

Electronic Filing - Received, Clerk's Office, August 25, 2008

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	
WATER QUALITY STANDARDS AND)	
EFFLUENT LIMITATIONS FOR THE)	R08-09
CHICAGO AREA WATERWAY SYSTEM)	(Rulemaking – Water)
AND THE LOWER DES PLAINES RIVER:)	
PROPOSED AMENDMENTS TO 35 Ill.)	
Adm. Code Parts 301, 302, 303, and 304.)	

NOTICE OF FILING

To:

John Therriault, Clerk
 Illinois Pollution Control Board
 James R. Thompson Center
 100 West Randolph St., Suite 11-500
 Chicago, IL 60601

Marie Tipsord, Hearing Officer
 Illinois Pollution Control Board
 James R. Thompson Center
 100 West Randolph St, Suite 11-500
 Chicago, Il 60601

Deborah J. Williams, Assistant Counsel
 Stefanie N. Diers, Assistant Counsel
 Illinois Environmental Protection Agency
 1021 North Grand Avenue East
 P.O. Box 19276
 Springfield, IL 62794-9276

Persons included on the attached
SERVICE LIST

PLEASE TAKE NOTICE that Openlands today has electronically filed PRE-FILED QUESTIONS OF RICHARD LANYON, PRE-FILED QUESTIONS OF WILLIAM J. STUBA, PRE-FILED QUESTIONS OF SAMUEL G. DENNISON, PRE-FILED QUESTIONS OF THOMAS GRANATO, and PRE-FILED QUESTIONS OF KEITH TOLSON, copies of which are herewith served upon you.

Respectfully Submitted,



Stacy Meyers-Glen
 Openlands
 24 E. Washington. Suite 1650
 Chicago, Illinois 60602
 (312) 863-6265

DATED: August 25, 2008

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
WATER QUALITY STANDARDS AND)
EFFLUENT LIMITATIONS FOR THE)
CHICAGO AREA WATERWAYS SYSTEM) R08-09
AND THE LOWER DES PLAINES RIVER:) (Rulemaking - Water)
PROPOSED AMENDMENTS TO 35 Ill. Adm.)
Code Parts 301, 302, 303 and 304.)

**PRE-FILED QUESTIONS OF
OPENLANDS TO KEITH TOLSON, METROPOLITAN WATER
RECLAMATION DISTRICT OF GREATER CHICAGO**

Openlands hereby files questions to Keith Tolson, Geosyntec, consultant for Metropolitan Water Reclamation District of Greater Chicago (District):

- 1) On page 5 of your testimony, you state that the “Geosyntec Team has relied on UAA existing recreational use survey data for the CWS. Where possible, The Geosyntec Team supplemented the [UAA] data with information presented in the technical literature.” Please cite to and explain the literature that you combined with the UAA survey data on existing recreational uses. How was each weighted in your analysis?
- 2) On pages 2 and 3 of your testimony, you state that “...we assume that incidental ingestion by individuals canoeing on the waterway will vary over a range and calculations that are performed account for all users, even those that might capsize.” Did you determine what risk was specifically attributable to the percentage of people who capsize when canoeing or kayaking on the CAWS?
- 3) On page 3 you state that the CAWS was divided into three major waterway segments associated with either the District’s Stickney, North Side or Calumet wastewater treatment plant (WWTP).

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- a. Please give a breakdown of what stretches of the CAWS were included in each of these three segments.
 - b. Do all of the waterways in each segment have identical characteristics?
 - c. Are certain waterways in each segment closer in proximity to WWTP outfalls?
 - d. For each of the three segments, did you average in waterways that are not proposed for incidental contact recreational use when calculating risk for canoeing?
- 4) On page xiii of the Executive Summary in the Microbial Risk Assessment Study that Geosyntec consultants performed for the District (Geosyntec Study), it states that the CAWS “are used for recreational boating, canoeing, fishing and other streamside recreational activities.”
- a. Please state what “other streamside recreational activities” occur on the CAWS.
 - b. Did you know that the UAA Study conducted by the Illinois Environmental Protection Agency (IEPA) reported the following recreational uses occurring on the CAWS: canoeing, sculling, handpowered boating, fishing, wading, skiing, tubing, swimming, diving and jumping? *See* IEPA Attachment B, Chapter 4; IEPA Attachment K.
 - c. Are you aware that the UAA study contains observations by the District of the following uses on the CAWS: swimming, jet skiing, tubing, canoeing, sculling, kayaking, fishing and recreational boating? (*See* IEPA Attachment K; William J. Stuba Testimony, Attachments 1-3.)
 - d. In your opinion, are the above activities listed in the UAA study and District testimony existing recreational uses on the CAWS?

