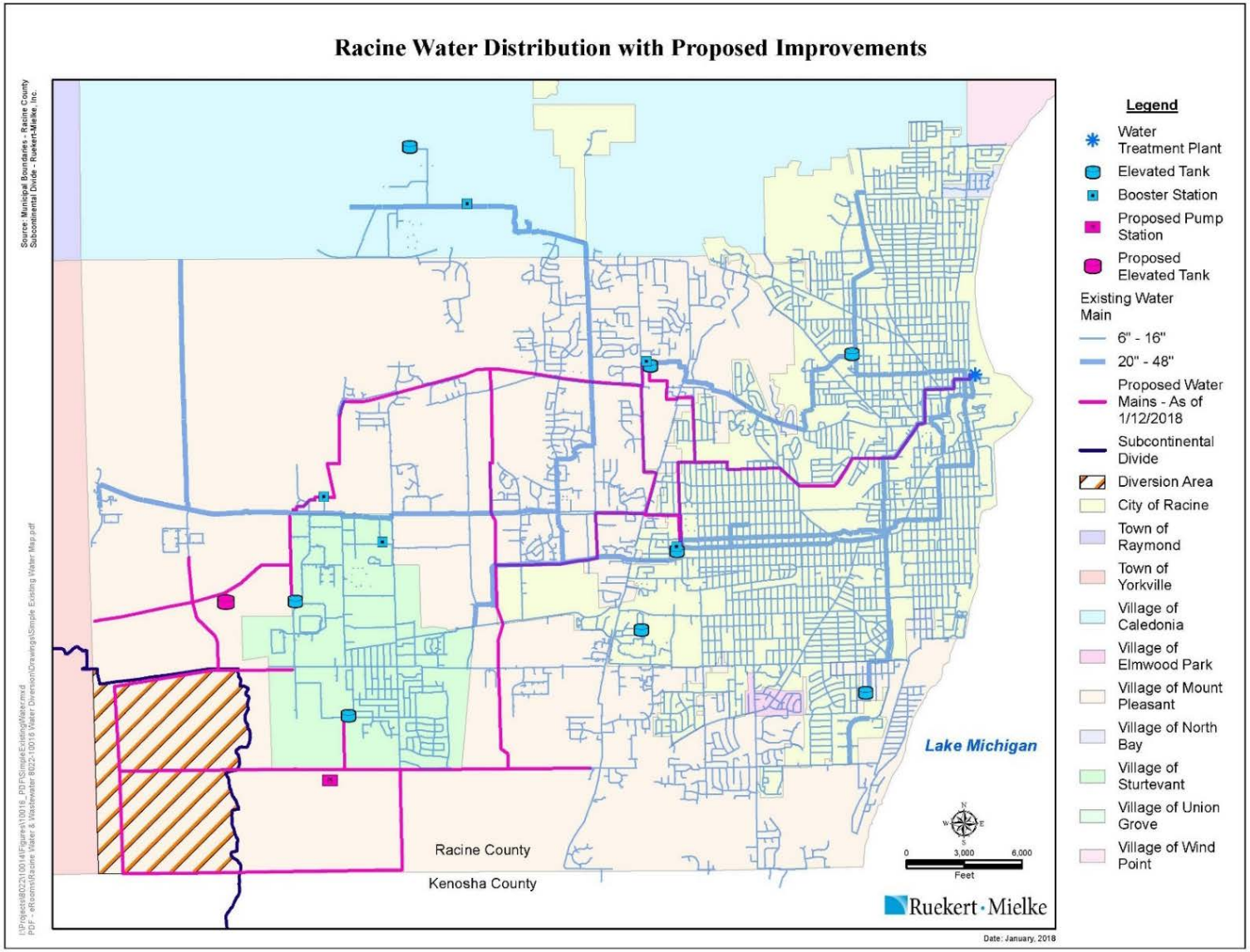
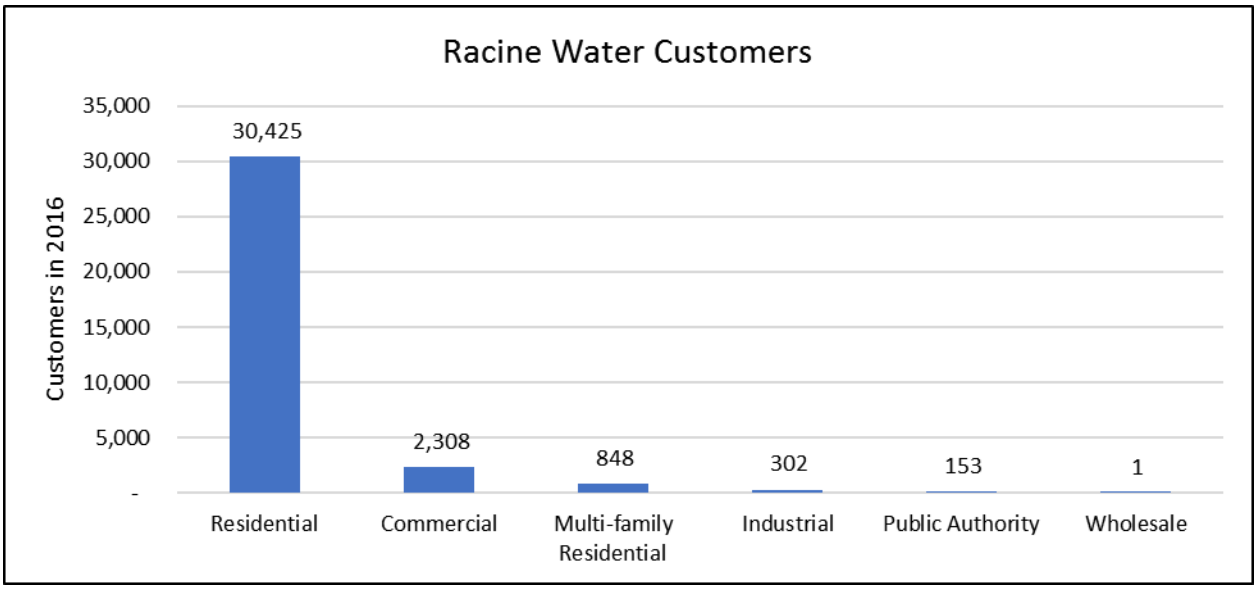

Racine Water Distribution with Proposed Improvements
Source: Municipal Boundaries - Racine County
Subcontinental Divide - Ruekert-Mielke, Inc.
Legend
Water Treatment Plant
Elevated Tank
Booster Station
Proposed Pump Station
Proposed Elevated Tank
Existing Water Main
6" - 16"
20" - 48"
Proposed Water Mains - As of 1/12/2018
Subcontinental Divide
Diversion Area
City of Racine
Town of Raymond
Town of Yorkville
Village of Caledonia
Village of Elmwood Park
Village of Mount Pleasant
Village of North Bay
Village of Sturtevant
Village of Union Grove
Village of Wind Point
Lake Michigan
Racine County
Kenosha County
0
3,000
6,000
Feet
Ruekert · Mielke
Date: January, 2018

Figure C-1 shows, based on data in RWU's 2016 annual report to the PSC[3], that Racine's retail customer base is largely residential.

