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WATER QUALITY STANDARDS AND)		
EFFLUENT LIMITATIONS FOR THE)	No. R08-9	
CHICAGO AREA WATERWAY SYSTEM)	A Section of the sect	
AND THE LOWER DES PLAINES RIVER:)	DEAEN/ER	
PROPOSED AMENDMENTS TO 35 Ill.)	RECEIVED CLERK'S OFFICE	
Adm. Code Parts 301, 302, 303)	050 4 0 6066	
and 304.)	SEP 1 9 2008	
		STATE OF ILLINOIS	17
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TRANSCRIPT OF PROCEEDINGS held in the above-entitled cause before Hearing Officer Marie Tipsord, taken before Tamara Manganiello, RPR, at 100 West Randolph Street, Room 9-040, Chicago, Illinois, on the 8th day of September, A.D., 2008, commencing at 9:08 a.m.

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     APPEARANCES
     ILLINOIS POLLUTION CONTROL BOARD:
 3
     Ms. Marie Tipsord, Hearing Officer
     Ms. Alisa Liu, P.E., Environmental Scientist
     Mr. Anand Rao, Senior Environmental Scientist
     Mr. Tanner Girard, Acting Chairman
     Mr. Nicholas Melas
     Mr. Thomas Johnson
 6
     ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
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     Ms. Deborah Williams
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          MS. JESSICA A. DEXTER
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              Appeared on behalf of ELPC, Prairie Rivers
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              Network and Sierra Club
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     (773) 731-1762
     BY:
         MR. KEITH HARLEY
20
              Appeared on behalf of the Southeast
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              Environmental Task Force
22
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1 HEARING OFFICER TIPSORD: 2 morning. My name is Marie Tipsord and I have been appointed by Board to serve as Hearing Officer in this proceeding entitled Water 5 Quality Standards end Effluent Limitations 6 For the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Admin. Code 301, 302, 303 and 304. 8 9 The docket number is R08-9. 10

To my right is Dr. Tanner Girard, the lead Board member assigned to this matter. To his right is Board member Nicholas J. Melas. To my far left is Board member Thomas Johnson. To my immediate left is Anand Rao from our technical staff and his left, Alisa Liu, also from our technical staff.

This is the fourth set of hearings to be held in this proceeding. Today's hearing is to begin -- the purpose of today's hearing is to begin hearing testimony from participants other than the proponent, the Illinois Environmental Protection Agency.

At a prehearing conference on

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August 26th, the participants agreed that we would begin this portion of the hearing with testimony from the Metropolitan Water

Reclamation District of Greater Chicago.

We will follow the order of testifiers chosen by the District and filed with the Board on September 3rd. Thus, we will start with Richard Lanyon and we will go on from there.

After entering the testimony as an exhibit as if read, we will proceed to questions for the testifiers and the order of questioners will be, if they have pre-filed for that particular witness, we will start with the National Resource Defense Counsel, go to the IEPA, the People of the State of Illinois, Openlands and the Environmental Law & Policy Center, who are representing a whole host of people in this proceeding.

Anyone may ask a follow-up question and you need not wait until your turn to ask questions if your question follows what we're discussing at the time.

I do ask that you raise your hand,

wait for me to acknowledge you, after I have acknowledged you, please state your name and who you represent before you begin your questions.

Please speak one at a time. If you're speaking over each other, the court reporter will not be able to get your question on the record. I would also note that if you try to ask a question from the back of the room, you're probably going to have to come forward so we can hear you.

Please also note that any
questions asked by a Board member or staff
are intended to help build a complete record
for the Board's decision and not express any
preconceived notions or bias.

We will go until around 5:00 o'clock today with a lunch break and we'll also have a couple breaks in the morning and the afternoon. I do note that there is someone here. Could you identify yourself, please, for the record?

MR. JOYCE: Tony Joyce. I work with Commissioner Frank Avila at the Water

	rage /
1	Reclamation District.
2	HEARING OFFICER TIPSORD: Who has
3	brought a video camera and would like
4	permission to videotape the proceeding; is
5	that correct?
6	MR. JOYCE: Correct.
 7	THE COURT: Is there anyone who
8	objects to videotaping of the proceeding?
9	Seeing none at this time, we will
10	allow him to videotape. At any time if
11	anyone does have an objection, I will ask him
12	to turn the tape off. Dr. Girard, would you
13	like to say something this morning?
14	DR. GIRARD: Good morning. On behalf
15	of the Board, I welcome everyone to the
16	hearing in this water rulemaking.
17	The Board is grateful for the time
18	and effort invested by the participants who
19	pre-filed testimony and questions. We look
20	forward to a productive hearing. Thank you.
21	HEARING OFFICER TIPSORD: Thank you,
22	Dr. Girard. With that, we'll have the court
23	reporter swear in Mr. Lanyon.
24	(Witness sworn.)

