



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:
WW-16J

Bradley P. Halloran, Hearing Officer
Illinois Pollution Control Board
100 West Randolph, Suite 11-500
Chicago, Illinois 60601

Re: Proposed Dissolved Oxygen Time-Limited Water Quality Standard for the Metropolitan Water Reclamation District of Greater Chicago, PCB2016-028

Dear Illinois Pollution Control Board:

On June 12, 2020, the Illinois Pollution Control Board issued a Hearing Officer Order providing public notice of a hearing and requesting comments from interested parties on a proposed dissolved oxygen time-limited water quality standard requested by the Metropolitan Water Reclamation District of Greater Chicago (MWRD) that would apply to discharges from MWRD's combined sewer overflow outfalls to the Chicago Area Waterway System. The U.S. Environmental Protection Agency is providing the enclosed comments to assist the Board as it considers the proposed time-limited water quality standard. These comments do not reflect a final EPA position on this proposal or constitute EPA approval of any time-limited water quality standard that may be adopted and submitted. Formal EPA review can occur only after Illinois has completed its processes for public participation and adoption and submitted the adopted time-limited water quality standard to EPA for review and approval.

Thank you for the opportunity to comment on the proposed dissolved oxygen time-limited water quality standard. If you have any questions regarding our comments, please contact Aaron Johnson of my staff at 312-886-6845 or johnson.aaronk@epa.gov.

Sincerely,

David Pfeifer, Chief
Watersheds and Wetlands Branch

Enclosure

Enclosure – EPA Comments on PCB2016-028 Dissolved Oxygen Time-Limited Water Quality Standard for the combined sewer overflow discharges by the Metropolitan Water Reclamation District of Greater Chicago to the Chicago Area Waterway System

In 2015, the Illinois Pollution Control Board (IPCB) adopted numeric dissolved oxygen criteria for protection of Illinois' aquatic life use designations for the Chicago Area Waterway System (CAWS) and Des Plaines River Watershed. MWRD is seeking a Time-Limited Water Quality Standard (TLWQS) (i.e., a variance)¹ from Illinois' water quality standards pertaining to dissolved oxygen on the basis that "the existence of the [combined sewer overflow (CSO)] outfalls is a human-caused condition and cannot be remedied for the term of the TLWQS."

40 CFR § 131.14 requires that the variance satisfy the following requirements:

- The State must "demonstrate that attaining the designated use and criterion is not feasible through the term of the WQS variance because: (1) one of the factors listed in §131.10(g) is met" (40 CFR § 131.14(b)(2)(i)(A)(I)) and
- The variance must include the requirements that "represent the highest attainable condition the water body or waterbody segment applicable throughout the term of the WQS variance based on the documentation required in (b)(2) of this section" (40 CFR § 131.14(b)(1)(ii)).

In a June 26, 2012 letter to MWRD, EPA explained that an adequate variance demonstration for this situation may be able to be based on 40 CFR § 131.10(g)(3) ("human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place"). Specifically, EPA stated that MWRD's variance request may satisfy 40 CFR § 131.10(g)(3) in this situation because:

- 1) the CSO controls specified in the Tunnel and Reservoir Project (TARP) are a necessary precursor to attainment of the dissolved oxygen criteria;
- 2) there is a schedule for completion of TARP included in the consent decree pertaining to MWRD, Illinois EPA and EPA that has been lodged in federal district court; and
- 3) TARP cannot be completed by the end of the variance term.

EPA reiterated this position in a February 1, 2016 letter to MWRD. EPA continues to believe for the reasons set forth in EPA's 2012 and 2016 letters that a five-year variance for CSO discharges from the dissolved oxygen criteria for CSOs impacted by the McCook Reservoir might be appropriate, without any additional showing of technical or financial infeasibility, because MWRD will not complete construction of the McCook Reservoir under the consent decree until 2029.

¹ As discussed in the Board's April 26, 2018 Final Board Order adopting Illinois' TLWQS rules at 327 Ill. Adm. Code, Part 104, Subpart E, TLWQS are Illinois' term for water quality standards variances, as that term is defined at 40 CFR 131.3(o). For purposes of these comments, EPA will use the terms "TLWQS" and "variance" interchangeably.

As also discussed in EPA's 2012 and 2016 letters, the above rationale does not describe the situation for the Calumet portion of the CAWS discharges because Thornton Reservoir has been in full operation since December 31, 2016 and, thus, construction of TARP has been completed for the Calumet portion of the CAWS. In response to questions from the IPCB about how 40 CFR § 131.10(g)(3) still applies to the Calumet System, MWRD stated in its July 27, 2020 Responses of MWRD to Questions from Pollution Control Board that "[a]t this time, MWRD cannot guarantee that TARP will entirely eliminate CSOs in the CAWS. ... Therefore, the human-caused conditions that are the primary basis for the TLWQS still exist."

However, if MWRD seeks a variance because it believes that CSOs could still occur (although MWRD does not know for sure), then MWRD would need to demonstrate that it is infeasible to implement measures to further reduce or eliminate that possibility. The documentation that MWRD has submitted to the IPCB currently does not appear to do so. While the August 4, 2008 Pre-Filed Testimony of David R. Zenz and its attachments (Exhibit I of the Amended Petition) include a list of measures that would be required to achieve compliance with the dissolved oxygen criteria, that evaluation was based on conditions before completion of TARP and, thus, is not relevant to the current condition in the Calumet portion of the CAWS. Specifically, to demonstrate that CSOs in the Calumet portion of the CAWS (i.e., the human caused condition) cannot be remedied or that remedying those CSOs would cause more environmental damage than to leave in place, consistent with 40 CFR § 131.10(g)(3), MWRD should address:

- 1) Whether, and to what extent, there will still be CSOs now that Thornton Reservoir is in full operation;
- 2) If additional CSOs are expected, to what extent those CSOs will still be contributing to low dissolved oxygen levels;
- 3) If additional CSOs are expected, the potential alternatives to reduce or eliminate the number of CSOs or to provide additional aeration to mitigate the effects of CSOs on dissolved oxygen;
- 4) The feasibility of implementing each potential alternative; and
- 5) What other conditions exist that contribute to low dissolved oxygen levels and what activities could be implemented to mitigate those conditions or otherwise improve aquatic life.

If this additional information is not currently available, then a so-called "bridge variance" to allow time to generate this information to be considered in the event that MWRD seeks to renew the variance in five years might also be appropriate. However, the variance conditions for the Calumet portion of the CAWS included in the proposed Board Order language (as included in the IPCB's November 27, 2019 pre-filed questions for MWRD and IEPA) would only require dissolved oxygen monitoring and annual reporting on that monitoring. If Illinois chooses to grant such a variance, the variance should include all conditions necessary to collect the information described above and identify the next steps to improve dissolved oxygen and aquatic life in the Calumet portion of the CAWS.