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- 5) The Geosyntec Study refers to WERF's premise that "disinfection is warranted in situations where direct human contact in the immediate vicinity of an outfall is possible...." Geosyntec Study, xxix, 59, 86.
 - a. Can people who canoe, kayak, jetski, or tube come into direct contact with water in close proximity to the District's WWTP outfalls along the CAWS?
 - b. Can these recreational users also be exposed to mist or spray from the WWTPs?
- 6) On page 96 of the Geosyntec Study, it states that "it is unlikely that users engaged in non-immersion activities would be subject to levels of inhaled mists or sprays that will lead to a substantially increased ingested dose." Tolson Attachment 3, 96.
 - a. Did you consider how spray could increase the ingested dose for jet skiers? (*See* Openlands Attachment 1.) Did you consider such for people tubing on the CAWS?
 - b. Did you assess whether the spray or mist from jet skiing would increase the risk of respiratory infection?
 - c. Did you determine how often people on motorized boats are exposed to spray?
 - d. Why did you not account for "intimate exposure near areas that might produce considerable mists, such as aeration stations[?]" Tolson Attachment 3, 133. Is there incidental contact activity, such as jet skiing, kayaking, canoeing, tubing, and sculling on stretches of the CAWS where there are aeration stations?
- 7) The report also states that "[j]etski use is typically thought to involve immersion and thereby would not be allowed under the conditions of the waterway. However, larger jetski boats would be allowed." Tolson Attachment 3, 97.
 - a. Are you aware that the IEPA did not list jet skiing as a primary contact activity, and although borderline, distinguished it from water skiing in its Statement of Reasons

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(SOR) as having a lower likelihood of ingesting appreciable amounts of water? *See* IEPA SOR, 42-43.

- b. Why did you choose to restrict the study to use of larger jetski boats when the IEPA did not limit this secondary contact use by the size of the jetski? *See* Tolson Attachment 3, 97; IEPA SOR, 42-43.
 - c. According to the Geosyntec study, its risk estimates “do not account for jetski use that involves immersion.” Tolson Attachment 3, 97.
 - i. Why did Geosyntec omit this information when it knows jetskiing occurs and will continue to occur as an incidental contact use on the CAWS?
 - ii. Why does it not account for immersion for jetskiing, but it does factor in such from canoeing?
 - iii. Did Geosyntec ever analyze how often jetskiing results in immersion?
 - iv. Although the resulting risk estimates do not account for such, did Geosyntec calculate how much more a jetskier is likely to ingest appreciable quantities of water than a person canoeing? Please provide this data.
 - d. Did Geosyntec analyze exposure rates for kayaking, tubing, or sculling in comparison to canoeing? How much higher is this risk, and how was it accounted for in the Microbial Risk Assessment Study?
- 8) When evaluating secondary attack rates, the Geosyntec Microbial Risk Assessment Study states that it considered “the number of family members that may be potentially exposed from a person infected while recreating on the CWS....” Tolson Attachment 3, 98. In accounting for secondary transmission, the report later states that “[t]he proposed dynamic model considers a steady-state level of immunity and estimates disease

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incidence only in the recreational receptor population and their immediate family.”

Tolson Attachment 3, 120.

- a. Does this mean that the secondary attack rates do not account for age or varied susceptibility of people exposed to carriers?
 - b. How does this account for high secondary attack rates from highly transmissible and infective organisms, such as viruses or *Cryptosporidium* in crowded settings such as daycare centers and schools? See Tolson Attachment 3, 114, 105, 106.
- 9) In quantifying the amount of water ingested by canoeists, Geosyntec relies on a report by Fewtrell that, in studies of rowing and marathon canoeists, approximately 8% of canoeists at freshwater sites reported capsizing and 16% of rowers reported ingesting some water.” Tolson Attachment 3, 99-100.
- a. Do you know the mean level of experience for the marathon canoeists and rowers questioned about capsizing in this study?
 - b. What is the spectrum of experience for people that canoe and kayak in the CAWS?
- 10) When establishing ingestion rates for fishing, the Geosyntec risk assessment report states that “even less water could be ingested by people fishing and boating as compared to canoeists. Therefore the input ingestion rates for these two categories were adjusted downward using professional judgment.” Tolson Attachment 3, 101. How was professional judgment used to set this rate, and who made this decision?
- 11) When discussing how the risk assessment accounted for “exposure duration,” the report states that “assumptions regarding the length of time an individual might be on the waterway are required. Activity based assumptions were developed for this exposure

