The department’s webpage for the City of Waukesha proposed Great Lakes water diversion https://dnr.wi.gov/topic/EIA/waukesha/ includes all public comments received on the Environmental Impact Statement (EIS) that was made publicly available on August 2, 2019. Thirty-six individual comments (oral and written) were received between August 6 and September 19, 2019. Comments were submitted by 29 private individuals, one elected official, and representatives of 9 non-governmental organizations. The department has considered all of these comments. The following is a summary of comments received, by category, with department responses, including references to sections of the Final EIS that were revised based on comments received and/or new information received or collected.

In addition, the department’s webpage includes a summary of the public comments received on the 2015 Draft EIS, between June 25, 2015 and August 28, 2015, and the department’s responses to those comments.

1. **Comment:** It is unclear whether the EIS is a final EIS. Consequently, it is unclear whether or how the department will address public comments on it.

   **Response:** The department encouraged the public to provide comments on the EIS released in August 2019. This was facilitated through a public hearing and extended 45-day comment period. The absence of the word “final” from the title was intended to indicate that the department was prepared to make revisions to the EIS based on public comments and any new information received. As detailed in this document, the department considered comments received and made revisions to the EIS. The Final EIS was made available on December 13, 2019.

2. **Comment:** If the EIS that was made available in August 2019 is not the Final EIS, then it is a new draft EIS – in which case the EIS process should have been started over.

   **Response:** Nothing in the Wisconsin Environmental Policy Act (Chapter 1.11, Wis. Stats.) or Chapter NR 150, Wis. Admin. Code prohibits the department from preparing a revised EIS and making it available to the public prior to issuing a Final EIS. There is no requirement or recommended procedure for re-starting the EIS process in such a case. In making the EIS available to the public in August 2019, the department chose to follow the public review process required for a draft EIS under s. NR 150.30(3).
3. **Comment:** Because the City of Waukesha’s (the Applicant’s) preferred water supply alternative changed between the release of the Preliminary Final EIS in 2016 and the revised EIS in August 2019, the proposed project is a new project – in which case the EIS process should have been started over.

**Response:**

As discussed in Section 3 (Project alternatives) of the Final EIS, the Applicant and the City of Milwaukee entered into a 40-year contract in December 2017 for the supply of Lake Michigan water. Prior to this, the department reviewed the environmental impacts of both an Oak Creek water supply alternative (the Applicant’s preferred alternative at the time) and a Milwaukee water supply alternative. The results of both were presented to the public in the Preliminary Final EIS in January 2016. After the 2017 water-supply agreement with the City of Milwaukee, the Applicant conducted more detailed planning and design studies that led to the identification of three alternative routes for the Milwaukee water supply pipeline: ‘M1’, ‘M2’, and ‘M3’. As with the original Milwaukee water supply alternative, the department reviewed the environmental impacts of the new pipeline routes and presented the results to the public in the revised EIS released in August 2019. The revised EIS referenced and linked to the 2016 Preliminary Final EIS. The Final EIS includes the Preliminary Final EIS in its entirety, in Appendix E.

There is no requirement or recommended procedure in the Wisconsin Environmental Policy Act or Chapter NR 150, Wis. Admin. Code for re-starting an EIS process in order to consider the environmental impacts of additional alternatives, whether modified or ostensibly new. The department chose to follow the public review process required for a draft EIS under s. NR 150.30(3).

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4. **Comment:** The EIS that was made publicly available in August 2019 should have included alternatives that were included in the Preliminary Final EIS; in particular, the “MMSD return flow” alternative to return treated wastewater to Lake Michigan via pipeline to the Milwaukee Metropolitan Sewer District (MMSD) South Shore Outfall. The benefits of this alternative include the avoidance of all potential impacts to the Root River, the alignment of the water supply and return flow pipelines, and reducing the distance between the water return outfall and the City of Milwaukee water supply intake location.

