



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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OCT 08 2010

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STATE OF ILLINOIS
Pollution Control Board

REPLY TO THE ATTENTION OF:

PC#497

John Therriault
Illinois Pollution Control Board, Clerk's Office
James R. Thompson Center
100 West Randolph Street, Suite 11-500
Chicago, Illinois 60601

Re: R2008-009(A): In The Matter of: Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and the Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303

Dear Illinois Pollution Control Board:

U.S. Environmental Protection Agency has reviewed the Illinois Pollution Control Board's (Board) August 5, 2010, Opinion and Order in the above referenced matter, and the information and public comments that have been submitted pertaining to the Illinois Environmental Protection Agency's (Illinois EPA) proposed recreational use designations for the Chicago Area Waterway System (CAWS) and Lower Des Plaines River (LDPR) (collectively, the Waterways). We appreciate the time, effort and resources that Illinois EPA, the Board, other state and local governmental entities and the public have devoted to this important matter. In particular, we note that hundreds of people and organizations have taken the time to submit public comments, voicing their support for the Board adopting revised water quality standards to ensure that public health is protected for those who recreate in and on the Waterways. Many of these commenters noted their view that such revisions are a necessary next step toward achieving the national goal set forth by Congress in section 101(a)(2) of the Clean Water Act (CWA), that, "wherever attainable, an interim goal of water quality which . . . provides for recreation in and on the water be achieved by July 1, 1983." Both Illinois EPA and the Board deserve tremendous credit for taking extraordinary steps to ensure full public involvement in this process.

The Board's Opinion and Order

The Board's Opinion and Order proposes use designations that do not provide for recreation in the water for any segment of the Waterways, and provide for recreation on the water for only certain segments of the Waterways. The Board's Opinion and Order at 79 cites two factors from 40 CFR 131.10(g) as support for the conclusion that recreation in the water is:

(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; [and]

(4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in attainment of the use.

The Board's Opinion and Order at 22 also cites a third factor — “[n]aturally occurring pollutant concentrations prevent the attainment of the use” — as support for the conclusion that recreation in the water is not attainable for Lake Calumet.

EPA's Comments

On April 15, 2010, EPA provided comments to the Board, which summarized federal statutory and regulatory requirements under the Clean Water Act (CWA) pertaining to water quality standard use designations. This letter does not reiterate that summary, but rather focuses specifically on questions that EPA has regarding the sufficiency of the information in the record before the Board to support the conclusions that recreation in the water is not attainable in any segment of the Waterways, and recreation on the water is not attainable for those segments that the Board proposes to designate for non-recreational and non-contact recreational uses. EPA's comments in this letter are based upon a review of the Board's Opinion and Order, information in the record before the Board that is electronically available on the Board's website, and other publicly available information pertaining to the CAWS that may not have been included in the record before the Board. This letter follows the Board's citation format for citations to the record before the Board, and provides the addresses for the websites where publicly available information was obtained pertaining to the CAWS where information may not have been previously included in the Board record.

There are a number of hydrological modifications, human caused conditions or sources of pollution, and naturally occurring sources of pollutants that Illinois EPA and the Board rely upon in support of the position that recreation in (and, for some segments of the Waterways, on) the water is not attainable for one or more of the three 40 CFR 131.10(g) factors cited by the Board. Specifically, Illinois EPA and the Board rely upon the following:

- (1) recreation in the water is not safe because:
 - a. portions of the Waterways are used by barges and other commercial boats, and recreational boats, and
 - b. the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) periodically draws down water levels in the Waterways to drain storm runoff during rain events to prevent flooding, and the drawing down of water results in flow conditions that are not safe for recreation in and on the water;

- (2) recreation in the water is prevented from occurring because direct access to the water from the Waterways' banks is limited due to the fact that:

- a. certain property owners with land abutting the banks of the Waterways do not allow the public direct access to the Waterways through their land,
- b. it is impossible for recreators to safely enter or exit at certain points in the Waterways directly via the Waterways' banks because the banks consist of steep embankments and vertical walls and lack shallow margins; and

(3) abundant populations of gulls and waterfowl in Lake Calumet, and areas of active gull and waterfowl use in Lake Calumet have high *E. coli* levels, such that natural conditions prevent the attainment of the use consistent with Factor 2 of 131.10(g).