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- a. Please describe how Geosyntec exercised professional judgment in setting exposure duration for canoeing.
 - b. What literary references did the team rely upon for this decision?
- 12) According to the report, Geosyntec set exposure duration based on times for the Flatwater Classic, a canoe and kayak race on the Chicago River. The report states that, according to Friends of the Chicago River, race times in 2005 ranged from approximately 1 hour to 3.5 hours with the majority of times between 1.5 and 2.5 hours. Tolson Attachment 3, 101. The report concluded that “[b]ased on this information and professional judgment, a triangular distribution was assigned to this input with the minimum time a canoeist would be in the water of 1 hour and the likeliest time in the water of two hours.” Tolson Attachment 3, 101.
- a. If Geosyntec was aware that the average time of a race, where people are trying to paddle as quickly as possible to reach the finish line, is between 1.5 to 2.5 hours, why did the team select an even faster range (between 1 and 2 hours) as time a person will normally spend in a canoe or kayak on the CAWS?
 - b. Did you consider other tours or events, such as the Windy City Kayak Symposium, which offers numerous kayak trips that take from three to six hours, and the range of Friends of the Chicago River canoe or kayak trips that likewise last between three and six hours in duration?
 - c. Did you consider data in other studies, such as the 2006 Paddling Survey conducted by Friends of the Chicago River, Openlands and the Northeastern Illinois Watertrails

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Council, concerning the average time of the majority of canoe and kayak trips in
Northeastern Illinois (including the CAWS)?

- 13) Did you account for heightened risk from repeated exposure for sculling teams that can be out on the water approximately 100 times per year?
- 14) How did Geosyntec arrive at its other exposure times for fishing and boating? *See* Tolson Attachment 3, 101-102.

Attachment 1



Jetskier slowing on the Little Calumet River near the mouth of the Grand Calumet River (7/16/08)

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Code Parts 301, 302, 303 and 304.)

**PRE-FILED QUESTIONS OF
OPENLANDS TO WILLIAM J. STUBA, METROPOLITAN WATER
RECLAMATION DISTRICT OF GREATER CHICAGO**

Openlands hereby files questions to William J. Stuba, Metropolitan Water Reclamation District of Greater Chicago (District):

- 1) On page 2 of your testimony, you state that the District's Administrative/Industrial Waste Division (IWD) staff conducts scheduled trips on Tuesday, Wednesday and Thursday to service the dissolved oxygen (DO) monitoring equipment.
 - a. Do these trips occur every week?
 - b. What is the staff's primary responsibility on these trips?
 - c. When they aren't working in this capacity, staff is to note any observations of floatable materials, bridge and bank activity and recreational activity? (*See Stuba Testimony, 2.*)
 - d. Are there certain people on these trips that are designated to focus on and record such activities?
 - e. What are their instructions?
 - f. How frequently is recreational activity recorded?
 - g. How often do IWD staff monitor for recreational activities on Fridays, weekends or holidays?

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- h. When do boat crews perform other work trips on the waterways, what areas of the waterways do they work, how long are these trips, and what is their purpose?
 - i. How often are recreational activities recorded on these ancillary trips?
 - j. Under the list of “specific recreational activities,” does skiing include both jet skiing and water skiing?
 - k. Where did IWD staff observe jet skiing and tubing on the CSSC and Chicago River (Main and South Branch) in 2005 and 2007?
 - l. Where were people observed swimming in the CSSC in 2005?
 - m. Did IWD staff conduct a scheduled trip on Wednesday, July 16, 2008?
 - n. Did they produce a daily log of that activity? (If so, please produce this document.)
 - o. In that particular log, what were the times and locations of any motorized recreational boats that they observed?
 - p. Did they record anyone fishing on that date? If so, how many people did they observe and at what locations?
 - q. Did staff further record anyone jet skiing? If so, please specify how many and at what time and location.
- 2) On page three of your testimony, you state that a “review of the three years of observations indicates there is generally a lack of any trend toward changing recreational use of the CAWS.” (Stuba Testimony, 4.)
- a. In Attachment 3, only 44 instances of canoeing, kayaking or sculling is recorded on the North Branch of the Chicago River, and 7 instances along the Chicago River, Main and South Branch in September 2007. Are you aware that 511 people

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- participated in the Flatwater Classic alone on September 16, 2007? Are these people accounted for in the District's charts?
- b. Your records from November 2007 list no instances of canoeing, sculling or kayaking on either the Calumet-Sag Channel or Little Calumet River. (*See Stuba Testimony Attachment 3, 2-3.*) Is it safe to say that your figures do not include over 300 female rowers from five major universities that competed in the premier Division I rowing competition on the Calumet-Sag Channel on November 4, 2007?
 - c. Do the IWD figures include any sculling races during that year?
 - d. Do the IWD charts reflect routine practice by high school and college sculling teams from New Trier, North Park University, Loyola Academy and Northwestern University in the North Channel and North Branch Chicago River, between March and June, and again from September through November each year?
 - e. Are you aware that, between 2004 and 2007, Friends of the Chicago River led 34 Chicago Park District canoe trips with nearly 1,000 attendees in summer programs? Do your records include these 1,000 paddlers?
 - f. Did you or IWD staff cross reference their figures with any canoe or kayak rental locations on the CAWS?
 - g. Did you know that the rate that canoe and kayak rentals on the CAWS have increased annually over the last five years?
 - h. Are you familiar with the findings in the Geosyntec Microbial Risk Assessment Report for the CAWS that it recently completed for the District in April 2008? Have you read its findings about the increasing rate of recreational use on the CAWS?

