

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
WATER QUALITY STANDARDS AND) **R08-9**
EFFLUENT LIMITATIONS FOR THE) **(Rulemaking - Water)**
CHICAGO AREA WATERWAY SYSTEM)
AND THE LOWER DES PLAINES)
RIVER: PROPOSED AMENDMENTS TO)
35 Ill. Adm. Code Parts 301, 302, 303 and)
304)

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO'S PRE-FILED QUESTIONS TO LAURA BARGHUSEN

1. In Section I, Introduction, you indicate that Openlands is working to “further the goals of the Clean Water Act to make these waterways fishable and swimmable.”
 - A. Would you agree with the statement in the UAA that “navigation and wastewater and stormwater management” are legitimate existing uses of the CAWS? (CDM, August 2007, p 1-1).
 - B. Do you think that in some instances the goal of fishable and swimmable may not be attainable, particularly at all locations, all of the time?
2. In Section II, paragraph 2, you state that the waterways were prioritized based on “whether the trails were paddleable with relatively low cost improvements.”
 - A. Please describe what you have determined to be a low cost.
 - B. What type of improvements were considered?
 - C. Does the plan consider safety of the water trails with respect to presence of large motorized watercraft such as commercial barge and tour boat traffic?
3. In Section II, paragraph 3, please describe and quantify what is meant by the phrase “well used trail”.
4. In Section III, paragraph 3, sentences 3 and 4, you state that there are concentrated areas of activity in the NBCR and launch sites are scattered throughout the CAWS, which reinforces other evidence of intensified recreational uses.
 - A. Do you have any field survey data that illustrates that the launching sites are used intensely for recreational water uses?
 - B. What is the other evidence of intensified recreational use you are referring to?

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5. In Section III, paragraph 3, sentence 5, you state that paddlers heavily use the Chicago River.
 - A. Do you have any field survey data that show that paddlers heavily use the Chicago River. What do you consider to be heavy use?
 - B. Please define what you mean by the Chicago River? The main stem only? If you are including the north branch as part of this statement, please differentiate use occurring on the lower north branch below the dam from that occurring above the Albany Avenue North Branch dam.
6. In Section III, paragraph 4, you state that the Northeastern Illinois Regional Water Trail Plan recommends an access point every 3-5 miles on a trail.
 - A. What is the current distance between access points in various waterways of the CAWS?
 - B. Does the Plan recommend there be safe exit points other than boat launches along the waterways in case of capsize?
 - C. What types of warnings does the plan recommend posting to notify unsuspecting paddlers that they will be sharing water space with large commercial motorized watercraft, where they will run the risk of collision or capsizing from wakes generated by these barges, tour boats and power boats?
 - D. Are access points at this frequency of occurrence adequate to ensure safe egress from the waterways if paddlers capsize in the deep-draft, steep-walled canals and river reaches?
7. In Section III, paragraph 4, you state “Both the MWRD North Side and Calumet Wastewater Treatment Plants will be required to disinfect their effluent to kill bacteria, viruses and parasites ...”
 - A. Are you aware that the proposed regulation sets a numerical limit on indicator organisms, and not pathogens that actually cause disease?
 - B. Are you aware that there is not a good correlation between the concentration of indicator organisms and the concentration of pathogens in effluent-dominated streams?
 - C. Are you aware that neither chlorination nor ultraviolet disinfection effectively kill most viruses or parasites?
8. In Section III, paragraph 4, you state that “Openlands considers the dramatic reduction in bacterial levels that would result from disinfection to be an integral step forward in fostering safe access to the Chicago River and Calumet Area water trails.”

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- A. Is it your understanding that there will be safe levels of bacteria in the CAWS if the plants disinfect? Safe for which activities?
 - B. What bacteria level does Openlands recommend for safe paddling?
 - C. Are you aware of projected bacteria levels in the CAWS that would occur even if disinfection were implemented?
 - D. Can you provide evidence that the current levels of bacteria are unsafe for paddling?
 - E. Do you consider factors other than bacteria levels in assessing safety of access to water trails? What is the relative risk to paddlers resulting from these factors?
9. In Section IV of your testimony, you describe a survey of recreational paddlers that Openlands, Friends of the Chicago River, and the Illinois Water Trails Council conducted in 2006. You indicated that the survey was mailed to 1,500 randomly selected individual households who registered their non-motorized watercraft (canoe or kayak) with the State of Illinois and to members of Northeastern Illinois paddling clubs, participants in the Flatwater Classic canoe race, and members of the public who had requested the Northeastern Illinois Water Trails map. You also indicated that 250 responses were received.
- A. Do you have a formal report detailing the survey methods and results?
 - B. Did the response rate for the different groups you describe vary? Was there a difference between responders and non-responders across these groups?
 - C. If concern for the availability of recreation on the CAWS was strong among this group of enthusiasts, why did only 1 in 6 reply to the survey?
 - D. Further, only about one-third of the respondents reported using the North Branch Chicago River (statistics are not given for other waterways). This indicates that there are many alternatives to canoeing or kayaking on the CAWS. Given that recreators have other good alternatives for recreational paddling in northeastern Illinois, is it worth the public investment to make the CAWS marginally safer?
 - E. Did the survey differentiate between the shallow, wadeable reaches of the North Branch (not included as part of the CAWS) and the deep-draft portion downstream from the dam at Albany Avenue? Are paddlers using the wadeable reaches more than the deep-draft reaches?
 - F. Did the survey ask respondents to comment on health problems resulting from their contact with the CAWS? Did any of the 291 trips on the North Branch make anyone sick? If so, how was this substantiated?