For the reasons set forth below, EPA questions whether the information in the record before the Board on these points demonstrates it is not feasible to attain recreation in or on the water in any segment of the Waterways in accordance with the 40 CFR 131.10(g) factors.

I. Safety Issues

A. Barges and Other Boat Traffic

According to information from the U.S. Army Corps of Engineers (Corps) website (<http://www2.mvr.usace.army.mil/NIC2/Documents/chart130.pdf>), federal navigation channels are present in the Waterways downstream of where Addison Street crosses the North Branch of the Chicago River. However, it appears that upstream of Addison Street, the North Branch of the Chicago River and the North Shore Channel are not subject to regular barge traffic, and so it would not appear that barge traffic impacts recreation in or on the water in those segments of the Waterways.

While the remainder of the Waterways included in this rulemaking is subject to barge traffic and other commercial navigation, the presence of commercial navigation traffic on the Waterways does not appear to be uniform in space or time. Specifically, it appears from lock data maintained by the Corps that few barges transit the Main Stem of the Chicago River, as only 60 barges passed through the Chicago River lock to gain access to Lake Michigan in 2009 (<http://www.ndc.iwr.usace.army.mil/lpms/lock2009web.htm>), and less than 5% of the total barge trips in the Waterway upstream from Lockport in 2006 took place in the Main and North Branches of the Chicago River. See Attach. 7 of Exh. 60 at 65-66, 103 (prefiled testimony of Richard Lanyon). However, more barges utilize the Chicago Sanitary and Ship Canal (CSSC), Calumet Harbor and River, and Cal-Sag Channel segments of the Waterways. Id. Specifically, the number of trips reported for the CSSC, Calumet River, and Cal-Sag segments comprised 40%, 25%, and 15% of the total barge trips reported for the Waterways upstream of the Lockport lock. Id. In 2009, nearly 5,000 and 11,000 barges passed through the O'Brien Lock (on the Calumet River) and Brandon Locks, respectively. See <http://www.ndc.iwr.usace.army.mil/lpms/lock2009web.htm>.

Despite the heavy usage of the Calumet River system, CSSC, and LDPR for commercial navigation purposes and its physically-modified form, there is documentation in the record

before the Board of recreation in and on the water in the barge-impacted segments of the Waterways.¹ The following are examples of such documentation:

1. PC478 at II-5 (Chicago Health, Environmental Exposure, and Recreation Study): 1 person tubing and 3 people water skiing on the Cal-Sag Channel,
2. Exh. 63 (MWRD 2005-2007 recreation use surveys): 3 people swimming in Little Calumet River, 4 people tubing or skiing in Cal-Sag Channel, 3 people swimming and 7 people tubing or skiing in upper CSSC, and 4 people tubing or skiing in the Main Branch/South Branch of Chicago River
3. Attach. B at 4-47, 4-84 and 4-85: 1 person swimming and 6 people skiing or tubing in Little Calumet River, 1 person swimming and 7 people skiing or tubing in Cal-Sag Channel, and 5 people skiing or tubing in South Branch of Chicago River.
4. Exh.279: Photo of group of children swimming and wading in CSSC
5. Exh. 36 at 126-27 (pages 14-15 of Chicago Area Water System UAA October 28, 2003 SAC Meeting): 7% of survey responses noted swimming in participating South Branch of Chicago River and Little Calumet River marinas
6. Attach. A at 7-44: Waterskiing and occasional swimming are noted as “actual” uses in the Dresden Island Pool.

This information suggests that barge traffic does not preclude recreation in all segments of the Waterways at all times, even in areas with barge traffic.