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**PRE-FILED QUESTIONS OF
OPENLANDS TO RICHARD LANYON, METROPOLITAN WATER
RECLAMATION DISTRICT OF GREATER CHICAGO**

Openlands hereby files questions to Richard Lanyon, Metropolitan Water Reclamation District of Greater Chicago (District):

- 1) You state on page 8 of your testimony that the “District’s treated wastewater has been demonstrated to have relatively low levels of pathogenic microorganisms.” In 2002, did the District record geometric mean fecal coliform concentrations as high as 19,538 and 8,231 cfu/100 ml respectively at the outfalls of its Northside and Calumet wastewater treatment plants (WWTP)?
- 2) Did you know that, according to the United States EPA (USEPA), there were times that indicator bacteria (fecal coliform) concentrations were even higher, such that:
 - a) The District’s Northside WWTP effluent exceeded 40,000 cfu/100 ml on several occasions in 2002 and exceeded 120,000 cfu/100 ml in June of that year?
 - b) The District’s Calumet WWTP effluent exceeded 70,000 cfu/100 ml in 2002?
- 3) Are you familiar with the critique by Tim Wade (USEPA) of the MWRD interim risk assessment?
- 4) Do you know of any instances where people have come into direct contact with water in the Chicago Area Waterway System (CAWS) in close proximity to these outfalls?

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- 5) Can you say whether people come into indirect contact, such as getting water on their hands when paddling, jet skiing, tubing or otherwise passing by these outfalls?
- 6) Are you aware that the Dammrich Rowing Center in Skokie (otherwise called the Oakton Street launch site) rents canoes and kayaks approximately a half mile upstream from the District's Northside WWTP?
- 7) Do you know whether high school and college crew teams from New Trier, North Park University, Loyola Academy and Northwestern University, or people that rent canoes and kayaks from this location ever row five minutes downstream past the outflow of the Northside WWTP?
- 8) For recreational users that paddle or crew on the Northside Channel, isn't this an effluent dominated waterway?
- 9) Does the Chicago Park District have a launch site for paddlers at River Park (near Foster Road), downstream of the Northside WWTP? Is this location also heavily used as a fishing spot?
- 10) Are you familiar with the Chicago Park District boat launch and two kayak rental locations at Clark Park (near Addison), which are also downstream of the Northside WWTP?
- 11) Do people frequently kayak or canoe north from the Clark Park boat launch on the North Branch Chicago River?
- 12) How was the District involved in helping the Chicago Park District to establish the River Park and Clark Park launch sites?
- 13) On page 3 of your testimony, you state that "the other 21 miles [of the CAWS] have been deepened, straightened, and/or widened to the extent that they *no longer resemble a natural river channel.*" (Emphasis added.) Your testimony includes characteristics of a natural river system that you state are not attributable to the "typical" CAWS. (See Lanyon Attachment 5.)

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- a) Do the CAWS all have identical characteristics?
- b) In your testimony on page 3, are you stating that there are no reaches of the

CAWS with the following characteristics:

- 1) Gradually sloping banks [*See Openlands Attachment 1*]
- 2) Vegetative cover along the river banks [*See Openlands Attachment 2*]
- 3) Rocks and aquatic vegetation [*See Openlands Attachment 3*]

14) You state that the CAWS were not constructed or altered with recreational and aquatic life uses in mind, correct? Lanyon, 3.

- a) Yet these uses exist?
- b) Are you aware of other man made or heavily altered bodies of water that support recreational activities found on the CAWS?

15) In your testimony on page 5, you state that physical characteristics such as banks with high walls can render hand-powered boating hazardous to individuals. (You also reference in Attachment 4 a report by the District that states in relevant part some recreational activities are hazardous “because of the lack of safe exit points from the water.” *See MWRD R&D Report No. 08-15, “Description of the Chicago Waterway System for the Use Attainability Analysis,”* Louis Kollias (Mar 2008), 1.)

- a) How many boat launch sites are there along the CAWS, which allow paddlers to get in and out the waterways?
- b) How many additional launch sites are planned for construction?
- c) How many private docks or ramps are there between the Clark Park boat launch and the District’s Northside WWTP?

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d) What are the names and locations of launch sites used for canoes and kayaks along the CAWS that the District has approved, cooperated in establishing or partially owns?

What other launch sites is the District currently helping to plan or establish on the CAWS?

e) Please give the names, dates and locations of recreational events that the District has either assisted with or been a partner in over the last five years (such as the Flatwater Classic, where 511 people paddled the Chicago River in 2007).