1	MR. ANDES: Before we get started with
2	Mr. Lanyon's testimony, there are some
3	documents I'd like to introduce as exhibits,
4	not to Mr. Lanyon's testimony, but into the
5	record as a general matter. And I have
6	copies here, there are copies on the table
7	for everyone else.
8	HEARING OFFICER TIPSORD: Okay.
9	MR. ANDES: There are three documents
10	in particular that will be referred to at
11	some point in testimony or questions. One is
12	a Reconnaissance Report on the Chicago
13	Sanitary and Ship Canal from the U.S. Army
14	Corps of Engineers dated June 2002.
15	HEARING OFFICER TIPSORD: Let's do
16	them one at a time.
17	MR. ANDES: Okay.
18	HEARING OFFICER TIPSORD: Is this one
19	copy?
20	MR. ANDES: Yes. I have more if
21	they're needed.
22	HEARING OFFICER TIPSORD: Yes. I've
23	been handed the Reconnaissance Report, Great
24	Lakes Navigation System Review, Appendix D,

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1	evidence.)
2	MR. ANDES: The second exhibit is the
3	Settlement Agreement in the case of Natural
4	Resources Defense Council versus US EPA dated
5	August 7th, 2008.
6	HEARING OFFICER TIPSORD: If there is
7	no objection, we will mark that as
8	Exhibit 58.
9	Seeing none, it is Exhibit 58.
10	(Whereupon, Exhibit
11	No. 58 was received in
12	evidence.)
13	MR. ANDES: The last exhibit, dated
14	September 5th, 2008, is a letter with
15	attachments from Louis Kollias at the
16	Metropolitan Water Reclamation District of
17	Greater Chicago to Marcia Wilhite at Illinois
18	EPA concerning errata sheet April 2008 dry
19	and wet weather microbial risk assessment
20	report.
21	HEARING OFFICER TIPSORD: If there is
22	no objection, we'll mark this
23	MS. WILLIAMS: Hang on. Hang on.
24	This is I just want to make sure. This is

1	dated September	er 5th,	2008. I	want	to make
2	sure that we'	ve actua	ally seen	it.	

I think I'd like to object that we enter a letter to the Agency that the Agency has actually not reviewed or seen yet. It's probably in Ms. Wilhite's mailbox.

HEARING OFFICER TIPSORD: So is your objection to relevance?

MR. ANDES: It's been sent.

MS. WILLIAMS: My objection is to foundation, actually, at this point. I mean, I don't know that this letter was actually sent because it hasn't actually been received.

HEARING OFFICER TIPSORD: I think we can assume it was sent. I don't know that --

MS. WILLIAMS: Can we go back to this one? Which testimony is it relating to?

MR. ANDES: That would be relevant to Petropolou, Tolson & Gerba. We could have someone come and testify that they did send it, if that's needed.

MS. WILLIAMS: I guess my -- you mean you said these are things that were referred

Yes. We can get you a

MR. ANDES:

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superintendent, I was the director of

research and development for seven years.

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career at the District began in 1963. I have served in managerial positions in the engineering and maintenance main and operations departments as well as in research and development.

HEARING OFFICER TIPSORD: Excuse me,
Mr. Lanyon, could you please speak up?

MR. LANYON: Sure. I received a bachelor and master of civil engineering degrees from the University of Illinois at Urbana-Champaign. I received the American Society of Civil Engineer's national government civil engineer of the year award in 1999 and distinguished alumnus of the department of civil and environmental engineering at the UIUC in 2003.

I am also a past president of the Illinois section of the American Society of Civil Engineers and have been involved in a variety of technical activities for this society.