**Response:**

The department reviewed the environmental impacts of the MMSD return flow alternative, along with other water supply and return flow alternatives, and presented these to the public in the Preliminary Final EIS in January 2016. Environmental impacts common to all Root River return flow alternatives are detailed in Section 5.1.2 (Root River) of the Final EIS. The Final EIS includes the Preliminary Final EIS in its entirety, in Appendix E. A table listing all 18 of the alternatives analyzed and reviewed by the department during the EIS process has been added to Section 3 (Project alternatives) of the Final EIS, along with the following discussion:

“Since initiating the EIS process in 2010, the department has analyzed and reviewed the environmental impacts of 18 project alternatives. These include 9 water supply alternatives, 8 return flow alternatives, and 1 ‘No Action’ alternative. Water supply alternatives include 4 City of
Milwaukee supply alternatives, 3 groundwater supply alternatives, 1 City of Oak Creek supply alternative, and 1 City of Racine supply alternative. Return flow alternatives include 5 Root River return alternatives, 1 direct pipeline to Lake Michigan alternative, 1 Milwaukee Metropolitan Sewerage District (MMSD) return alternative, and 1 Fox River alternative (for groundwater supply). Eight of these alternatives are described in Section 3.1 below. The other ten are described in the Preliminary Final EIS, which is in Appendix E.

Table 3-1 lists all of alternatives analyzed and reviewed by the department during the course of the EIS process, including references to the sections of this document where they are described and the sections where their potential environmental effects are discussed.” (pg. 22)

5. **Comment:** Under the preferred alternatives, the distance between the water supply intake (City of Milwaukee) and return flow outfall (City of Racine) is approximately 18 miles. The Applicant is legally required to return water as close as practicable to the place at which the water is withdrawn, unless it demonstrates that returning the water at that place is one of the following: (a) Not economically feasible, (b) Not environmentally sound, (c) Not in the interest of public health.

**Response:** This issue will be evaluated as part of the department’s consideration of the City of Waukesha’s application for a final diversion approval.

6. **Comment:** The proposed project’s use of separate routes for water supply pipeline and wastewater return pipeline results in higher costs.

**Response:** All else being equal, shared or closely-aligned pipeline routes for water supply and return flow lower project costs; however, other factors are involved. As discussed in Section 3 (Project alternatives), the cost of purchasing water from the City of Milwaukee will save the Applicant an estimated $60 million over twenty years compared to purchasing water from City of Oak Creek. In addition, the department’s antidegradation evaluation for the proposed Root River discharge* estimated that the capital cost of the “MMSD water return” alternative discussed in the Preliminary Final EIS (Appendix E in the Final EIS) would be 30 percent higher than that of the proposed return flow route (OC3-preferred).


7. **Comment:** The Final EIS is incomplete based on changed and changing conditions of Waukesha’s historical primary water supply; namely, the deep aquifer. The deep aquifer has recovered in recent years and is therefore a sustainable water source for the Applicant.

**Response:** As noted in Section 4.6.1.2 (Deep sandstone aquifer) of the Final EIS, the department recognizes that water levels in the deep aquifer have recovered in recent years. This is further
discussed in Section 3.6 of the Preliminary Final EIS (Appendix E of the Final EIS). As reported in the department’s Technical Review, however, the water level of the deep aquifer is still 350 feet below pre-settlement levels.* A 2015 evaluation of the regional aquifer by the Illinois Water Survey found that there is a substantial drawdown in northern Illinois and to lesser, but still significant, degree in southeastern Wisconsin.†


8. **Comment:** The Final EIS is incomplete without a more current Technical Review to determine if Waukesha’s application meets state statutes for a Lake Michigan supply and return flow by bringing its current well configuration into Radium compliance by installing hydrous manganese oxide (HMO) filtration on wells 5, 6, 7, and 9.

**Response:** Section 4.2 of the Preliminary Final EIS (Appendix E of the Final EIS) discusses the environmental impacts of a “Zero demand increase alternative,” which would include reverse osmosis to treat radium at three deep aquifer wells and HMO filtration to treat radium at a fourth deep aquifer well. Other radium treatment methods are also discussed. The analysis of the Zero demand increase alternative provides sufficient information to evaluate a water supply alternative that would install HMO filtration on wells 5, 6, 7 and 9. Table 4.2 in the Preliminary Final EIS (Appendix E of the Final EIS) reports deep aquifer well capacities assuming alternate radium treatment methods. The information reported indicates that there is insufficient firm capacity to meet the projected demands without pumping wells in excess of industry standards. Alternatives that include using the existing well system all need additional capacity.

9. **Comment:** Before diverting Lake Michigan water, the Applicant should focus on efforts to conserve its existing water supply, such as gray water systems and restrictions on watering lawns.