Figure C-1



Mount Pleasant has requested that Racine extend public water supply service from the Racine water system to the area of Mount Pleasant outside of the Great Lakes basin. This request for public water supply service from Racine's regional water system satisfies the Wisconsin Statutes s. 281.346(4)(c) requirement that the diverted water be provided to the diversion area "solely for public water supply purposes."

[3] Scolaro, Kenneth. March 22, 2017. "Racine Water Works Commission Annual Report". http://apps.psc.wi.gov/PDFfiles/Annual%20Reports/WEGS/WEGS_2016_4900.pdf.

APPENDIX D: VOLUME, CONSUMPTIVE USE, AND RETURN FLOW FORECASTS

Racine has forecasted the volume of water that would be diverted, returned, and consumptively used under this proposal.

Diversion Volume

Table D-1 shows the water-demand forecast for the diversion area at full build-out in 2050.

Table D-1

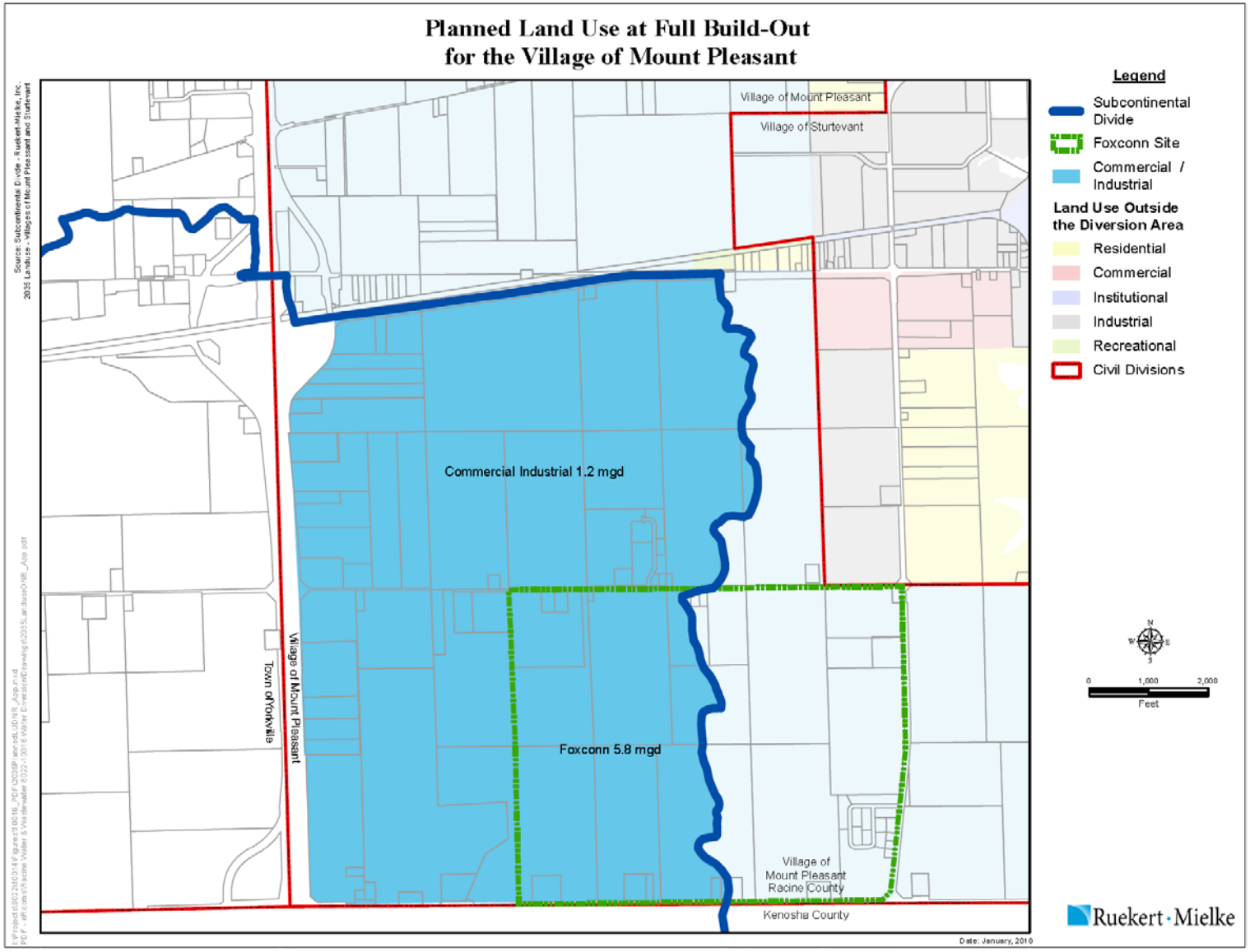
2050 Forecast Diversion Volume by Land Use

Land Use	Forecast Basis	Water Use Coefficient	Average Day Volume (mgd)
Industrial - Foxconn	Design Volume	Design Volume	5.8
Commercial and Industrial	1,077 acres	1,100 gallons per acre per day	1.2
		Total	7.0

Racine forecasted the water-supply needs using a unit demand per acre for the industrial and commercial classes. Racine forecasted Foxconn's volume based on information provided by the company. See page 23 for information on Foxconn's planned water use.

Map D-1 shows future service area and forecasted land use for Racine's proposed diversion.

Map D-1: Planned Land Use in the Diversion Area



The proposed diversion area consists of 1,460 acres. The Foxconn facility would occupy 382 acres in the Mississippi River basin and 391 acres in the Great Lakes basin.

Industrial-Foxconn

The Foxconn facility would require an average-day demand of 5.8 mgd. It would use 2.8 mgd for its manufacturing process, 2.4 mgd for cooling, and the balance for domestic purposes. Racine based its forecast on information provided by Foxconn.

Commercial and Industrial Water Use

Racine has forecasted the commercial and industrial demand based on a unit demand of 1,100 gallons per day per acre. Table D-2 shows the information Racine analyzed and evaluated to develop its commercial and industrial unit demand of 1,100 gallons per day per acre.

Table D-2

Basis of Estimate	Average Day Volume in Gallons per Acre per Day
2010 Racine Service Area Industrial Use[4]	4,100
2016 Racine Service Area Industrial Use[5]	3,740
SEWRPC "State of the Art Water Supply Practices"[6]	1,500
Sturtevant Renaissance Business Park[7]	550
Commercial and Industrial Volume Used in the Diversion Forecast	1,100

Based on Racine's annual reports to the PSC and SEWRPC 2010 land use, average-day industrial use in the existing Racine service area ranged from 4,100 gallons per day per acre in 2010 to 3,740 gallons per day per acre in 2016. SEWRPC's *State-of-the-Art of Water Supply Practices* estimates 1,500 gallons per day per acre for industrial average-day usage. Racine analyzed water use at the Village of Sturtevant's newer Renaissance Business Park, which is a mix of commercial and light

[4] Anderson, Debbie. Ruekert & Mielke, Inc. October 18, 2017. "Analysis of Southeastern Wisconsin Regional Planning Commission GIS Data on 2010 Land Use".

[5] Ibid.

[6] Southeastern Wisconsin Regional Planning Commission. December 2003. *State-of-the-Art of Water Supply Practices*. http://www.sewrpc.org/SEWRPCFiles/Publications/TechRep/tr-043_water_supply_practices.pdf.