The Water Environment Federation, the Illinois Association of Wastewater Agencies, the U.S. Geological Survey and the

	Page	15
1	National Association of Clean Water Agencie	s.
2	Currently, I served on the board	l
3	of directors of the National Association of	;
4	Clean Water Agencies and I am chair of the	
5	National Biosolids Partnership's steering	
6	committee and chair of the Water Environmen	ıt
7	Federation's Sustainability Community of	
8	Practice.	
9	My testimony provides an overvie	;W
10	of the Chicago Area Waterway System,	
11	including its history and physical	
12	attributes, its current uses and past,	
13	present and future efforts by the District	to
14	improve conditions.	
15	HEARING OFFICER TIPSORD: Excuse me,	
16	Mr. Lanyon, this is a summary of your	
17	testimony, correct?	
18	MR. ANDES: Yes.	
19	HEARING OFFICER TIPSORD: Okay. Jus	it
20	wanted to check.	
21	MR. LANYON: Chicago Area Waterway	
22	System overview, history and physical	
23	attributes.	
24	The evolution of the Chicago Are	:a

Waterways, which I shall refer to as the CAWS, through the alteration of its natural rivers and the construction of artificial channels allowed Chicago to prosper and expand.

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Construction of the Chicago
Sanitary and Ship Canal was completed in
1900, reversing the flow of the Chicago River
and the South Branch away from Lake Michigan.

The river, which historically acted as an open sewer receiving the discharge of sewage from city sewers, flowed directly into Lake Michigan before the ship canal was built. During storms, water from the Chicago River would move further into Lake Michigan near the drinking water intakes for the City, threatening outbreaks of waterborne illness. During dry weather, it was a source of odors and a public nuisance.

The North Shore Channel and
Wilmette Pumping Station and control gates
were completed in 1910 through which Lake
Michigan water was diverted to dilute and
flush waste water downstream through the

North Branch of the Chicago River which was
deepened to accommodate the additional flow.

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The North Shore Channel also conveyed the discharge from the sewers in Evanston, formerly draining into Lake Michigan.

Upon completion of Calumet-Sag
Channel and the Blue Island Lock in 1922, the
Calumet River was also reversed to flow away
from Lake Michigan. Attachments 1, 2 and 3
respectively, provide a current map of the
CAWS, a photograph showing construction of
one of the channels and diagram of the flow
reversal.

HEARING OFFICER TIPSORD: Excuse me, just to be clear, that's attachments to your testimony?

MR. LANYON: Yes, ma'am. I'll refer to this enlargement of Exhibit 1, which has a depiction of the current CAWS system.

HEARING OFFICER TIPSORD: I'm sorry to keep interrupting you, but you referred to this as Exhibit 1. Is that Attachment 1?

MR. LANYON: Attachment 1. I'm sorry.

HEARING OFFICER TIPSORD: That's 2 alright. Just for the people who aren't --3 MR. LANYON: Attachment 1 of Exhibit 60. 5 HEARING OFFICER TIPSORD: People who are reading the testimony won't be able to --6 7 reading the transcript won't be able to 8 figure it out and follow this as clearly as 9 we can. Thank you. 10 MR. LANYON: I referred to Chicago 11 Sanitary and Ship Canal which began at Damen 12 Avenue and all the way to Lockport, Illinois. 13 I referred to the North Shore Channel, which 14 begins at Wilmette at the Wilmette Pumping 15 Station that flows down to its junction with 16 the North Branch of the Chicago River near 17 Foster Avenue. And I referred to the 18 Calumet-Sag Channel, which was constructed 19 from Blue Island where it connects with the 20 Little Calumet River and westward to where it 21 joins with the Chicago Sanitary and Ship 22 Canal. 23 The Chicago River Controlling

Works was built in 1938 and the Blue Island

24

Lock, which I referred to, was replaced by the O'Brien Lock and Dam on the Calumet River where it's name changes to the Little Calumet River.

Channel construction and modifications to the CAWS established a navigable connection between the Great Lakes and the Illinois River, making Chicago a commercial center. Today, most of the CAWS is part of the Illinois Waterway a federal navigation project under the oversight of the U.S. Army Corps of Engineers and the U.S. Coast Guard.

Constructing channels also allowed for the drainage of sewage before sewage treatment was employed and ultimately for the drainage of treated wastewater.

Most significantly, man-made channels facilitated the reversal of the Chicago and Calumet Rivers away from Lake Michigan so that Chicagoans could be provided safe and reliable drinking water.

At the time, the CAWS was not constructed or altered with recreational or

aquatic life use designations in mind. While other purposes have involved over its time, it is important to remember that, above all, the CAWS must still support these commercial navigation and urban drainage functions that are so crucial to the public health and commercial success of Chicago.