**Response:** The following text has been added to Section 3 (Project alternatives) of the Final EIS:

“All of these alternatives (including ‘No Action’) assume that the Applicant will implement a range of water conservation and efficiency measures, as required under the Great Lakes Compact and Ch. NR 852, Wis. Admin. Code, and as set forth in the Applicant’s Water Conservation Plan (CH2M Hill 2013, Vol. 3). The Applicant projects that these measures will reduce water demand by 10 percent, or approximately 1.0 MGD. In its approval decision, the Compact Council found that a diversion cannot be avoided through water conservation and efficiency measures. The 8.2 MGD diversion approved by the Compact Council assumes that the projected reduction in water demand will be achieved (Compact Council 2016).” (pg. 23)
10. **Comment:** Concern over whether the DNR adequately considered the potential for increased Root River flooding, including the potential to compound coastal flooding in the City of Racine caused by historically-high Lake Michigan water levels. Concern over the potential for additional flooding to cause uncompensated property damage.

**Response:** As discussed in Section 5.1.2.2 (Root River flow and flooding effects) of the Final EIS, the return of treated wastewater at a rate of 9.3 million gallons per day (MGD) would contribute an estimated 2.3 to 3.8% of the total river flow at the Root River Steelhead Facility in the City of Racine during high Root River flows; that is, 90th to 95th percentile river flows. The Steelhead Facility is roughly 20 miles downstream from the return flow discharge site and 4 miles upstream from Racine Harbor. 9.3 MGD is the Applicant’s upper-estimate of daily return flow under the Compact-approved diversion of 8.2 MGD of Lake Michigan water. During a 100-year flood event, this return flow is projected to increase water depth at the Steelhead Facility by 0.01 feet. Based on this analysis, the return of wastewater via the Root River is not expected to affect the Federal Emergency Management Agency’s (FEMA) Flood Insurance Study and Flood Insurance Rate Map for areas along the Root River.

11. **Comment:** The EIS does not state how many municipalities currently discharge treated wastewater to the Root River, and at what rate.

**Response:** The beginning of Section 5.1.2.2 (Root River flow and flooding effects) of the Final EIS has been updated to include the following text:

“As discussed in Section 2, the proposed return flow to the Root River would be up to an average of 9.3 MGD at build-out. Currently, two municipalities discharge treated wastewater to tributaries of the Root River. The Village of Union Grove in Racine County discharges 1.0 MGD to the West Branch Root River Canal. The Village of Yorkville discharges 0.08 MGD to Ives Grove Ditch.” (p.112)

12. **Comment:** Support for the proposal as a means of relieving high water levels on Lake Michigan.

**Response:** The proposed diversion is not anticipated to affect Lake Michigan water levels one way or the other. As discussed in Section 5.1.1.2 (Lake Michigan volume effects) of the Final EIS, the maximum annual diversion approved by the Compact Council represents less than 0.00025% of the total volume of Lake Michigan and the Applicant would be required to return an equivalent amount of treated wastewater to the lake.

13. **Comment:** Concern over the effectiveness and reliability of the Applicant’s treatment of wastewater for phosphorous and pathogens prior to discharge into the Root River, and the potential degradation of water quality in the §303(d) Impaired Waters.

**Response:** The Root River’s status as an impaired water is discussed in Section 4.5.3 (Water quality of the Root River) of the Final EIS. Section 5.1.2.1. (Root River water quality effects) of the Final EIS
discusses the anticipated impact of the proposed discharge of treated wastewater on water quality in the Root River with respect to phosphorous, bacteria, and other pollutants. That section was revised to include the following text:

“Wastewater treatment facility upgrades must be reviewed and approved by the department under Chapters NR 108 and 110 of the Wisconsin Administrative Code. A facility plan must evaluate the capability of the proposed facilities to meet [water quality-based effluent limits (WQBELs)] (NR 110.09(2)(d)) and the Applicant must provide treatment facilities that meet WQBELs (NR 110.09(2)(f)).” (pg. 106)

14. **Comment:** Concern over the impact to Lake Michigan water quality of returning treated wastewater from the City of Waukesha to the lake.

   **Response:** Section 5.1.1.1 (Lake Michigan water quality effects) of the Final EIS discusses the anticipated impacts to Lake Michigan water quality. As noted, the volume of treated wastewater that would be returned to Lake Michigan would contribute approximately 1,700 pounds of additional total phosphorus per year, or 2.5 percent of the overall phosphorus loading from the Root River Watershed. The return flow is expected to have no impacts to minimal impacts on the water quality of deep waters of Lake Michigan.