[7] Butler, Dan. Ruekert & Mielke, Inc. December 8, 2017. "Calculation of Sturtevant Renaissance Business Park Water Use".

industrial customers. On an average day in 2016, the business park used 550 gallons per day per acre.

Racine combined industrial and commercial land use due to uncertainty over which one would be prevalent. Racine estimated 1,100 gallons per day per acre for purposes of its forecast because the current and past volumes for Racine's commercial and industrial use reflect the inclusion of high-water demand industries, which may not be the case for this development. However, the demand may not be as low as the Sturtevant Renaissance Business Park, so Racine chose an intermediate estimate for its forecast to reflect the uncertainty in the type and density of future commercial and industrial development.

Peak Diversion Volume

Table D-3 shows the peak diversion volumes for three different averaging periods occurring at full build-out. Racine has forecasted these volumes based on customer meter data from its billing system and information provided by Foxconn.

Table D-3

Diversion Volume in mgd	
Peak Calendar Year	7.0
Peak 90-day Period	7.4
Peak 30-day Period	7.8

Consumptive Use

Table D-4 shows Racine's consumptive-use and return-flow forecasts for full build-out in 2050. The figures in the Consumptive Use column do not sum due to rounding. On an average day at full build-out, Racine anticipates 2.7 mgd of consumptive use due to this diversion.

Table D-4

2050 Forecast Consumptive Use and Return Flow by Land Use

Land Use	Average Day Volume (mgd)	Consumptive Use Volume (mgd)	Return Flow Volume (mgd)
Industrial - Foxconn	5.8	2.5	3.3
Commercial and Industrial	1.2	0.1	1.0
Total	7.0	2.7	4.3

For consumptive-use forecasting beyond Foxconn's cooling towers, Racine based its forecast of consumptive use on the table factors from USGS, SIR2007-5197[8]. Racine applied a twelve-percent consumptive use factor to all users as referenced under USGS, Table 2-5 and Table 3-2.

For the Foxconn facility, Racine has forecasted consumptive use based on design plans provided by Foxconn and the consumptive use factor explained above. As Table D-5 shows, Foxconn would need 5.8 mgd for its operations on an average day. Since metering for all water for Foxconn would occur west of the subcontinental divide, all of Foxconn's water is treated as diverted. Values in Table D-5 do not sum due to rounding.

Table D-5

Purpose	Diversion Volume (mgd)	Consumptive Use (mgd)	Returned to Great Lakes Basin (mgd)
Manufacturing Process	3.0	0.4	2.6
Cooling	2.4	2.1	0.3
Domestic	0.5	0.1	0.4
Total	5.8	2.5	3.3

Over half of Foxconn's forecasted water demand would be for manufacturing-process water. Foxconn informed Racine that it intends to repeatedly recycle its process water. Recycling this water would significantly reduce the demand for this facility, lowering the volume of water needed from 20.6 mgd on an average day to the current estimate of 5.8 mgd. Racine applied a twelve-percent consumptive-use factor to the manufacturing-process and domestic volumes to forecast consumptive use. Page 23 shows information on Foxconn's planned water use. Racine's forecast of consumptive use exceeds the forecast on page 23 because it assumes consumptive use from the manufacturing process and domestic water use.

Foxconn would use 2.4 mgd of the diverted water for cooling. Foxconn would use a heat-exchange process to cool a separate, closed water-cooling loop. The heat-exchange process would evaporate 2.1 mgd. Racine includes the 2.1 mgd of water evaporated in consumptive use. Foxconn would return the remaining 0.3 mgd to the Great Lakes basin via the Racine Wastewater Utility as blowdown water.

In total, Racine forecasts that Foxconn would consumptively use 2.5 mgd on an average day at full build-out.

[8] Schaffer, Kimberly, and Runkle, Donna. 2007. "Consumptive Water-Use Coefficients for the Great Lakes Basin and Climatically Similar Areas" U.S. Geological Survey Scientific Investigations Report 2007–5197. https://pubs.usgs.gov/sir/2007/5197/pdf/SIR2007-5197_body_pt1.pdf.

If Foxconn builds a zero liquid discharge system, then it could recycle more water and hence need, use, and return less water.

Peak Consumptive Use

Racine estimated peak consumptive use of the diverted water for three different averaging periods occurring at full build-out as shown in Table D-6 below. Racine has forecasted these volumes based on customer meter data from its billing system and information provided by Foxconn.

Table D-6

Consumptive Use in mgd	
Peak Calendar Year	2.7
Peak 90-day Period	2.8
Peak 30-day Period	3.3

The consumptive use is below five mgd in all three averaging periods. The forecast for the peak 90-day period is less than the five-mgd consumptive-use threshold for regional review in Wisconsin Statutes s. 281.364(4)(c)4.

Return Flow

On an average day at full build-out, Racine has forecasted that the diversion area would return 4.3 mgd to Racine's wastewater facility. For this application, Racine calculated return flow as the average-day water demand less the average-day consumptive use.

Foxconn and other users within the diversion area would discharge domestic-strength wastewater through new local sanitary sewer collector mains and pressurized wastewater force mains to the City of Racine's wastewater treatment facility. The wastewater treatment facility would treat this wastewater to comply with all local, state, and federal water-quality standards before discharging it into Lake Michigan.

Sheehan, John. Michael Best. “Re: Foxconn’s Mount Pleasant Water Use Plans.” Message to Ruekert & Mielke, Inc. January 25, 2018. Email.

Foxconn Forecast Water Use January 25, 2018

Anticipated water usage estimates for diversion application

Purpose	**Volume (mgd)**
Manufacturing Process	3.0
Cooling	2.4
Domestic	0.5
Total	5.8
Consumptive use	2.1
Return to Great Lakes	3.7

For the manufacturing process and the cooling towers, the average water demand, consumptive use, and return flow over a peak 30-day period and a peak 90-day period are the same as the volumes for an average day for a calendar year.

Foxconn intends to repeatedly recycle its process water. Recycling this water would significantly reduce the demand for this facility, lowering the volume of water needed from 20.6 mgd on an average day to 5.8 mgd.

Foxconn would use a heat-exchange process to cool a separate, closed water-cooling loop. The heat-exchange process would evaporate approximately 2.1 mgd and return the remaining 0.3 mgd to the Great Lakes basin via the Racine Wastewater Utility as blowdown water.

If a zero liquid discharge system is used to process wastewater, the diversion volume will be substantially lower than the above estimates.

APPENDIX E: CONSERVATION PLAN

Executive Summary

The Racine Water Utility plans to improve water efficiency by achieving the following goals:

1. Educate customers on the benefits of conservation
2. Partner with municipalities to re-evaluate landscaping requirements
3. Appoint a Water Conservation Coordinator to lead and monitor water conservation efforts and identify new opportunities for cost-effective water conservation measures
4. Continue to reduce leaks from water infrastructure.

Using the Alliance for Water Efficiency Water Conservation Tracking Tool, the Racine Water Utility forecasts that conservation would save over 100,000 gallons on an average day in 2019, increasing to over 600,000 gallons per average day in 2050. The Racine Water Utility would conserve this volume through the efforts described in this plan, together with customers' natural replacement of plumbing fixtures and appliances. The Racine Water Utility used the Water Conservation Tracking Tool to evaluate other possible conservation and efficiency measures.