Currently, the District manages the flow in the CAWS, which consists of 78 miles of canals and serves the Chicago area to drain urban storm water runoff and treated municipal effluent and support commercial navigation.

Approximately 57 of the 78 miles of waterways controlled by the District are man-made where no natural river channel previously existed. The other 21 miles have been deepened straightened and/or widened to such an extent that they no longer resemble a natural river channel.

The flow of water in the CAWS is artificially controlled by hydraulic structures. While flow in the CAWS is managed by the District, it must meet the

requirements of a U.S. Supreme Court Decree concerning allowable diversions from Lake Michigan and federal regulations providing for the maintenance of navigable depths to support commercial navigation.

The Chicago River Controlling
Works was constructed by the District in the
late 1930's and was put into operation on
January 1, 1939, in compliance with the U.S.
Supreme Court Decree governing the diversion
of Lake Michigan water.

This facility is currently
maintained and operated by the U.S. Army
Corps of Engineers and serves as one of three
CAWS lakefront control structures.

The O'Brien Lock and Dam was constructed by the U.S. Army Corps of Engineers in 1960 as part of the Calumet-Sag Channel widening project.

This structure replaced the Blue
Island Controlling Works located at the east
end of the Calumet-Sag Channel. The O'Brien
Lock and Dam controls the volume of water
diverted from Lake Michigan and the flow in

the Calumet-Sag Channel.

The flow in the channel moves downstream into the ship canal where the flow is controlled by other lock and dam structures at Lockport. Operation of the control structures can result in wide fluctuations in flow velocity and depth in the channel. High flows can impair aquatic life uses when habitat is destroyed and aquatic organisms are swept downstream.

natural. Rather, they result from the District's operation of the waterway system to provide for navigation, urban drainage and flood damage reduction. During waterway drawdowns in anticipation of storm events, water levels and depth decreased with increased flow in the downstream reaches of the waterway system, whereas, in a natural river the water level will rise and depth will increase with an increase in flow.

Further, flow regime variations occur entirely within the restricted rectangular or trapezoidal prism of the

various reaches of this man-made channel system. There is no over-bank expansion of the waterway with flow increases which would occur in the floodway and floodplain of a natural river.

All outflow exits the CAWS at the Lockport Powerhouse and Lock and the Lockport Controlling Works. However, there are several sources of inflow to the CAWS. These include treated effluent from water reclamation plants, discretionary diversion from Lake Michigan water to operate the navigation locks, leakage through control walls, tributary streams, storm water runoff and combined sewer overflows.

Over 70 percent of the annual flow in the system is from the discharge of treated municipal wastewater effluent from the Calumet, Lemont, North Side and Stickney plants owned and operated by the District.

During dry weather periods, mainly in the winter months, virtually 100 percent of the flow is from these plants and other water reclamation plants on the tributary

streams. During wet weather periods and in the summer months when lake diversion is occurring, about 50 percent of the flow is from the water reclamation plants.

A comprehensive description of the CAWS's operations, facilities and individual waterways can be found in Attachment 4 of this testimony.

Features of a natural river such as gradually sloping banks, varying sediment size, bends, aquatic vegetation, riffles and a mix of shallows and deep pool areas are absent in most of the CAWS.

The physical characteristics of the CAWS present safety issues that may render activities such as swimming, wading and hand-powered boating hazardous to individuals. The man-made waterways do not have a shallow area along the banks, the depth drops off very rapidly, sediments are soft and unstable, many bangs are lined with high walls consisting of vertical sheet piling, concrete, wood or large limestone rocks, periodic drawdowns of water levels

cause unexpected rapid increases in stream velocity and there is frequent barge and large powerboat traffic.

A rapid drawdown of water levels in the CAWS before or during a large storm is a necessary action for draining storm runoff to protect streets and basements in Cook County from flooding.

A diagram comparing the characteristics of a natural river versus the CAWS can be found in Attachment 5 of this testimony.

This is an enlargement of the exhibit -- the attachment I referred to and it shows in the first sketch at the top of the exhibit what a typical cross section of the rectangular section in the canal system looks like with barges on the water level.

On the bottom is a depiction of what a natural river would look like with less depth, a wider surface area, shallow areas along the banks with emergent vegetation.

Also, to the right-hand side of

that attachment shows a typical straight line section of the canal system versus a meandering section of a natural river.