15. **Comment:** Concern over the potential environmental and human health effects of pharmaceuticals in treated wastewater discharged into the Root River.

   **Response:** The effects of pharmaceuticals and personal care products are addressed in Section 5.1.2.1 (Root River water quality effects) of the Final EIS. As noted, the DNR does not have authority to impose discharge limits for pharmaceuticals at this time. Any future criteria developed and promulgated for emerging contaminants, including pharmaceuticals, may be incorporated in future permit reissuances. Under the Compact Council’s June 2016 diversion approval, the Applicant must implement a comprehensive pharmaceutical and personal care products recycling program and continually use the best available methods to encourage the further reduction of such products into the wastewater as recommended by the State of Wisconsin.

16. **Comment:** The EIS does not acknowledge the environmental justice issues raised by the proposed Root River return flow; namely, that impacts to the Root River would disproportionately affect low-income communities and individuals, minorities, and people of color within the fiscally-constrained City of Racine, which would not benefit from the proposed diversion.

   **Response:** Section 5.1.14 (Socioeconomic effects) of the Final EIS details the results of a 2010 study conducted by the UW-Milwaukee Center for Economic Development, titled a Socioeconomic Impact Analysis of the Regional Water Supply Plan for Southeastern Wisconsin. Among other things, that analysis looked at the potential impacts of converting the water supply of the City of
Waukesha and six other groundwater-dependent communities within the Great Lakes basin from a groundwater supply to a Lake Michigan supply. While that study included analyses focused on environmental justice, it did not consider this particular aspect of a Great Lakes diversion. Section 5.1.14 of the Final EIS has been re-titled “Socioeconomic impacts and environmental justice” and revised to include the following paragraph:

“A limitation of the socio-economic impact study conducted by Rast and Madison (2010) is that it did not consider environmental justice impacts associated with the return of treated wastewater to Lake Michigan via the Root River. While the principle benefits of the proposed diversion would accrue to the City of Waukesha and its residents, the potential environmental and human health impacts of returning treated wastewater via the Root River (detailed in section 5.1) would disproportionately affect low-income and minority communities and individuals (e.g., people fishing and wading in the river at public parks) within the fiscally-constrained City of Racine.” (134)

17. **Comment**: Groundwater depletion in Waukesha was caused by over-development and should have been anticipated by the Applicant and responded to through limits to development. The proposed diversion will simply encourage continued development and “white flight” from Milwaukee.

**Response**: As discussed in Section 4.13 (Demographic characteristics and trends) of the Final EIS, the population of both Waukesha County and the City of Waukesha more than doubled between 1960 and 2010, including substantial out-migration from Milwaukee and other urban areas along the Lake Michigan coast. The extent to which corresponding development in and around the City of Waukesha contributed to groundwater problems – and whether the Applicant should have anticipated this – is beyond the scope of the EIS. The diversion approved by the Compact Council would meet the average daily demand for water at build-out (i.e., when all developable land is developed) within the approved diversion area. This area corresponds to the City of Waukesha within its current corporate boundary, plus ‘islands’ of unincorporated land within that boundary. Under the approval by the Compact Council, and in accordance with State law, the Applicant cannot supply Lake Michigan water outside of this area. The Southeastern Wisconsin Regional Planning Commission projected that the population within the diversion area will reach 76,330 at build-out. The current population is estimated at roughly 72,000.

18. **Comment**: The proposed diversion goes against the Great Lakes Compact and sets a precedent that will be exploited by other communities around the Great Lakes.

**Response**: As noted in section 7.1.5 (Precedence) of the Final EIS, the Great Lakes Compact provides limited exceptions for a public water system in a “straddling community” or a “community within a straddling county” to apply for a diversion subject to Compact requirements. Both the DNR Technical Review and the Compact Council’s diversion approval found that any precedent setting impacts will not adversely impact Lake Michigan or the Great Lakes.
19. **Comment:** Concern that the Applicant will divert more water than the Compact Council has approved.

**Response:** The Applicant would be allowed to divert water under the terms of a diversion approval that would include the Compact Council’s conditions of approval. Enforcement of the approval would follow the same procedures for enforcement of any DNR approval. As part of the Compact Council’s June 2016 decision, the Applicant would be required to annually report the daily, monthly and annual amounts of water diverted and returned to the Lake Michigan watershed over the previous calendar year in an Annual Report. The Applicant would be required to submit this report annually by March 1 to the DNR, and the DNR would report information to the Regional Body and the Compact Council. The Annual Report would be made publicly available on the City of Waukesha’s webpage and the DNR webpage.