16) You list frequent barge and large power boat traffic along the CAWS as a safety issue on page 5 of your testimony.

a) Do you know of commercial barge traffic on the North Branch of the Chicago River to the north of Goose Island? Is there commercial barge traffic in the North Channel?

b) Do the Chicago Park District and Friends of the Chicago River offer numerous canoe trips to the public on the North Shore Channel, North Branch of the Chicago River, Main Stem Chicago River, South Branch down Bubbly Creek and along the Chicago Sanitary Ship Canal? Are you aware of any injuries that paddlers have sustained during these trips that resulted from a barge or commercial tour boat?

17) You state that “high flows can impair aquatic life uses when habitat is destroyed and aquatic organisms are swept downstream.”

a) What do you consider a “high flow” event?

b) How often do these take place?

c) At what time of year / season do they occur?

d) What is the duration of these high flow events?

e) When has habitat been destroyed by high flows in the past?

f) Specifically where has this occurred?

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- g) What species were “swept downstream?”
- h) Specifically to where were they relocated?
- i) Would this include species, such as river otters and beavers?
- j) Are there refugia available for fish and wildlife during these flow events?
- g) How many decades have the CAWS periodically experienced high flows?
- h) Is there any evidence of species, such as macroinvertebrates, fish, birds and

riparian mammals (ie: river otters, beavers and muskrats) returning to these areas after high flow incidents?

- i) Hasn't aquatic habitat re-established itself over the years after high flow events?
- j) Does the Tunnel and Reservoir Plan (TARP) reduce the number of high flow

events? Won't TARP further reduce flow when the project is completed?

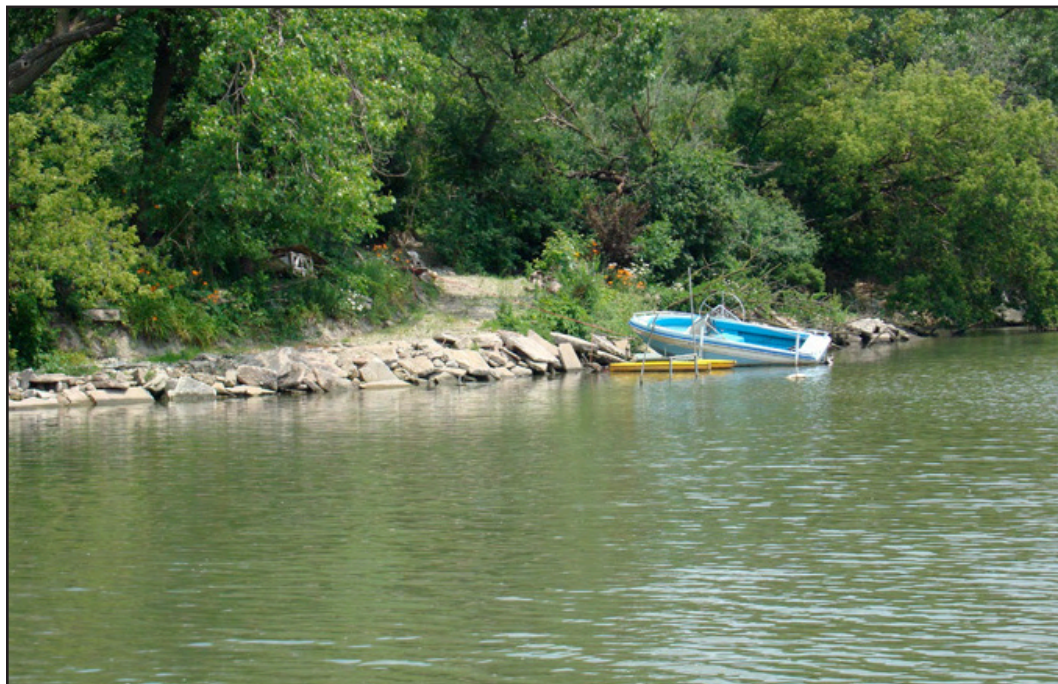
18) According to the District's reports, did fish species in the Chicago and Calumet River Systems rise from approximately 10 to 70 in number over the last thirty years, despite high flow events?

**Attachment 1
Gradually Sloping Banks Along the Chicago Area Waterways System**



Photo on Interior of Cover "Our Goal is Clear," Metropolitan Water Reclamation District of Greater Chicago (2007). Image of skulling on the North Shore Channel. Note the gradual slopes on the edge of the waterway and the tree canopy cover.

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Gradual slope along the Little Calumet River, west of the railroad bridge between Halsted and Indiana Avenue. Notice the gradual slope and the paddling boats by the low rocks.



Little Calumet River between the Lake Calumet Gun Club and Beaubien Woods Boat Launch.

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Fishing along the bank of the Calumet River near the Torrence Avenue Bridge.



North Branch of the Chicago River near Clark Park Boat Launch
Photos courtesy of Chicago River Canoe and Kayak (from website).

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Wading in the North Branch Chicago River at Clark Park Boat Launch.
(Note the aquatic vegetation.)