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Further impacting the CAWS is the extremely high percentage of impervious surfaces in the watershed area. Aquatic environments, including the CAWS, are negatively impacted by the abundance of impervious surfaces, ground that does not absorb rain water, in their drainage areas as well as the lack of riparian zone area immediately surrounding the waterway habitat.

Several literature sources suggest that there is a sharp decrease in aquatic habitat quality and a strong correlation to decreased aquatic diversity when impervious surfaces cover greater than 10 to 15 percent of the watershed.

Percent watershed imperviousness beyond 30 percent results in severely degraded conditions for aquatic life in the form of either reduced benthic communities or the absence of fish life.

The 2001 natural -- sorry, the

2001 National Land Cover Data Set, which is presented in Attachment 6 of this testimony, indicates that impervious surfaces cover about 42 percent of Cook County.

In a U.S. report, imperviousness was related to the use attainability of streams as follows: Recently, the imperviousness of the watershed has been suggested as an indicator that the correlated with use attainability. If the frequency cited threshold -- I'm sorry, if the frequently cited threshold of 25 percent impermeability is used, streams in watersheds with greater than this value could be considered unlikely to ever attain a beneficial use regardless of site- and reach-specific factors.

Furthermore, vertical limestone or sheet piling walls do not provide shallow habitat along the channel banks where light can penetrate and aquatic plants can grow. This lack of stream cover and protection limits fish spawning, diversity and abundance and growth of larval fish.

By definition, channels are void of sinuosity, that is, bends, a property essential for normal sediment transport and the development of riffle, run and pool sequences found in natural streams.

in the Chicago area, like industrial land use and commercial barge traffic, also impact the safety of activities such as wading and small hand-powered boating. Much of the CAWS consists of man-made, deep, trapezoidal-shaped channels that experience heavy barge traffic.

Approximately 17,000 barges locked through the Lockport Lock and Dam and over 9,000 barges locked through the O'Brien Lock and Dam in 2006.

The United States Army Corps of
Engineers data indicates that 8,792 barges
traveled along the Calumet-Sag Channel in
2006. Attachment 7 presents barge statistics
for various waterways. In addition to this
barge traffic, there is a high volume of
associated commercial off-loading throughout

the CAWS.

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Finally industrial riparian land use is common along the CAWS, which is no surprise for a system designed for the conveyance of treated wastewater effluent and storm water and commercial navigation.

District Efforts to Protect and
Improve Water Quality in the Caws Since its
Creation: From the 1930s to the latter part
of the 19th century, the rapidly growing city
of Chicago was beleaguered with numerous
epidemics of waterborne diseases. During
that time, the City's mortality rate was
among the highest in the world.

This contributed to the creation of the District along with the desire to eliminate the nuisance of the odorous Chicago River and develop a navigation link with the Illinois River. Initially, the main role of the District was to protect Lake Michigan as the primary source of drinking water for the Chicago area. This was accomplished by building the channel from Chicago to Joliet and using Lake Michigan water to dilute the

sewage.

By the close of the District's canal building era in 1922, sewage treatment was already underway with the construction of the intercepting sewer system and sewage treatment plants. Construction of the Calumet, North Side and Stickney water reclamation plants was completed in the '20s through the 1940s.

Since the District's inception in 1889, there have been a number of improvements and advancements in the protection of water quality that the District has pioneered and introduced, not the least of which is the construction and operation of its seven water reclamation plants.

Consequently, there have been dramatic improvement in the water quality and the public health in the Chicago area.

The District's efforts to protect and improve the water quality of the CAWS since its creation are described in Attachment 8.

The District's water reclamation

plants are a well-engineered system that combines primary treatment, that is, settleable and floatable solids removal, and secondary treatment, that is, activated sludge and clarification, to achieve a high level of treatment with consistently good performance meeting all NPDED permit limits.

Furthermore, degradation and assimilation processes occur in the CAWS which help to reduce the remaining organic constituents in storm water and treated effluent without harm to freshwater aquatic life.

The District's treated wastewater has been demonstrated to have relatively low levels of pathogenic microorganisms.

Moreover, pathogenic microorganisms do not thrive well outside the human body and the freshwater's natural disinfection process is aided by exposure to indigenous bacteria and sunlight.

In addition to management of the reclamation plants, the District is also responsible for the completion and operation

of the Tunnel and Reservoir Plan, which I'll refer to as TARP. Construction of the first TARP tunnel began in 1975 and construction of all 109 miles of the tunnels was completed in March 2006.