Further, EPA is not aware of information in the record that demonstrates barge traffic is consistently heavy at all times of the year, on both weekdays and weekends, and in all segments of the Waterways used for commercial navigation, such that recreation in the water is never attainable. EPA questions whether such generalized information is sufficient to establish that recreation in the water is not attainable at all times for all segments of the Waterways. EPA also notes that, while recreation in the water is not currently common, and that Illinois EPA asserts that recreation is not safe when there is barge or other large boat traffic, EPA is unaware of information in the record demonstrating that legislative, regulatory or voluntary efforts (time, manner, and place restrictions, increased number of recreational warnings/advisories, local ordinances and planning to better coordinate among users, or more egress and access sites) could not be undertaken to enhance the safety of the Waterways for recreation.

B. Dangerous Flow Conditions Caused By “Draw-Downs”

There is information in the record before the Board suggesting that flow conditions in the Waterways can be unsafe for recreation in and on the water when MWRDGC draws down the water levels in the Waterways to allow storm runoff to drain into the Waterways to prevent flooding. However, EPA is unaware of any information in the record regarding how frequently such “draw-down” conditions exist or the length of time that such conditions exist. Apparently,

¹ Recreation in the water includes tubing and water skiing in the water, as well as activities involving full body immersion in the water (such as swimming or other activities that occur after falling or jumping in the water from a boat, tube or ski). Illinois’ proposed “Incidental Contact Recreation” use designation would not include tubing or water skiing, as contact with the water while recreating on a tube or on a water ski is not incidental, and the probability of ingesting appreciable quantities of water while engaged in those activities would be great.

the draw-downs occur in anticipation of wet weather, and EPA is unaware of any information demonstrating that such draw-downs render recreation unsafe during dry weather conditions. It is also unclear from the record whether the draw-down of water results in unsafe flow conditions throughout all segments of the Waterways or only in specific segments. Indeed, there is testimony from MWRDGC employee Samuel G. Dennison indicating that the draw-down conditions only impact the lower portion of the system. See 09/08/08 Tr. at 80. EPA, therefore, questions whether the record contains sufficient information to demonstrate that the need for drawing down water is a condition that prevents attainment of recreation in all segments of the Waterways (and on the water in certain segments) at all times.

II. Access Issues

Illinois EPA and the Board appear to take the position that recreation in the water is not an attainable use unless recreators have direct shoreline or bankline access into and out of the water. However, this position does not account for the fact that recreators can and in fact do access the water for full body contact recreation, and tubing and water skiing, by using existing public access sites. Moreover, it fails to account for the fact that recreators can access the water for full body contact recreation by intentionally jumping (or climbing down) into the water from boats and intentionally or unintentionally falling into the water while in the course of tubing, water skiing, canoeing, kayaking or jet skiing.

A. Lack of Public Access to the Waterways' Banks

It appears from the record before the Board that a substantial portion of the land abutting the Waterways is owned by MWRDGC, other portions of the land abutting the Waterways are owned by various governmental entities, and other portions of the land abutting the Waterways are privately owned. It has been asserted that the fact that some of these landowners may be unwilling to allow public access to the Waterways through their property is a human caused condition that precludes recreation in and on the Waterways. However, EPA is unaware of information demonstrating that, to the extent that this human caused condition is in fact a substantial impediment to the public accessing the Waterways, this condition could not be remedied by state or local governments taking legislative, regulatory or other actions to work with property owners to ensure that the public has sufficient access to the Waterways. To the contrary, the record contains ample evidence suggesting otherwise. For example, government agencies are working together to improve public access to the Waterways via the implementation of the "Northeast Illinois Regional Water Trail Plan." Exh. 345; see also Exhs. 358-363 (documenting other efforts to improve access).

Moreover, EPA is unaware of anything in the record that quantifies the extent to which this condition exists (*i.e.*, nothing in the record demonstrates on a segment-by-segment basis the percentage of abutting land that is owned by entities who are unwilling to allow for public access). Therefore, it is not possible to determine the extent to which access to the Waterways is in fact impacted by this condition.

Finally, notwithstanding this condition, as discussed above, information in the Board's record demonstrates that all segments affected by the rulemaking: (1) have one or more shoreline public access points (see, e.g., Attach. L, Exh. 346) that allow for recreation in and on

the water by persons or (2) can be accessed by users of recreational power boats, jet skis, canoes, kayaks or other means via nearby public access points.