The Racine Water Utility has already implemented several conservation measures:

1. Metering all water customers
2. Charging customers based on metered volumes of water use
3. Billing quarterly for its residential and commercial customers
4. Billing monthly for its industrial customers
5. Mailing alerts to customers with unexplained high water use
6. Surveying more than a thousand homes annually for water leaks
7. Detecting and repairing distribution system leaks
8. Tracking and annually auditing water system losses and non-revenue water.

The Racine Water Utility will undertake new measures that are cost-effective according to the Alliance for Water Efficiency Water Conservation Tracking Tool. It will educate customers on the benefits of water efficiency and conservation and partner with neighboring municipalities to re-evaluate landscaping requirements. Racine has appointed a Water Conservation Coordinator to lead and monitor all of its water conservation efforts.

Purpose

This appendix is a conservation plan prepared in accordance with Wisconsin Administrative Code NR 852.04(1) and 852.07. The plan supports the City of Racine (Racine)'s application to divert Lake Michigan water to extend service to the Mississippi River basin area of Mount Pleasant.

Water Use

The Racine Water Utility (RWU) measures water use by customer class. Figure E-1 shows the volume of water used by RWU's customers in 2016. RWU does not report irrigation as a class customer because the volume for such use is small.

Figure E-1

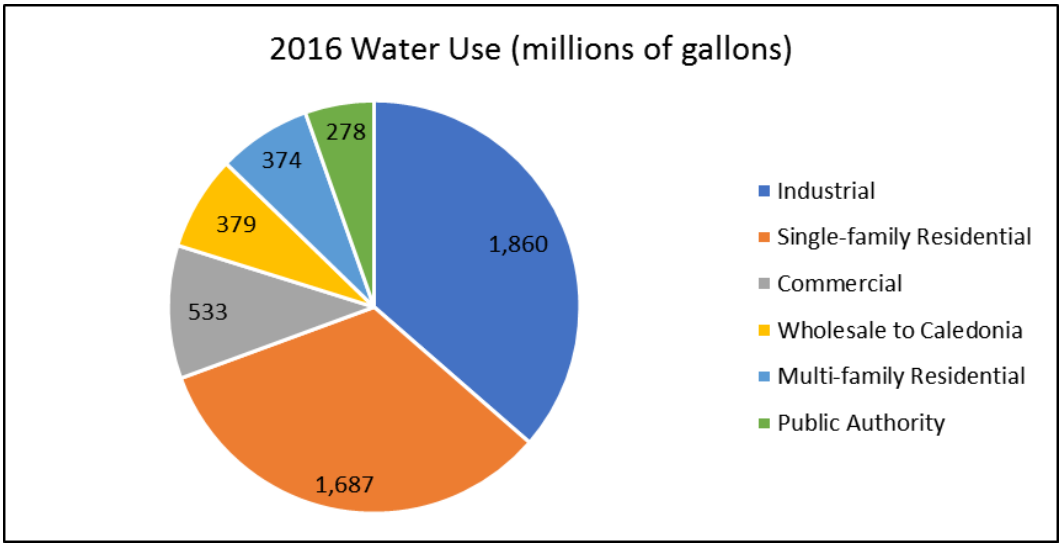
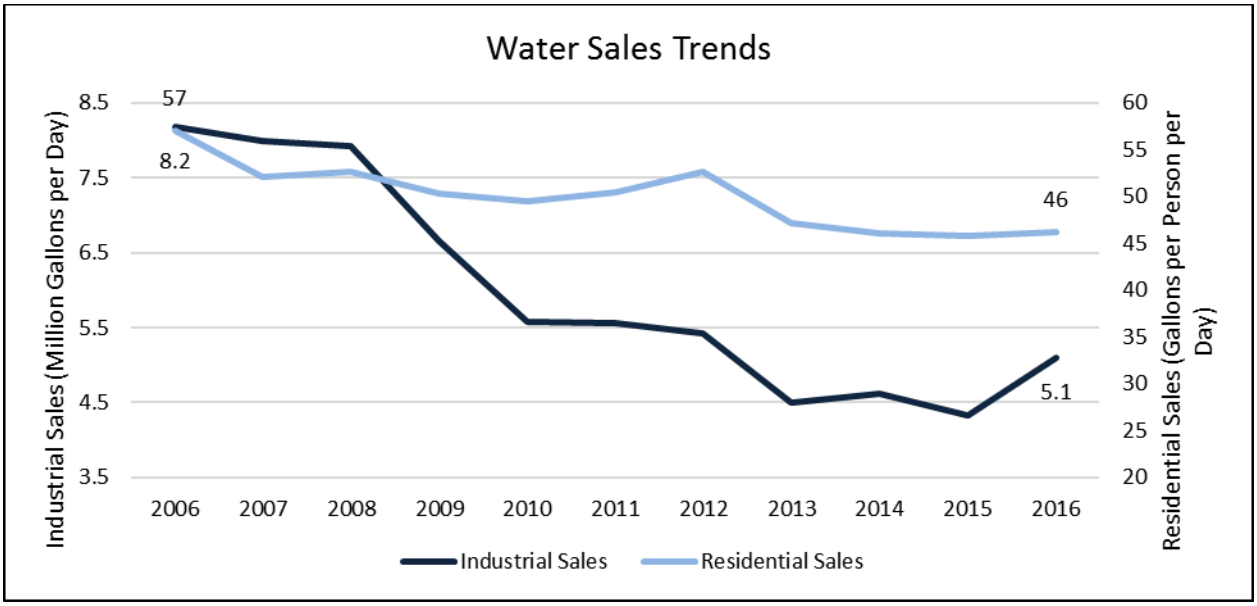


Figure E-2 shows that RWU has seen declining industrial and residential water use. RWU's industrial sales fell by three million gallons per day from 2006 through 2016. Residential sales fell from 57 gallons per person per day to 46.

Figure E-2



The Environmental Protection Agency estimates that a typical family of four in the US uses four hundred gallons per day, or one hundred gallons per day per person, more than double RWU's per-capita consumption. Many conservation and efficiency measures were designed to help water users with much greater water consumption than RWU's residential customers. RWU's low water use per capita may limit conservation and efficiency opportunities, but several viable opportunities still exist.