Fishing along the North Branch of the Chicago River at River Park.

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Attachment 2

Canopy Cover (Trees providing shade for aquatic life)



Photo on Back Interior of Cover "Our Goal is Clear," Metropolitan Water Reclamation District of Greater Chicago (2007). Image of paddling on the North Branch of the Chicago River. Note the tree canopy along the side of the bank.



Gradual slope along the Calumet-Sag Channel at Fay's Point Marina (east of confluence of Little Calumet River). (The water is shallow enough off shore for the Great Egret to walk out from the vegetated bank and hunt in the river.)



Foliage along the north bank of the Calumet-Sag Channel, after the confluence with the CSSC, and west of the sunken tug boat.

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Foliage along the Chicago Sanitary and Ship Canal upstream of MWRD Monitoring Station #10 (Aeration - West / Southwest Sewage Treatment Works).



Foliage along Calumet-Sag Channel between the confluence and Rte. 45.

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Trees lining the Chicago Sanitary and Ship Canal between Summit and the confluence with the Calumet-Sag Channel.



Bench along bank on the Calumet-Sag Channel near Harlem Avenue

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Attachment 3

Rocks and Aquatic Vegetation



Overhanging trees and vegetation in an alcove near the confluence of the Calumet-Sag Channel and the Little Calumet River.



Great Blue Heron perches on fallen branch on the Calumet-Sag Channel, at the confluence of the Little Calumet River.



Riverside Neighbors Restoration on the bank of the North Branch Chicago River (adjacent to Berteau Street).

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**PRE-FILED QUESTIONS OF
OPENLANDS TO THOMAS GRANATO, METROPOLITAN WATER
RECLAMATION DISTRICT OF GREATER CHICAGO**

Openlands hereby files questions to Thomas Granato, Metropolitan Water Reclamation District of Greater Chicago (District) concerning recreational uses and standards:

- 1) On page 3 of your testimony, you state that “man-made waterways do not have a substantial shallow area along the banks.”
 - a. Which waterways does this refer to?
 - b. How do you define “substantial”?
 - c. Do shallow areas otherwise exist along these banks?
 - d. Do the waterways that are not “man-made” also have shallow areas along their banks?
- 2) Are there banks along the CAWS that are not lined with high vertical sheet piling or large limestone rocks?
- 3) Are there places where limestone rock walls have crumbled, creating a more sloped grade?
- 4) Will the completion of the District’s Tunnel and Reservoir Plan reduce the number of drawdowns? How much is it expected to do so?

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- 5) Do recreational uses, such as kayaking and canoeing, currently coexist with barge traffic and motor boats on the CAWS?
- 6) How much commercial barge traffic occurs north of Goose Island?
- 7) On page 4 of your testimony, you state that the “District is confident that the weight of scientific evidence against the proposed 400 fecal coliform cfu/100 mL effluent standard is clear and overwhelming.” Yet you state that the District’s epidemiological study will not be completed until 2010, and that this is an important piece of information in setting a numeric limit. Please explain this contradiction.
- 8) Are you familiar with the critique by Tim Wade, USEPA, of the District’s interim risk assessment?
- 9) Regarding your statement on page six that “[d]espite the fact that effluent disinfection is uncommon in Europe, the incidence of diseases associated with waterborne pathogens among the residents of these counties does not appear to be substantially different than in the U.S.”:
 - a. Did you perform this comparative analysis for the District? If so, what is your experience with microbiology and epidemiology?
 - b. Can you cite specific countries and statistics to substantiate this statement?
(Specifically, what studies are you referring to, and what waterways and activities do they pertain to?)
 - c. Do you have information regarding the popularity of various water recreation activities in these countries relative to the United States?
- 10) You state on pages 6 and 7 of your testimony that “[i]t is essential that the microbial standards for water be reasonably and adequately protective of human health in light of

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the substantial capital expenditure that may be required to bring the CAWS into regulatory compliance.” You also state that “the current rulemaking addresses fecal coliform bacteria, which have been determined by USEPA to be poor predictors of the presence or concentration of pathogens in the water.” In focusing on public health, are fecal coliform numbers more likely to overestimate or underestimate the presence of pathogens in the CAWS?

- 11) You state on page 7 of your testimony that “[t]here is evidence that no disinfection technology can offer a 100 percent guarantee of safe recreational water.” Are you stating that disinfection has not been proven to dramatically reduce certain pathogens found in the CAWS that could potentially cause people to become ill?
- 12) Do other wastewater treatment practices at the District’s Stickney, Calumet and Northside WWTPs generate air emissions from energy usage, air emissions from power generation and transportation of raw and waste materials, and land usage?