For all of these reasons, EPA questions whether the record supports the conclusions that lack of public access precludes the use of the Waterways for recreation in and on the water, and that property owners' unwillingness to provide additional public access to the Waterways through their property is a human caused condition that cannot be remedied, thus precluding recreation in all segments of the Waterways.

B. Lack of Safe Means to Directly Enter and Leave the Waterways

In addition to the property owners' issue discussed above, it has also been asserted that recreation in and on the water is not attainable because there are not safe means for recreators to directly enter and exit the Waterways for recreation in and on the water via the Waterways' banks. This assertion is supported by the fact that substantial portions of the Waterways are lined with steep, vertical walls made of rock, concrete, earth or sheet piling and lack shallow margins. However, as was discussed above, there is ample evidence that recreators can safely enter and exit the Waterways via recreational power boats, jet skis, canoes, kayaks or other similar means.

Additionally, EPA questions whether the record demonstrates, on a segment-by-segment basis, that there are in fact no safe means for directly entering and exiting the Waterways via the Waterways' banks. To the contrary, the record contains ample evidence of numerous boat launches and other means that recreators could use to safely enter and exit the Waterways. See, e.g., Attach. L, Exh. 346 and Exh. 353 (docks); Exh. 264 (ladders); Exh. 350 (gently sloping banks); and Exh. 351.

Finally, even assuming that there are segments that entirely lack safe means of directly entering and exiting the Waterways via the Waterways' banks, EPA is unaware of any information in the record that demonstrates that this condition could not be remedied through construction of structures such as docks, ladders, or other structures that would provide safe means for directly entering and exiting the Waterways.

III. Elevated *E. coli* Levels in Lake Calumet Due to Gulls and Waterfowl

The Board's Opinion and Order at 22, in a near verbatim quote from the CAWS UAA study, states:

The UAA study notes that Lake Calumet supports an abundant breeding population of gulls and is surrounded by remnant wetlands that support other breeding and foraging shore bird activities. Attach. B at 5-1. Further, the study notes that research has shown that levels of *E. coli* in lakes and streams are highly influenced by localized contamination by birds and may not always be reflective of man-made pollution, such as combined sewer overflows or sewage discharges. In this regard, data collected by [Illinois] EPA in the summer indicate that *E. coli* levels (>126 cfu) were highest in the areas of active gull and waterfowl use and

lowest in the areas of non-waterfowl use. The UAA study concludes that high bacterial counts due to natural sources may prevent Lake Calumet from becoming a whole body recreation waterbody.

The CAWS UAA study suggests that these high *E. coli* levels may only occur “during early summer at the east side of the lake where and when a large colony of gulls is breeding and fledging young.” Attach. B at 1-9. EPA is unaware of any other information in the record before the Board beyond these cursory statements on this point. EPA questions whether such cursory information is sufficient to demonstrate that “naturally occurring pollutant concentrations prevent attainment” of recreation in all portions of Lake Calumet at all times.

Conclusion

Our comments are preliminary in nature, and do not constitute an approval, disapproval, finding or other determination by EPA under section 303(c) of CWA, or EPA’s implementing regulations at 40 CFR Part 131. EPA will consider the extent to which the Board addresses these preliminary comments when EPA reviews any new or revised water quality standards for the Waterways that Illinois submits to EPA for review and approval in accordance with Section 303(c)(2) the CWA and 40 CFR Part 131.20. In particular, if the Board chooses to proceed with the proposed recreational uses set forth in the Board’s Opinion and Order, EPA urges the Board to provide a fuller explanation of the information that is in the record that address the questions raised by this letter, with specific references to the location in the record where that information is presented, in any final decision that it makes.

If you have any questions, please contact Linda Holst of my staff at (312) 886-6758 or at holst.linda@epa.gov.

Sincerely,



Susan Hedman
Regional Administrator

cc: Douglas P. Scott, IEPA
Marcia Willhite, IEPA