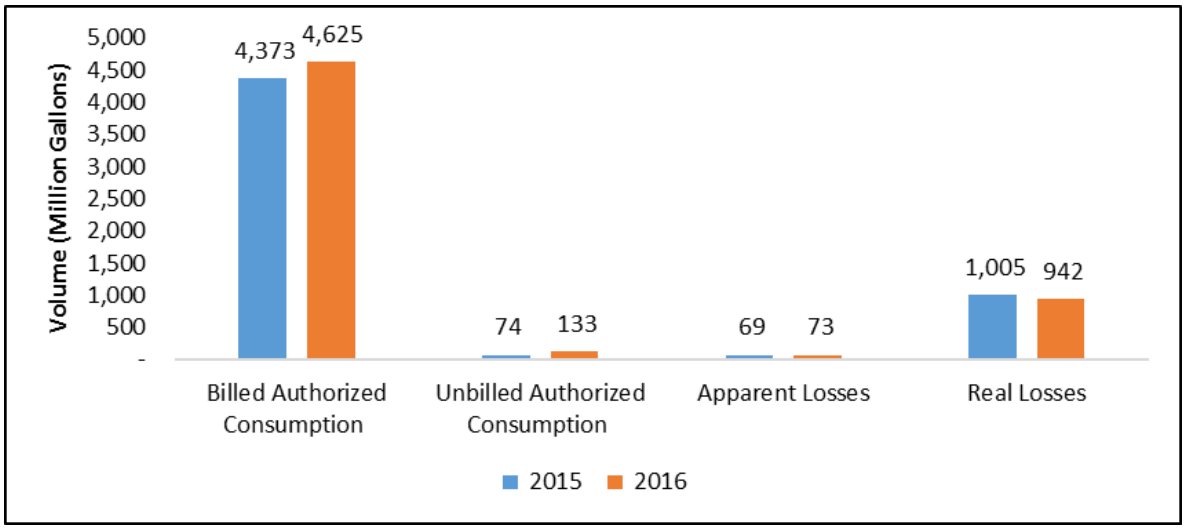
The ratio of peak demand to average daily demand for the whole system was 2.0 in 2016. This ratio fluctuated little over the past ten years, averaging 2.1.

RWU conducts an annual water-use audit through the PSC annual report in accordance with Wisconsin Administrative Code PSC 185. In the audit, billed authorized consumption refers to sales to customers while unbilled authorized consumption refers to uses such as main flushing. Apparent losses refers to data-handling errors and unauthorized consumption such as theft. Real losses refer to water lost to leaks and overflows.

RWU also audited system water use in 2015 and 2016 with the American Water Works Association water audit software. RWU used the audit to understand more clearly the system's condition, the volume of water supplied, the volume of water used for various purposes, and the volume of water lost.

Figure E-3 breaks down the results of the 2015 and 2016 water audits.

Figure E-3: Water Audit Results



Based on the water audit and guidance from the American Water Works Association, RWU has developed and is evaluating steps to improve the reliability of data in its water audit. Improved data will support improved decisions regarding steps to reduce non-revenue water.

Water Conservation and Efficiency Goals

RWU plans to improve water efficiency by achieving the following goals:

1. Educate customers on the benefits of conservation
2. Partner with municipalities to re-evaluate landscaping requirements
3. Appoint a Water Conservation Coordinator to lead and monitor water conservation efforts and identify new opportunities for cost-effective water conservation measures
4. Continue to reduce leaks from water infrastructure.

RWU will educate its customers in all customer classes on the benefits of water efficiency and conservation. RWU will use its website to share up-to-date residential water conservation and efficiency measures. RWU will consult with large industrial customers on ways to improve water-use efficiency.

RWU will evaluate landscape irrigation requirements in land use and zoning ordinances for the City of Racine and neighboring municipalities in which it provides service. RWU will recommend changes to ordinances to reduce water use for landscape irrigation among commercial and industrial customers.

RWU has appointed a Water Conservation Coordinator to lead and monitor all of its water conservation efforts. The Water Conservation Coordinator has responsibility for the ongoing identification and evaluation of new opportunities for cost-effective conservation and efficiency.

RWU will reduce distribution and customer leaks. RWU will achieve this goal by continuing its ongoing replacements of water mains and laterals throughout its distribution system. It will also alert residential water customers to high bills that may be caused by leaks and perform residential leak surveys on customer request. RWU has developed a water loss control plan to aid in these efforts to reduce leaks.

RWU expects to save 20,000 gallons per day by 2020 with these initiatives.

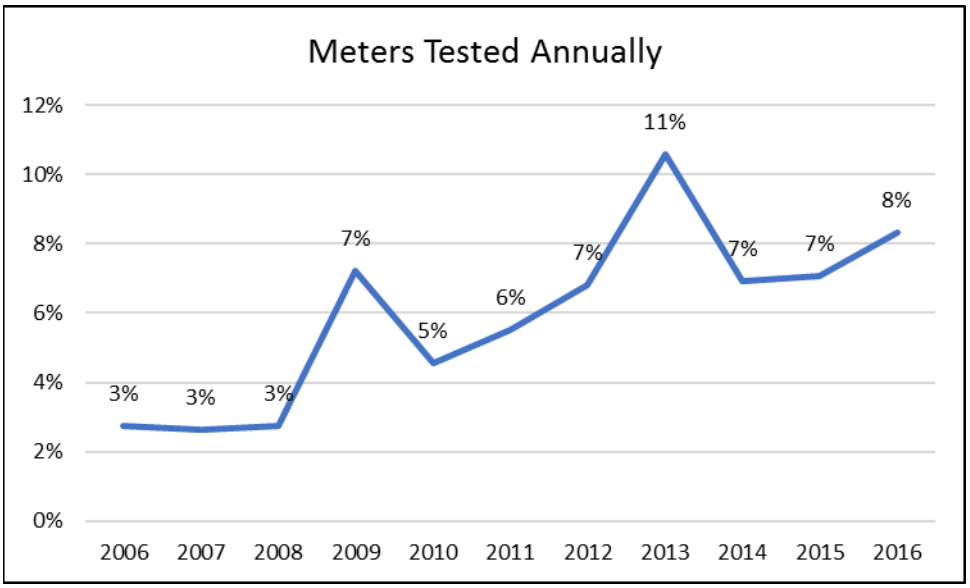
Required Conservation and Efficiency Measures

Wisconsin DNR and PSC regulations require water utility practices that promote efficient operation and customer awareness of the benefits of conservation.

Measurement of Customer Water Use

RWU has metered residential customer water use since the City of Racine purchased the utility in 1917. RWU has a meter program and removes and replaces small-diameter water meters before the end of their 20-year service lives. RWU tests the removed meters to confirm their accuracy. Figure E-4 shows the number of meters tested relative to the total number of in-service meters.

Figure E-4



Almost all of the water meters tested register between 98 and 100 percent of the water flowing through them. This accuracy range meets the requirements of the PSC.

Water Use Audit

RWU audits water use with the following established practices:

- Measures and records all water withdrawn from Lake Michigan
- Measures and records all water used in the water treatment processes
- Measures and records all water pumped at distribution system booster stations
- Meters and records all water sales to customers
- Measures or estimates and then records water used each month for flushing, firefighting, and main breaks
- Calculates the volume of non-revenue and lost water each month and reports it to the PSC annually
- Alerts customers to significant increases and decreases in water use based on billing system exception reports. Performs customer visits and leak surveys at customer request
- Evaluates opportunities for water reuse in the operation of its water supply, treatment, and distribution facilities.

In addition, as indicated above, RWU conducts an annual water-use audit through the PSC annual report in accordance with Wisconsin Administrative Code PSC 185. RWU also audited system water use in 2015 and 2016 with the American Water Works Association water audit software. RWU used the audit to understand the system's condition, the volume of water supplied, the volume of water used for various purposes, and the volume of water lost.

Based on the water audit and guidance from the American Water Works Association, RWU developed and is evaluating steps to improve the reliability of data in its water audit. Improved data will support improved decisions regarding steps to reduce non-revenue water.

Leak Detection and Repair Program

Based on the American Water Works Association water use audit, RWU identified and evaluated ways to reduce non-revenue water. RWU developed and submitted to the PSC a water loss control plan. The water loss control plan is consistent with this conservation plan. As described in the loss control plan, RWU will continue to perform regular leak detection.