20. **Comment:** Opposition to the proposed location of the Booster Pumping Station (BPS) at the southeast corner of South Racine Avenue and Swartz Road in the City of New Berlin. The site is part of Minooka Park, a large county park. Siting the BPS at this location is inappropriate and incompatible with public parkland and would negatively impact the aesthetics and rural character of the area surrounding the proposed BPS facility.

**Response:** Section 2.1.3 (Booster pumping station (BPS) facility) of the Final EIS has been revised to clarify that the proposed BPS site is part of Minooka Park and to provide updated information on the BPS site, capacity and height of the water supply storage tanks, and the potential need for dewatering excavated areas. Figure 2-3 (Proposed BPS location and site plan) has been updated to illustrate the current site plan in the context of a clearer aerial view of its nearby surroundings. To minimize the visual impact, the Applicant updated its plans for the BPS facility in September 2019. The current plan is to construct the water storage tanks partially below grade – to an average depth of approximately 19 feet – such that the average height of the tanks will be approximately 35 feet above grade. The Applicant provided two figures illustrating what the completed facility would look like from the nearest road intersection (Figure 2-5) and its cross-sectional dimensions above and below grade (Figure 2-5).

21. **Comment:** Concern over the timing of the construction and the potential for open-cut trenching to result in erosion, disturbance to waterways, and flooding on private properties.

**Response:** These concerns are addressed in Section 5.1.5 (Stream crossing effects) of the Final EIS, which states:

“The DNR typically limits open trench installation of the proposed pipelines to intermittent waterways with no flowing water at the time of construction. If there is flowing water, one of the other crossing methods would have to be used... Many of the stream crossings are proposed to be made using [horizontal directional drilling], thus avoiding trenching-related effects.” (page 119)
22. **Comment:** Concern over the effects of pipeline construction and waterway crossings on fish passage.

**Response:** Potential impacts of different methods of waterway crossings on fish passage are noted in Section 5.1.7 (Pipeline construction effects) of the Final EIS. To minimize impacts, open-trench crossings would only be allowed during no-flow times. Waterways crossed using a dam-and-pump or flume method are expected to be minor and temporary. If horizontal directional drilling (HDD) is employed and results in an inadvertent return of drilling lubricant, or “frac-out,” HDD would stop, and an alternative method would be used.

23. **Comment:** Erosion control measures employed during the pipeline construction at stream crossings could fail and post-construction restoration may not be completed.

**Response:** These concerns are addressed in Section 5.1.7 (Pipeline construction effects) of the Final EIS as follows:

“Erosion and sediment control measures would be required before, during, and after construction until vegetation has established in disturbed areas. Inspections are required weekly and within 24 hours after a precipitation event of 0.5 inches or greater. Repair or replacement is required to occur within 24 hours of an inspection or of DNR notification that repair or replacement is needed.” (page 120)

“Following installation of the pipeline, the [right of way] on either bank would be re-graded to its approximate preconstruction contours. Disturbed stream and river banks would be stabilized. Disturbed soils would be fertilized, seeded, and mulch would be applied” (pg. 121)

“No long-term impacts to streams would be expected if the contours of the streambed are restored to their pre-construction condition, as required by Chapter 30 permitting” (pg. 122)

24. **Comment:** Any impacts to wooded (forested or scrub/shrub) wetlands, including the conversion of wooded wetlands to non-wooded (emergent) wetlands, should be mitigated (offset) by new or restored wooded wetlands.

**Response:** As reported in Section 5 (Environmental effects) of the Final EIS, the proposed project would not result in any permanent fill of wooded wetlands. A total of 0.75 acres of wooded wetlands would be temporarily converted to emergent wetlands. As listed in Table 5-7, the construction of the proposed supply pipeline (M1-preferred) would result in the temporary conversion of 0.05 acres of scrub/shrub wetlands. As listed Table 5-12, the construction of the proposed return flow pipeline (OC3-preferred) would result in the temporary conversion of 0.51 acres of forested wetlands and 0.18 acres of scrub/shrub wetlands. Over time, the converted wetlands would return to wooded cover.