One of three reservoirs, the O'Hare Chicago Underflow Plan Reservoir, has been completed and has been in operation since 1998.

Construction of the two remaining reservoirs is underway. The Thornton Reservoir is expected to be completed by 2014. Stage 1 of the McCook Reservoir is expected to be complete by 2015 and Stage 2 by 2024.

TARP has significantly reduced the number of combined sewer overflows to the CAWS and backflows to Lake Michigan. As of 2006, TARP cumulatively captured 885 billion gallons of combined sewage that would otherwise have discharged to the CAWS. All captured combined sewage was given complete secondary treatment.

Between 2002 through 2006, the

District was averaging 43 days of CSO discharges, less than half the number experienced prior to the tunnels being placed in operation in 1985.

It is expected that the completion of the TARP reservoirs will further reduce the frequency of combined sewer overflows to the waterways and lower the accompanying risks.

Furthermore, capital improvements for the District's three largest plants, which are nearly 80 years old, and investment for the construction of TARP have to be implemented in the next 20 years to maintain the high quality of the treated wastewater from the region and to protect the drinking water source. These capital improvement investments will cost billions of dollars to implement.

The District's leadership role is described by Blatchely, et al., in an article published in Water Environment Research in 2007: Leadership within the Metropolitan Water Reclamation District of Greater Chicago

has often challenged conventional thinking on topics relating to municipal wastewater treatment. In several cases, the approaches taken by the MWRDGC to solve wastewater treatment and water quality problems have resulted in important innovations that have subsequently been adopted by other municipalities.

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In addition, the 2003 report of
the Environmental Law & Policy Center attests
to the substantial improvement trends in
water quality since 1972. Furthermore, U.S.
EPA Region 5 published a State of the Waters
2002 Report, which stated that water quality
trends indicate a general improvement in
Illinois streams and rivers.

While the District's efforts have brought about substantial improvements in water quality, which now largely meets general use standards, there is a misconception that the waterways have become the equivalent of natural general use river systems and have the potential to support unlimited recreational and aquatic life uses.

However, the physical configuration and properties of the system, which was not designed to support recreation or aquatic life, are now the primary limitation to further use attainment in the system.

The District is proud of what it has accomplished over its 119-year history and is pleased that the CAWS that it created is now viewed as an asset and source of pride for the community.

However, we must caution that any serious attempt to assess the use potential of the system must look beyond current or anticipated future water quality and must realistically consider the substantial and widespread modifications to the existing physical configuration and properties of the system that would be necessary to actually enable recreation uses to safely flourish or life uses to significantly improve.

As has been our proud tradition, the District is prepared to take on new challenges to further improve our treatment

plant effluent quality and water quality in the CAWS if sound scientific and engineering studies demonstrate feasibility, significant benefit and economic reasonableness.

As it currently stands, we do not see that the IEPA's proposal has clearly demonstrated any of these important criteria. In order to assist the IEPA and the Board in completing the UAA study, the District has undertaken numerous landmark studies that will provide a sound basis for evaluating feasibility, benefit and economic reasonableness.

A list of these studies is included as Attachment 9. Some of the studies are complete and will be presented in testimony to follow. Others are underway and will be completed within the next two years.

I am confident that you will understand the significance of these studies and the implications of moving ahead with a rulemaking in the absence of their results as the following testimony is presented.

I thank you for the opportunity to

present this testimony and I am hopeful that we will proceed with the best interests of all the District's constituents in mind.

Mr. Lanyon. Before we go to questions from the IEPA, I want to revisit Exhibit 59 for just one second. Ms. Williams, while I'm not willing to challenge whether or not it was mailed, I will agree that we can agree for the record that the IEPA has not yet received it. Since it was mailed on Friday and today is Monday, it's pretty unlikely you got it by U.S. Mail unless U.S. Mail got a lot better this week.

With that, I note that my records show that the Natural Resources Defense Council did not pre-file questions for Mr. Lanyon.

MS. ALEXANDER: That's correct.

HEARING OFFICER TIPSORD: So we will proceed to IEPA.

MS. WILLIAMS: Before we start, I guess I would just like to ask the Hearing Officer, our questions primarily follow

1 Mr. Lanyon's testimony, there are a couple 2 that cross to very general aquatic life use questions, but he doesn't appear twice on the list, so I was assuming I would ask all of 5 these questions and get them done today, but 6 if -- if there's no objection from counsel? MR. ANDES: That's fine. In some cases, he may not be the person to answer the 9 question, but go ahead and ask him.