To achieve its fourth conservation and efficiency goal of reducing leaks from water infrastructure, RWU will continue to replace old, outdated mains and service laterals in coordination with scheduled road repairs. These efforts will reduce leaks.

Information and Education Outreach

RWU will provide information about water conservation and water-use efficiency to its customers through outreach program materials on its website. RWU's membership in the Alliance for Water Efficiency will allow RWU to make information available to water customers through this channel. RWU will make improvements to its website to offer customers up-to-date information on best practices.

RWU trains its employees on water conservation so that they may serve as ambassadors of conservation and efficient use of water. RWU provides employees, particularly those who interface directly with customers, with resources like standard forms and information to help them educate customers. See Water Conservation Tips for Residents handout on page 35 for an example.

RWU provides information to customers through its water utility bills. By charging customers for the volume of water they use and communicating that information to customers, RWU encourages customers to consider how they can reduce their bill by using less.

Source Management

RWU measures daily water withdrawals from Lake Michigan and reports source meter readings in accordance with Wisconsin Administrative Code PSC 185 and DNR requirements. RWU meters all of its general service customers and complies with meter flow testing and accuracy requirements in Wisconsin Administrative Code PSC 185.

Distribution System Pressure Management

RWU analyzed distribution system pressure management in its 2017 water-system study, prepared by Ruekert and Mielke, Inc. According to the study, RWU designed water pressure zones to deliver adequate water supply and pressure over varied service-area topography. It operates the distribution system to meet pressure requirements in Wisconsin Administrative Code NR 811.70(4). The requirements include maintaining a minimum twenty pounds per square inch of pressure under all conditions and maintaining pressures from 35 to 100 pounds per square inch under normal static conditions. This study concluded that pressure does not appear to be a major contributor to main breaks or leaks.

Residential Demand Management Program

RWU currently assists residential customers with demand management. Each month, RWU billing staff creates a report of high- and low-volume bills. RWU mails high-consumption notices to residential, commercial, and industrial customers when their water use increases by more than fifty percent from the previous quarter and same quarter of the previous year.

RWU conducted door-to-door residential surveys in recent years in its efforts to address the problems with lead pipes. Replacing lead pipes has the additional benefit of reducing leaks. The residential surveys include water-conservation consultations. This has resulted in over 1,000 residential visits per year.

Upon customer request, RWU will survey a customer's plumbing and water fixtures to identify leaks. On its website, RWU will add information so that customers can conduct home water-use audits.

Commercial and Industrial Demand Management Program

RWU actively provides water-conservation information to the industries and businesses it serves. RWU trains water utility employees to consult with industries and businesses on best practices and help these customers conserve water. Such practices include recycling water within manufacturing facilities; minimizing blowdown from boiler and steam systems; encouraging use of green infrastructure; employing efficient irrigation techniques such as using captured condensate; and replacing single-pass, water-cooled equipment with air-cooled equipment.

As new customers enter RWU's service area, RWU will be available to consult with them on efficient water use for their operations. RWU will rely on best practices from EPA WaterSense, such as EPA's 2012 Report WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities, and best practices from the American Water Works Association.

Water Reuse

RWU has evaluated water reuse; however, no opportunities for water reuse exist due to the cost of reuse relative to the cost of pumping water from Lake Michigan. Should feasible opportunities become available, RWU will investigate them. When feasible, RWU will work with individual large-volume commercial and industrial water users to explore opportunities for water reuse within their facilities.

Additional Conservation and Efficiency Measures

Using the Alliance for Water Efficiency's Water Conservation Tracking Tool, RWU analyzed a number of potential conservation measures. RWU determined that it can cost-effectively conserve water by educating customers on the benefits of conservation and partnering with municipalities to re-evaluate landscaping requirements in their ordinances.

Table E-1 shows the results of RWU's cost-effectiveness analysis. Present-value savings quantify how much money RWU will save over the life of the activity. RWU assumes that these activities have little or no cost.

Table E-1

Activity Name	Present-value Savings	Average Daily Water Savings (gallons)
Education	$ 25,606	11,879
Ordinance Revisions	$ 15,360	8,081

RWU evaluated additional conservation and efficiency measures not shown in Table E-1. The Alliance for Water Efficiency's Water Conservation Tracking Tool calculated a negative net present value for these other measures, indicating that they are not economically feasible. These options include the following:

- Showerhead replacements
- Toilet replacements
- More frequent billing of customers
- Rebate programs for more efficient appliances and plumbing fixtures.

RWU will continue to evaluate the cost-effectiveness of these and other measures in the future as the cost of pumping, treating, and storing water changes. With respect to the conservation measures determined to be cost-effective, RWU will continue the efforts it has taken to date and will increase its efforts where it is cost-effective.

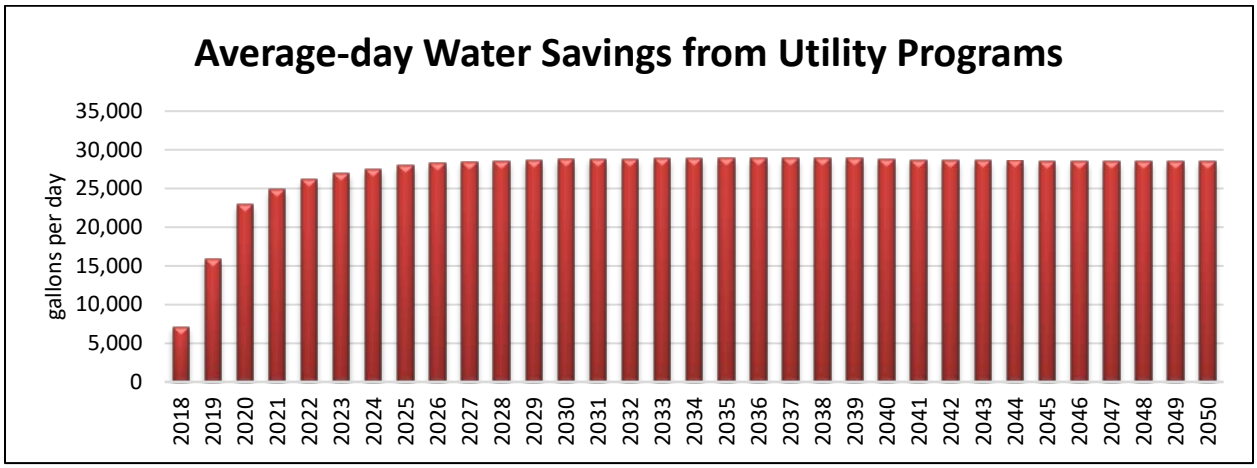
RWU will educate its customers on the benefits of water conservation. Using its website, RWU will share conservation resources from the Alliance for Water Efficiency, as well as resources from the Environmental Protection Agency's WaterSense program. These resources will provide a way to educate the public on why conservation is important and what they can do to help conserve water and save money. RWU will include its website address in the mailings it sends to customers, particularly those customers showing a significant increase in consumption. As new best practices emerge, RWU will update its website so that these conservation and efficiency strategies will be available to its customers.