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- G. Did the survey ask the respondents if they chose not to use the North Branch Chicago River or other water trail plan waters because they perceived them to be unsafe because of effluent discharge such that they would use the CAWS waters more if the effluent was disinfected?
10. In Section V, paragraph 1, sentence 2, you state that Ryan Chew rented 55,000 trips on the Chicago River since he opened in 2001.
- A. How does Mr. Chew define a trip?
 - B. How does number of trips translate to number of individual paddlers?
 - C. Were all of the trips exclusively on the Chicago River (Chicago River lock to the Merchandise Mart) or were some the trips on portions of the North Branch not included in the CAWS?
11. In Section VI, Important Aquatic Habitat in Jackson Creek:
- A. Could you explain how the proposed rulemaking will enhance aquatic habitat in Jackson Creek?
 - B. What is the hydrologic connection between the CAWS, the Lower Des Plaines River, and Jackson Creek?
 - C. What is the biological connection between the CAWS, the Lower Des Plaines River, and Jackson Creek?
 - D. What effect would the electric field barrier located north of the confluence with the Des Plaines River have on the ability of fish to migrate between the CAWS, Des Plaines River, and Jackson Creek?
12. In Section VII, paragraph 1, you indicate “[a]djusting our water quality standards to match attainable uses will strengthen the regional vision of our ‘second waterfront’.”
- A. What standards do you believe are attainable today?
 - B. Will the technology-based effluent limits result in attainable uses?
 - C. If the waterways are unsafe during and after a wet weather event, how would you make sure that people know that the CAWS are unsafe? Can this be done easily?
 - D. Do you think the general public might be confused if, for example, 3 days after a rainfall event, certain sections of the waterways are deemed safe and others are not deemed safe until weeks after a rainfall event? What if at a particular location, the number of days a location was safe was different each time it rained?

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- E. Assume there were a simple system so that the general public knew when they should limit their exposure to the water due to the pollutant loads present during or after a rainfall event. Would it still be prudent for people, in general, to avoid contact with the river water and to practice good hygiene (like avoiding exposure as much as possible and washing their hands after recreating), even during dry weather?
13. In Section VII, paragraph 1, you reference "... encouraging communities to better connect with this precious natural resource." Could you please describe or list the natural elements of the CAWS that make it a precious natural resource?
14. In the last paragraph of your testimony, you state that "strengthening aquatic life use designations will contribute to better water quality and aquatic habitat, helping ecosystems throughout the region to reach their potential."
- A. Besides water quality, can you explain the mechanism by which aquatic habitat would be improved by this rulemaking?
- B. Do you have any experience assessing the physical habitat requirements of aquatic life?
15. In the last paragraph of your testimony, you state that "maintaining the status quo can be a factor in the slow degradation of high quality streams, like Jackson Creek, which are vulnerable to shifts in natural conditions."
- A. What evidence do you have that high quality tributaries to the CAWS or Lower Des Plaines River are slowly degrading?
- B. If they are degrading, is there evidence that this degradation is related to conditions in their receiving waters (i.e. the water receiving their flow)?
- C. If these streams are vulnerable to shifts in "natural" conditions, why is it necessary to compensate for these natural conditions in connected receiving streams that only very slightly, if at all, influence them?
- D. Please explain how the proposed incremental increases in DO within the CAWS will improve the fish community in the Lower Des Plaines River and Jackson Creek.
- E. Isn't there an electric field barrier that separates the confluence of the Lower Des Plaines River from the CSSC and waterways connected to the CSSC?
- F. The electric field barrier is designed to prevent the migration of invasive fish species between the Mississippi and Great Lakes basins. How does increased fish diversity in the CSC or CSSC improve the fish community in Jackson Creek if they are isolated from each other?

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- G. What is the evidence that the current conditions of the Des Plaines River are leading to the “slow degradation of high quality streams,” like Jackson Creek?
- H. How exactly will this be improved by the current rulemaking? Does Des Plaines River water feed into Jackson Creek?
- 16. Would you agree with the statement in the UAA that “caution would have to be exercised during and following a wet-weather event?” (CDM, August 2007, pp. 1-7)
- 17. If disinfection were provided at the North Side and Calumet Water Reclamation Plants, would you consider the waterways to be safe for primary contact recreation? Why or why not?
- 18. Is revitalization of urban areas near waterways directly tied to “fishable and swimmable” water? If so, then why has redevelopment of downtown Chicago occurred even though the CAWS is not fishable and swimmable?

Dated: August 25, 2008

Respectfully submitted,

**METROPOLITAN WATER RECLAMATION
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