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**PRE-FILED QUESTIONS OF
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RECLAMATION DISTRICT OF GREATER CHICAGO**

Openlands hereby files questions to Samuel G. Dennison, Metropolitan Water Reclamation District of Greater Chicago (District) concerning recreational designations of the Chicago Area Waterway System (CAWS):

- 1) On page 2 of your testimony, you discuss general concerns about safe use of the CAWS. Are all of the reaches of the Chicago and Calumet River Systems identical in nature? Or do they have different characteristics?
- 2) You state that “the man-made and modified waterways do not have shallow areas along the banks.” (Dennison Testimony, 2.) Later in your testimony (on page 3), you state that there were some narrow relatively wadeable areas in the CAWS. To clarify, please state what stretches of the CAWS have shallow areas along the banks.
- 3) You list as additional concerns that the water increases in depth quickly from the sides of the waterways, and that the river banks are “lined with high vertical sheet piling or large limestone rocks.” (Dennison Testimony, 3.)
 - a. Are there places along the CAWS that have gradual slopes?
 - b. Are there areas along the different stretches that are not lined with sheet piling or large rocks?

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- c. Aren't there large wooded expanses along the banks of the North Branch Chicago River and the North Shore Channel that do not have high vertical sheet piling or concrete walls?
- 4) On page four of your testimony, you attribute the following quote from the Illinois Environmental Protection Agency (IEPA) Statement of Reasons (SOR) to the CAWS as a whole: "Wakes coupled with vertical-wall construction in many of the waterway reaches make recreational use dangerous. Small craft can easily be capsized and persons in the water will have little if any route for escape. ([SOR,] page 33)."
- a. Doesn't the IEPA then largely attribute these characteristics to areas that it proposes to be "Non-Recreational Waters," such as the CSSC from its confluence with the Calumet-Sag Channel to its confluence with the Des Plaines River (SOR, 33) and the Des Plaines River from its confluence with CSSC to the Brandon Road Lock and Dam (SOR, 34); as well as proposed "Non-Contact Recreational Waters" along the Calumet River on the Lake Michigan Side (north) of Torrence Avenue (SOR, 34)?
 - b. In fact, doesn't the IEPA then go on to state that "[t]he remaining reaches of the CAWS and Lower Des Plaines River are more accessible to the public and support a greater variety of recreational activities. Many of the activities are promoted and occur from March through early November[?]" (SOR, 34.)
 - c. Does the District promote some of these recreational activities, such as the Flatwater Classic, where 511 people paddled the Chicago River and North Branch Chicago River in September 2007? If so, what other activities does the District endorse or provide assistance?

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- d. Are you aware that there are at least 23 boat launches along the CAWS, and numerous others proposed for construction, which allow paddlers to enter and exit the waterways?
 - e. How many launch sites along the CAWS did the District help establish, or provide permission and access to be built?
 - f. Do you know of places in the CAWS, such as on the Little Calumet River near the railroad bridge between Halsted and Indiana Avenue that people can and do tie up or store their paddling boats next to the shore? If so, please state their location.
 - g. In addition, are there marinas, such as Fay's Point, that have places where paddlers can get out of the water?
- 5) In your testimony, you propose that the IEPA designate the CSSC from the South Branch of the Chicago River to the confluence with the Calumet-Sag Channel as "non-contact recreational use" because the waterway has deep areas, lacks access points because of high channel walls, and is used by barges and recreational crafts. (Dennison Testimony, 4.)
- a. Are there boat launch sites that provide canoe and kayak access to this stretch of the CAWS (such as Boat Club Launches, Summit Boat Ramp, and the Western Avenue Launch)?
 - b. In addition, do you know of any boat launches that are planned or proposed for construction that would provide further access to paddlers, such as potential sites at 28th and Eleanor and on the South Branch of the Chicago River, near the confluence with the CSSC?

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- c. How many times have you passed recreational crafts or commercial barges in your electrofishing boat?
 - d. Are there areas along this stretch of the CSSC that do not have high vertical walls?
 - e. How much of the banks along this waterway are lined with trees and vegetation?
 - f. How many Great Blue Herons have you seen while out on this part of the CSSC?
How many Egrets? Have you seen any Black Crowned Cormorants (Night Herons), Green Herons or Kingfishers? Have you observed any eagles on the CSSC or Calumet-Sag Channel? (*See* District Trip Log So. NPDES Patrol (5/13/05), filed as “Recreational Data from 2005 from the MWRD Boat Crew” (Mar 4, 2008).)
- 6) Do you agree that canoeing, kayaking and sculling are existing recreational uses on the CSSC above the confluence of the Calumet-Sag Channel?
 - 7) Do sculling teams practice on the CSSC and South Branch of the Chicago River?
 - 8) Does the City of Chicago conduct student activities (field trips, studies, survey) on the CSSC at Western Avenue? (*See* IEPA Attachment B “Chicago Area Waterways Use Attainability Analysis” (Aug 2007), 4-70.)
 - 9) On page 5 of your testimony, you state that “[t]he Calumet-Sag Channel lacks points of egress along the waterway if a boat capsizes or an emergency situation arises.”
 - a. Can people who kayak, canoe and scull get out of the water at the Worth Police Boat Launch and Howe’s Landing (Alsip) on the Calumet-Sag Channel?
 - b. Is there also access at Fay’s Point and the Little Calumet Boat Ramp (on the Little Calumet River), which are in close proximity to the confluence with the Calumet-Sag Channel?