To move toward more efficient water use, RWU will review the ordinances of the communities in which it provides water service to evaluate their landscaping requirements. The communities include the City of Racine, the Village of Sturtevant, the Village of Caledonia, and the Village of Mount Pleasant. Based on its review, RWU may recommend changes to these ordinances to reduce watering of lawns, particularly for commercial and industrial customers.

To coordinate the water-conservation initiatives and to look for new opportunities to conserve water, RWU has appointed one of its employees as the Conservation Program Coordinator. This employee will monitor and in some cases execute the new conservation and efficiency measures. The Conservation Coordinator will also periodically consult with the largest-volume customers about opportunities to efficiently use water.

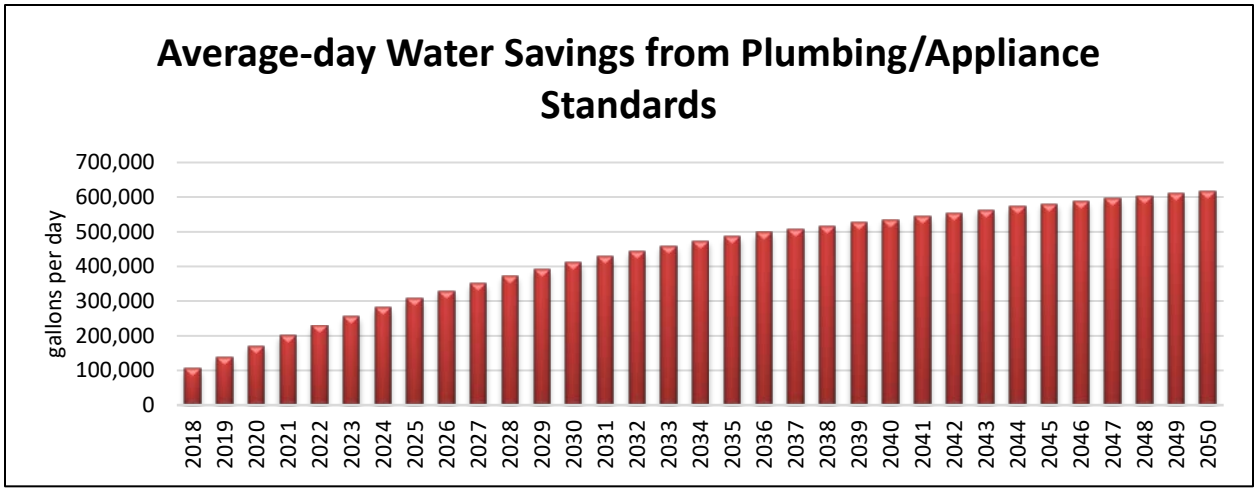
Figure E-5 shows RWU's forecast that customer education and ordinance revisions will save over 25,000 gallons per day each year by 2022. RWU developed this forecast using the Alliance for Water Efficiency Water Conservation Tracking Tool.

Figure E-5



As water customers naturally replace plumbing fixtures and appliances, RWU expects to conserve over 600,000 gallons on an average day by 2050 as shown in Figure E-6.

Figure E-6



RWU forecasts that by 2050 it will sell 34.3 mgd to its customers on an average day. RWU forecasts that its conservation activities and natural plumbing and appliance replacements will conserve 646,000 gallons per day, or two percent of the water sold to customers.

Implementation Timeline

RWU has already appointed a Conservation Program Coordinator. RWU will begin to offer the resources described above on its website in 2018. RWU will continue to improve its site to provide the best available information and tools to its customers; these improvements will be ongoing. By the end of 2019, RWU will make recommendations to the communities in which it provides service to promote increased water efficiency in the landscape requirements in their ordinances. RWU's efforts to replace old mains and service laterals will be ongoing. The Conservation Program Coordinator will evaluate other measures on an ongoing basis. If and when they become cost-effective, the Coordinator will implement them in a timely manner.

Monitoring and Assessment Plan

The Conservation Program Coordinator will be responsible for monitoring and assessing the initiatives discussed within the plan. The Coordinator will present annual reports to the Water Utility Commission on the program's effectiveness. The Coordinator will also propose new conservation and efficiency measures if they are environmentally sound and economically feasible.

Summary

Table E-2 shows the conservation and efficiency measures required by Wisconsin Administrative Code NR 852 and how RWU addressed each of them.

Table E-2: Required Conservation and Efficiency Measures in NR 852

Abbreviation	Requirement	Location
PWS-1	Water-use audit	RWU annually audits and submits to the PSC its water production, sales, and non-revenue water with its annual report as required by Wisconsin Administrative Code PSC 185.85(3). In 2015 and 2016, RWU used the American Water Works Association water audit software to conduct audits as well. See p. 28-29.
PWS-2	Leak detection and repair program	RWU prepared a water loss control plan under Wisconsin Administrative Code PSC 185.85(4) and submitted it to the PSC prior to submitting this application.
PWS-3	Information and education outreach	RWU includes the information required by Wisconsin Administrative Code PSC 185.33(1) and (1m), e.g. rates and volume unit conversions, on the back side of customer water bills. RWU will post online the conservation and efficiency information required by Wisconsin Administrative Code PSC 185.96. See page 30.

Figure E-2 Continued: Required Conservation and Efficiency Measures in NR 852

Abbreviation	Requirement	Location
PWS-4	Source measurement	RWU meters water produced and pumped into the distribution system and verifies the accuracy of its station meters in accordance with Wisconsin Administrative Code PSC 185.83 and 185.85(2). RWU documents its compliance with these requirements on pages W-14 and W-26 of its annual report to the PSC.
PWS-R1	Distribution system pressure management	RWU analyzed distribution system pressure management in its 2017 water-system study. See p. 29.
PWS-R2	Residential demand management program	RWU will post residential water conservation information on its website and will continue to notify customers of high water use survey residences for leaks on customer request. See p. 30.
PWS-R3	Commercial and industrial demand management program	RWU will work with the communities in which it provides service to review their requirements for commercial and industrial landscaping and watering. RWU's Conservation Coordinator should periodically talk with the largest volume water users about opportunities to use water efficiently. See p. 30.
PWS-R4	Water reuse	RWU has not found opportunities for water reuse. See p. 30. RWU will work with individual large-volume commercial and industrial water users to explore opportunities for water reuse within their facilities.

Water Conservation Tips for Residents

For Every Room in the House with Plumbing

- Repair leaky faucets, indoors and out.
- Consider replacing old equipment (e.g. toilets, dishwashers, and laundry machines).

In the Kitchen

- When cooking, peel and clean vegetables in a large bowl of water instead of under running water.
- Fill your sink or basin when washing and rinsing dishes.
- Only run the dishwasher when it's full.
- When buying a dishwasher, select one with a "light-wash" option.
- Only use the garbage disposal when necessary (composting is a great alternative).
- Install faucet aerators.

In the Bathroom

- Take short showers instead of baths.
- Turn off the water to brush teeth, shave and soap up in the shower. Fill the sink to shave.
- Repair leaky toilets. Add twelve drops of food coloring into the tank, and if color appears in the bowl one hour later, your toilet is leaking.
- Install a toilet dam, faucet aerators, and low-flow showerheads.

Laundry

- Run full loads of laundry.
- When purchasing a new washing machine, buy a water saving model that can be adjusted to the load size.