MS. WILLIAMS: Good morning,
Mr. Lanyon.

MR. LANYON: Good morning.

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MS. WILLIAMS: I will start with number one. You state on Page 3 of your testimony that of the 78 miles of the Chicago Area Waterway System, 57 of those miles are man-made and the other 21 have been deepened, straightened and/or widened to such an extent that they no longer resemble a natural river or channel.

Question A: Do you see a difference in the biological potential of the 57 miles of man-made channels versus 21 miles of altered channels? Why or why not?

	Page 39
1	MR. LANYON: No.
2	MS. WILLIAMS: Can you explain why or
3	why not or can you explain why not?
4	Sorry.
5	MR. LANYON: Because they're all part
6	of the same basic system of man-made or
7	significantly altered channels conveying a
8	large degree of urban drainage and treated
9	wastewater effluent.
10	MS. DEXTER: Can I ask a follow-up?
11	HEARING OFFICER TIPSORD: Sure.
12	MS. DEXTER: Mr. Lanyon
13	HEARING OFFICER TIPSORD: Can you
14	identify yourself for the record?
15	MS. DEXTER: Jessica Dexter from the
16	Environmental Law & Policy Center.
17	Are you an aquatic ecologist?
18	MR. LANYON: No.
19	MS. DEXTER: Are you a fisheries
20	biologist?
21	MR. LANYON: I beg your pardon?
22	MS. DEXTER: Are you a fisheries
23	biologist?
24	MR. LANYON: No.

	Page 40
1	MS. DEXTER: Thank you.
2	MS. WILLIAMS: Moving on to Question
3	B: Do you see a difference in the
4	recreational use potential between the
5	57 miles of man-made channels and 21 miles of
6	altered channels?
7	MR. LANYON: No.
8	MS. WILLIAMS: Why not?
9	MR. LANYON: Same reason as I stated
10	in the previous answer.
11	MS. WILLIAMS: Question C: In your
12	opinion, is the aquatic life and recreational
13	use potential of the Sanitary and Ship Canal
14	different from that of the South Branch
15	Chicago River, South Fork? Is your answer no
16	then I guess based upon your previous answer?
17	MR. LANYON: Well, I really didn't get
18	into this in my testimony and I believe other
19	District witnesses will do so.
20	MS. WILLIAMS: Can you tell us which
21	ones you think?
22	HEARING OFFICER TIPSORD: You need to
23	speak up, Deb. There's no way the people in
24	the back of the room

1 MS. WILLIAMS: Which witnesses would 2 be better to answer this question? MR. ANDES: Let me answer that. Ι 4 think that there are a large number of 5 witnesses who speak to the either aquatic 6 life or recreational use potential of those 7 water bodies. On recreational use we have at least Mr. Stuba and Mr. Dennison who'll talk 9 about recreational use. 10 And then others deal with it more 11 indirectly through risk assessment. 12 aquatic life, Mr. Mackey, Mr. Freedman, 13 Mr. Melching and other witnesses all speak to 14 aquatic life potentials. So these are issues 15 that are touched on by a broad list of later 16 witnesses. 17 MS. WILLIAMS: So, obviously, we'll come back to this if we need to. 18 19 MR. RAO: May I ask a follow-up? 20 HEARING OFFICER TIPSORD: Before you 21 do that, I would note that you only asked 22 half -- you only asked about the South Branch 23 and the South Fork. You stopped and didn't 24 ask about the remainder of the question.

