



April 20, 2021

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

Subject: 2021 Documentation of Reporting Requirements for the City of Racine Diversion of Great Lakes Water

Dear Mayor Mason:

On March 1, 2021 the Department of Natural Resources (the DNR) received the *2020 City of Racine, Wisconsin Report on Water Diversion* (Report).

The DNR issued the diversion approval on April 25, 2018 that requires the City of Racine (City) to submit annual reporting information to the DNR by March 1st of the following year. Thank you for submitting your report. Specifically, Section 6 of the diversion approval requires the City to report the following information for the prior year (2020) to the DNR:

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 DNR's review.

1. *The total amount of water sold within the approved diversion area.* The City sold 2,646,566 gallons of water in the diversion area in 2020. The City diverted an additional 6,356,556 gallons of water to the diversion area in 2020 to flush water mains to ensure water quality. The City diverted a total of 9,003,122 gallons of water in 2020 (or an average of 24,599 gallons per day). The City is authorized to divert an average of 7,000,000 gallons per day.
2. *The total monthly sewerage flow to the City of Racine Wastewater Plant from the diversion area.* 5,215,541 gallons of water from the diversion area was returned to the City of Racine Wastewater Plant. The sanitary sewer infrastructure was completed in March 2020 including a wastewater meter for the entire diversion area. The Report indicates that this meter malfunctioned and will be repaired and recalibrated in 2021. The Foxconn facility began discharge of wastewater to the sanitary system in the fourth quarter of 2020. A permanent wastewater flow meter for the Foxconn facility was installed in November 2020.

3. *The total consumptive use.* The Report indicates that the total consumptive use in 2020 was 3,787,581 gallons or 42.1% of the water diverted. Foxconn's water use averaged 7,231 gallons per day in 2020, and the water use was primarily for landscaping and construction of the Foxconn facility. The consumptive use attributed to Foxconn facility was 5,500 gallons per day or 76% for 2020. The Report indicates that it expects the consumptive use percentage to decrease as water use at the Foxconn facilities changes to industrial as normal industrial operations of the facility.
4. *Water use intensity metrics.* The Report include three water use intensity metrics: residential per capita water use, the ratio of the maximum day to average day water use and the average day water use per residential equivalent unit. The residential per capita water use is reported as 46 gallons per capita per day in 2020. The ratio of maximum day water use to average day water use is described in Figure 10 of the Report. The maximum day to average day water use ratio was 1.39 in 2020. The average day water use per residential equivalent unit calculation is described in Figure 11 and 12 of the Report. The average day water use per residential equivalent units was 257 gallons per day per residential equivalent unit.
5. *A summary of the impacts of the implementation of conservation and efficiency measures.* Figure 13 of the Report details the City's efforts to implement water conservation and efficiency measures.
6. *A description of any additional conservation and efficiency measures implemented.* The City contracted with AECOM to conduct a leak detection survey of the Racine Water Utility water mains. The first half of this survey was conducted in 2020 and the second half will be conducted in 2021. Three major geo-thermal projects have been implemented or are in process in Racine. An industrial customer implemented a project in mid-2020 that will to reduce water use by 300,000,000 gallons of water per year by installing a new chilling plant.

The DNR requires the City of Racine to report the above to ensure compliance with the City's diversion approval. The diversion report provided indicated that water use is still very low in the diversion area and in a development phase for much of 2020. Based on the DNR review of the City's report, the DNR requests additional information to ensure that normal permanent customer operations are fulfilling the City of Racine's obligation to return "all of the water less an allowance for consumptive use".

The DNR request that the City provide the following additional information:

- The dates that the Foxconn permanent water and wastewater service connections were established and activated. If these were not at the same time, please explain.
- Tables of temporary water meters describing the volume of water diverted, wastewater generate, consumptive, purpose of water use, fate of wastewater, and explanation of consumptive use, similar to Tables 1 and 2 provided in the 2019 supplemental report. The City's 2019 supplemental report indicated that there were temporary customers in the diversion area in 2020, however the 2020 diversion report does not indicate any temporary customers other than meters for flushing.
- A monthly report on the volume of water sold to permanent customers in the diversion area and monthly volume of wastewater return, from December 2020 through March 2021. This information may help clarify the consumptive use from the Foxconn facility under normal operation.
- Clarification on the status of the wastewater meter that was malfunctioning in 2020. Has this meter been repaired and recalibrated?
- Please provide a table like table 4 from your 2019 report that includes, residential water use, population served and per capita residential water for 2011-2020.

In future reports, related to Table 8, the DNR asks you to include any other details such as how many high-water use mailers were sent and the number of customers requesting leak detection as information is available. If data for the year of the report is not available at the time of the reporting, please note that in your report.

Finally, for further clarification of the diversion approval the DNR requests quarterly or monthly water sales. Please provide water sales information for future reports on a monthly time scale unless only quarterly information is available.

The DNR appreciates the City's detailed diversion report and requests that the City submit additional information by May 21, 2021. The City's 2021 Annual Report is to be submitted to the DNR by March 1st, 2022.

Please contact Shaili Pfeiffer, Shaili.pfeiffer@wisconsin.gov, (608) 219-2216, with any questions regarding your annual reporting.

Sincerely,



Adam Freihoefer
Section Chief, Water Use Section
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cc.

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