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- 10) Are there areas along the banks of the Calumet-Sag Channel without steep limestone channel walls where a canoe or kayak could exit the water?
- 11) Do some of the crumbled rock walls provide refuge for aquatic life? (*See* IEPA Attachment B “Chicago Area Waterways Use Attainability Analysis” (Aug 2007), 4-83.)
- 12) Are there homes with private docks / ramps down to the water along the Calumet-Sag Channel?
- 13) Are there resting places (with benches) that slope down to the river bank?
- 14) In addition to the five miles of forest preserve district property upstream of the CSSC, how much of the Calumet-Sag Channel banks are lined with trees and other vegetation?
- 15) Please state whether you are aware of the following existing recreational uses on the Calumet-Sag Channel:
 - a. Routine sculling practices and races, including the 2007 Division I competition where 300 women raced on the Calumet-Sag Channel.
 - b. Observations of swimming, diving, skiing, tubing, wading, fishing and power boating during the limited UAA study observations in 2003.
 - c. The District observed canoeing, kayaking and sculling in 2005 and 2006 along the Calumet-Sag Channel. (*See* Stuba Testimony, Attachments 1 and 2.)
- 16) You state on page 5 of your testimony that “industrial riparian land use is common along the Calumet-Sag Channel, except for an approximately 5 mile reach upstream of the confluence with the Chicago Sanitary and Ship Canal, which is forest preserve.” How much of the property along the banks of the Calumet-Sag Channel is commercial or industrial?

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- 17) In your testimony concerning Bubbly Creek (on page 5), you state that there are steep banks and vertical sheet pile walls in some or most of the reaches. Please clarify areas along the 1.3 mile waterway that do not have these characteristics.
- 18) You also express that Bubbly Creek has limited access points for people to leave the water. Where are these access points and how far are they from the confluence with Bubbly Creek?
- 19) Please list the date and location of any canoe or kayak tours and events on Bubby Creek.
- 20) On page 6 of your testimony, you propose that the Chicago River be designated as “non-contact recreation” because it is analogous to the section of the Calumet River from Lake Michigan to Lake Calumet.
 - a. Has the residential and commercial community changed along the Chicago River in the last 10 years?
 - b. Are you familiar with the recreational goals in the City of Chicago’s 2005 River Agenda?
 - c. Are you aware of the substantial economic and cultural investment that the City of Chicago has made in the Chicago Riverwalk?
 - d. During the 2008 commemoration of Chicago Riverwalk portion from Lake Shore Drive to Franklin Street, were you aware:
 - i. That Mayor Daley likened recreation and commercial benefits of the Chicago River to Lake Michigan, calling it Chicago’s “second shoreline?” That he stressed protecting both of these “natural assets?”
 - ii. That, during that event, the City’s Riverwalk Development Committee called the downtown stretch of the river a “Museum of Architecture,” and has

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successfully coordinated with numerous restaurants and commercial enterprises along our river front?

- iii. That the Department of Cultural Affairs is curating the “Chicago Looks” Public Arts Program along its banks?

See <http://www.youtube.com/watch?v=6LsIy8bnwZs&feature=user> (Note both the kayakers and tour boats in the background on the Chicago River during the commemoration speeches.)

- e. What is the percentage of commercial barge traffic on the Chicago River compared to the Calumet River?
- f. Are you familiar with the Chicago River Rowing and Paddling Center boat launch on the south bank of the Chicago River on the riverwalk level at Lake Shore Drive? That the facility caters to rowing, canoeing and kayaking on the Chicago River?
- g. Please list existing and current recreational activities and events that you are aware of along the main branch Chicago River.
- h. What kinds of riparian mammals (such as river otters and beavers) have you seen on the main branch of the Chicago River? What kind of birds (such as herons and hawks) have you observed along this waterway?

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CERTIFICATE OF SERVICE

I, Stacy Meyers-Glen, the undersigned, hereby certify that I have served the attached PRE-FILED QUESTIONS OF OPENLANDS upon:

Mr. John T. Therriault
Assistant Clerk of the Board
Illinois Pollution Control Board
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601

via electronic mail on August 25, 2008; and upon the attached service list by depositing said documents in the United States Mail, postage prepaid, in Chicago, Illinois on August 25, 2008.

Respectfully Submitted,



Stacy Meyers-Glen
Openlands
24 E. Washington. Suite 1650
Chicago, Illinois 60602
(312) 863-6265

DATED: August 25, 2008