



August 28, 2020

The Honorable Cory Mason
Mayor's Office
730 Washington Ave
Racine WI 53403

Subject: 2020 Documentation of Reporting Requirements for the City of Racine Diversion of Lake Michigan water.

Dear Mayor Mason:

On April 8, 2020 the department received the 2019 City of Racine, Wisconsin Report on Water Diversion (Report). On June 30, 2020 the department received the 2019 Supplemental Report on Water Diversion (Supplemental Report). The Supplemental Report includes revisions to the volume of the diversion reported, more detail on the water uses and wastewater related to the diversion. This letter provides an updated summary and review of the City of Racine diversion based on the Report and the Supplemental Report provided to the department.

The Diversion Approval (Approval) issued by the department on April 25, 2018 requires the City of Racine (City) to submit annual reporting information to the department by March 1st of the following year. Specifically, Section 6 of the Approval requires the City to report the following information for the prior year (2019) to the department:

1. The total amount of water sold monthly or quarterly to each category of customer within the approved diversion area.
2. The total monthly sewerage flow to the City of Racine Wastewater Plant from the diversion area.
3. The total consumptive use as specified by the DNR.
4. A summary of the impact of the implemented conservation and efficiency measures required under Wisconsin Administrative Code NR 852.04 and NR 852.05, including quantifiable impacts to water use intensity, as defined in Wisconsin Administrative Code NR 852.03(29).
5. A description of any additional conservation and efficiency measures implemented.

The following paragraphs briefly summarize the department's review.

1. *The total amount of water sold within the approved diversion area.* The City sold 2,369,831 gallons of water to customers in the diversion area in 2019. The City diverted an additional 2,393,000 gallons of water to the diversion area in 2019 to flush newly constructed water mains. The total water sold and used to flush water mains resulted in the City diverting a total of 4,762,831 gallons of water in 2019 (or an average of 13,049 gallons per day). The City is authorized to divert an average of 7,000,000 gallons per day. The volume of water diverted is below the volume authorized in the City's diversion approval.
2. *The total monthly sewerage flow to the City of Racine Wastewater Plant from the diversion area.* None of the water diverted was returned to the City of Racine Wastewater Plant. The Supplemental Report provides details on the water use in the diversion area. All of the customers were temporary water connections with water uses associated with development of the diversion area. The City's wastewater was generated from the

water main flushing and testing, the hydrant flushing and the gas main water testing and discharged to ditches in the Mississippi River Basin. Typically water main and hydrant flush is discharged to the storm sewer system and is not collected in the wastewater system. In most water systems this is not a consumptive use as the water remains in the same basin where the water withdrawal occurs. However, with the diversion the water main and hydrant flushing fall under normal maintenance and construction activities of the water utility and are allowed under the diversion approval. The Supplemental Report indicates that any permanent customers will be connected to the sanitary sewer system in 2020 at the time water connections are made, and that the 2020 temporary customer that will generate wastewater will transport that wastewater to the Lake Michigan Basin.

3. *The total consumptive use.* The Supplemental Report indicates that the total consumptive use in 2019 was equal to the total diversion, 4,762,831 gallons of water.

The Supplemental Report indicates that one customer used water for dust suppression and two customers used water to make drywall and concrete. The remaining water was used for water main, water hydrant, and gas main testing and flushing.

4. *Water use intensity metrics.* The City outlines the per capita water use calculation in Figure 4 of the Report. The residential per capita water use is reported as 45 gallons per capita per day in 2019. The ratio of maximum day water use to average day water use is described in Figure 5 of the Report. The maximum day to average day water use ratio was 1.55 in 2019. The average day water use per residential equivalent unit calculation is described in Figure 6 and 7 of the Report. The average day water use per residential equivalent units was 238 gallons per day per residential equivalent unit.
5. *A summary of the impacts of the implementation of conservation and efficiency measures.* The City details efforts to implement water conservation and efficiency measures in Figure 8 of the Report.
6. *A description of any additional conservation and efficiency measures implemented.* The City has contracted with AECOM to conduct a leak detection survey and has worked with an industrial customer to reduce water use by 300,000,000 gallons of water per year by installing a new chilling plant.

The department appreciates the additional information provided in the Supplemental Report including the estimate of water use, the progress on the wastewater infrastructure, and the information on permanent customers in the diversion area. The department requests that similar information be provided in the 2020 diversion report.

The department agrees that the Foxconn facility that straddles the Great Lakes Basin Boundary should be counted as being located in the Mississippi River Basin. While this may result in over reporting of the actual amount of water diverted to the Mississippi River Basin, it ensures that all diverted water is reported.

In the City's summary of future water uses, the estimate of the water sales and expected wastewater from the Foxconn Technology Group facility is based on a 10% consumptive use coefficient. This is an appropriate estimate of consumptive use for an industrial facility for estimating expected water use and consumption, however, with the City installing water meters for sales and wastewater meters, the City should be able calculate the actual consumptive use of the Foxconn Technology Group facility. The department requests that you provide the actual consumptive use for this facility in future diversion reports.

The City's 2020 Annual Report is to be submitted to the department by March 1st, 2021.

Please contact Shaili Pfeiffer, Shaili.pfeiffer@wisconsin.gov, with any additional questions regarding your annual reporting.

Sincerely,

A handwritten signature in cursive script that reads "Adam Freihoefer".

Adam Freihoefer
Section Chief, Water Use Section
Bureau of Drinking Water and Groundwater

cc. Steve Elmore, Drinking Water and Groundwater Bureau Director, WDNR (email only)
Keith Haas, Water Utility Manager, City of Racine (email only)
Ed Maxwell, Economic Consultant, Ruckert Mielke (email only)
Matt Matrise, Natural Resources Regional Program Manager, WDNR (email only)
Shaili Pfeiffer, Natural Resources Specialist, WDNR (email only)
Denise Schmidt, Water Division Administrator, PSC (email only)
Jim Zellmer, Deputy Division Administrator, WDNR (email only)