Outdoors

- Maximize the use of natural vegetation and establish smaller lawns. For portions of your lot where a lawn and landscaping are desired, ask your local nursery for tips about plants and grasses with low-water demand (such as creeping fescue). Consider planting more trees, shrubs, ground covers, and less grass. Shrubs and ground covers provide

greenery for much of the year and usually demand less water. Use native plants in flower beds. Native plants have adapted to rainfall conditions here and often provide good wildlife habitat. Cluster plants that require extra care together to minimize time and save water.

- When mowing your lawn, set the mower blades to 2-3 inches high. Longer grass shades the soil, improving moisture retention, and has more leaf surface to take in sunlight, allowing it to grow thicker and develop a deeper root system. This helps grass survive drought, tolerate insect damage, and fend off disease.
- Only water the lawn when necessary. If you water your lawn and garden, only do it once a week, if rainfall isn't sufficient. Avoid watering on windy and hot days. Water the lawn and garden in the morning or late in the evening to maximize the amount of water which reaches the plant roots; otherwise, most of the water will evaporate. Use soaker hoses to water gardens and flower beds. If sprinklers are used, take care to be sure they don't water walkways and buildings. When you water, put down no more than one inch (set out empty cans to determine how long it takes to water one inch) each week. This watering pattern will encourage healthier, deep roots. Over-watering is wasteful, encourages fungal growth and disease, and results in the growth of shallow, compacted root systems that are more susceptible to drought and foot traffic. If an automatic lawn irrigation system is used, be sure it has been properly installed, is programmed to deliver the appropriate amount and rate of water, and has rain shut-off capability.
- Apply mulch around shrubs and flower beds to reduce evaporation, promote plant growth, and control weeds.
- Add compost or an organic matter to soil as necessary, to improve soil conditions and water retention.
- Collect rainfall for irrigation in a screened container (to prevent mosquito larvae growth).
- When washing a car, wet it quickly, then use a bucket of water to wash the car. Turn on the hose to final rinse (or let mother nature wash your car when it rains).
- Always use a broom to clean walkways, driveways, decks, and porches, rather than hosing off these areas.

Source: EPA.gov

For more information, visit https://www.epa.gov/greeningepa/water-conservation-epa.

APPENDIX F: LETTERS OF SUPPORT

VILLAGE OF MOUNT PLEASANT WISCONSIN

8811 Campus Drive
Mount Pleasant, WI
53406

T: 262.664.7800
F: 262.664.7801
info@mtpleasantwi.gov
www.mtpleasantwi.gov

Police Non-Emergency
T: 262.884.0454

South Shore Fire Dept.
Non-Emergency
T: 262.554.8812

October 27, 2017

Mr. Keith Haas
General Manager
Racine Water Utility
800 Center Street, Room 227
Racine, WI 53403

Re: Village of Mount Pleasant Letter of Support of the Mount Pleasant Diversion Application

Dear Mr. Haas,

I am writing, at your request, in regard to your application for a Great Lakes water diversion as required by §281.346(4)(b)4P which states: "4p. If the person who applies under Subd. 1. will not directly return the water to the Great Lakes basin, the person shall identify any entities that may return the water and provide evidence of support for each of those entities in the form of a letter or resolution".

The Village of Mount Pleasant currently discharges wastewater to the Racine Wastewater Utility through an agreement referred to as the April 25, 2002 Racine Area Intergovernmental Sanitary Sewer Service, Revenue Sharing, Cooperation and Settlement Agreement. When and if the requested diversion from the Des Plaines watershed is approved, the Village intends to send the associated flow to Racine Wastewater. We understand that if Mount Pleasant requires wastewater service to the area outside the current service area boundary, Mount Pleasant would make a request to amend the service area boundary through SEWRPC and the WDNR. We also understand that changes to the Racine sewer service area are subject to recommendation by SEWRPC and the WDNR and are subject to approval by the Racine Wastewater Commission. If the current Mount Pleasant sanitary sewer service area boundary were to be amended in the future, under ultimate build-out conditions, the sewer service area boundary would coincide with the Racine Wastewater Utility planning area boundary anticipated for Mount Pleasant.

We understand that the Racine Wastewater Commission and Utility are willing to accept the return flow of the diverted water from the future amended sewer service area in Mount Pleasant for the long term in accordance with their DNR approved 2020 Facilities Plan. Acceptance of flows from areas within the planning boundary is planned, but is subject to provisions in the April 25, 2002 Racine Area Intergovernmental Sanitary Sewer Service, Revenue Sharing, Cooperation and Settlement Agreement. Acceptance of the flow is also subject to the Villages allotment of flows and other various parameters in the sewer service agreement.

If you have any questions related to this Letter of Support, please contact me.

Sincerely,
The Village of Mount Pleasant

Tim Zarzecki
Interim Village Administrator

A FORWARD THINKING COMMUNITY...

Racine Water and Wastewater Utilities

Keith E. Haas, P.E.
General Manager

RACINE ON THE LAKE
City of Racine, Wisconsin

Michael L. Gitter, P.E.
Chief of Operations
Kenneth M. Scolaro, C.P.A.
Administrative Manager
Chad W. Regalia, P.E.
Chief Engineer

October 26, 2017

Mr. Keith Haas
General Manager
Racine Water Utility
800 Center Street, Room 227
Racine, WI 53403

SUBJECT: Racine Wastewater Utility Letter of Support of the Mount Pleasant Diversion Application

Dear Mr. Haas:

I am writing, at your request, in regard to your application for a Great Lakes water diversion as required by §281.346(4)(b)4P which states: "4p. If the person who applies under Subd. 1. will not directly return the water to the Great Lakes basin, the person shall identify any entities that may return the water and provide evidence of support for each of those entities in the form of a letter or resolution."

The Racine Wastewater Utility currently processes wastewater from the majority of the Village of Mount Pleasant with the exception of the land associated with the Des Plaines watershed south of Highway 11 in the Village. This area may ultimately receive sewer service from the Racine Wastewater Utility under full build-out conditions in the future. We understand that if Mount Pleasant requires wastewater service to the area outside the current service area boundary, Mount Pleasant would make a request to amend the service area boundary. Changes to the Racine sewer service area are subject to recommendation by SEWRPC and the WDNR and are subject to approval by the Racine Wastewater Commission. If the current Mount Pleasant sanitary sewer service area boundary were to be amended in the future, under ultimate build-out conditions, the sewer service area boundary would coincide with the Racine planning area boundary anticipated for Mount Pleasant.

The Racine Wastewater Commission and Utility are willing to accept the return flow of the diverted water from the future amended sewer service area in Mount Pleasant for the long term in accordance with our DNR approved 2020 Facilities Plan. Acceptance of flows from areas within the planning boundary is planned, but is subject to provisions in the April 25, 2002 Racine Area Intergovernmental Sanitary Sewer Service, Revenue Sharing, Cooperation and Settlement Agreement. In addition, all wastewater flows delivered to the Racine system must comply with any and all rules in place within City ordinances and the sewer agreement. Acceptance of flow is subject to flow allocations that may exist within the Village in accordance with the sewer agreement.

If you have any questions related to this Letter of Support, please contact me.

Sincerely,

Robert Lui
Vice President, Racine Wastewater Commission

800 Center Street, Room 227 Racine, Wisconsin 53403 262-636-9181 (Phone) 262-636-3933 (Fax)