		Page 42
	1	MS. WILLIAMS: Would the answer be the
	2	same for the Cal-Sag Channel, that other
	3	witnesses would be better
	4	MR. ANDES: Yes.
	5	HEARING OFFICER TIPSORD: Thank you.
	6	MR. RAO: Mr. Lanyon, just for the
	7	record, could you please explain the
	8	similarities between the man-made channels
	9	and the altered channels? How are they
	10	similar?
	11	MR. LANYON: Well, they're similar in
	12	that they're all very straight, they're all
	13	very deep and they have the same type of
	14	sediments and they're all contained within
	15	the rectangular the water is all contained
	16	within the rectangular or trapezoidal prism
	17	of the channel over all ranges of flows, that
	18	is, there is no over-bank areas.
	19	MR. RAO: And is the flow properties
	20	very similar in both the man-made and altered
	21	channels.
	22	MR. LANYON: Yes, they are.
	23	MR. RAO: Thank you.
	24	MR. ETTINGER: Excuse me, is it your
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1	testimony
2	HEARING OFFICER TIPSORD:
3	Mr. Ettigner, you need to identify yourself.
4	MR. ETTINGER: This is Albert
5	Ettinger. Is it your testimony that the
6	banks are functionally similar throughout the
7	entire Chicago Area Waterway System?
8	MR. LANYON: I'm not sure what you
9	mean by functionally similar, but the banks
10	do contain the water.
11	MR. ETTINGER: That's true. Are you
12	saying that the North Branch of the Chicago
13	River has the same sort of banks as the
14	Sanitary and Ship Canal?
15	MR. LANYON: Well, no, some are
16	sloping banks, some
17	MR. ETTINGER: Yeah, some are sloping
18	banks.
19	MR. LANYON: are vertical banks and
20	some are
21	THE COURT REPORTER: I can only get
22	one person at a time.
23	HEARING OFFICER TIPSORD:
24	Mr. Ettinger, you need to let him answer the

	Page 44
1	question. Go ahead, Mr. Lanyon.
2	MR. LANYON: Some are made out of
3	different materials.
4	MR. ETTINGER: Are there points in
5	which people can walk into the river on the
6	North Branch of the Chicago River?
7	MR. LANYON: I believe there are.
8	MR. ETTINGER: Is that true of the
9	Sanitary and Ship Canal?
10	MR. LANYON: Yes.
11	MS. WILLIAMS: On that, I'd also, I
12	guess, follow up. Do all the reaches of the
13	CAWS have commercial barge traffic occurring?
14	MR. LANYON: No, they don't.
15	MS. WILLIAMS: Do you know which ones
16	don't?
17	MR. LANYON: Generally, above Webster
18	Street on the North Branch of the Chicago
19	River you don't find commercial navigation.
20	MS. WILLIAMS: Is that all?
21	MR. LANYON: Well, I could say
22	above upstream of 35th Street on the
23	Bubbly Creek or the South Fork, but that's a
24	very short segment. That's about all.

		Page 45
	1	MS. MEYERS-GLEN: I actually have one
	2	follow-up on that. Stacy Meyers-Glen,
	3	Openlands. When you say that
	4	MR. LANYON: Wait a minute, who are
	5	you?
	6	MS. MEYERS-GLEN: Stacy Meyers-Glen of
	7	Openlands. Good morning. I was wondering
	8	whether or not you had mentioned that the
	9	flow is similar for the man-made channels as
	10	it would be to the altered channels. Are you
	11	saying that the flow in a waterway like
	12	Bubbly Creek is the same as like the North
	13	Branch of the Chicago River? Are you
	14	equating those two?
	15	MR. LANYON: In that the flow is
	16	controlled artificially controlled by
	17	various structures, yes.
	18	MS. MEYERS-GLEN: Don't those two
	19	bodies of water have very different flow
	20	rates?
	21	MR. LANYON: Did you say various flow
	22	rates?
	23	MS. MEYERS-GLEN: Different.
	24	MR. LANYON: Pardon?
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	Page 47
1	MS. DEXTER: Can I ask one follow-up?
2	Mr. Lanyon, do you know whether there is
3	barge traffic on the North Shore Channel?
4	MR. LANYON: Today? In current times?
5	MS. DEXTER: Yes.
6	MR. LANYON: I haven't seen a barge up
7	there in years.
8	MS. DEXTER: Okay. Thank you.
. 9	MS. WILLIAMS: Moving on to number
10	two, you describe the features of a natural
11	river on Page 5, Paragraph 2 of your
12	testimony and explain that the CAWS does not
13	have these natural features. How far
14	downstream, in your opinion, does this
15	condition extend?
16	MR. LANYON: Downstream to the O'Brien
17	Lock and Dam. I'm sorry, I misspoke.
18	Downstream to the Brandon Road Lock and Dam.
19	MS. WILLIAMS: I would like to kind of
20	combine
21	MR. LANYON: For the purpose of the
22	B-R-A-N-D-O-N.
23	THE COURT REPORTER: Thank you.
24	MS. WILLIAMS: Moving on to number
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Page 48 1 three, I'm going to combine three with five, 2 if that's okay. I think they're similar and it would flow more logically to combine those 4 two. 5 On Page 5 of your testimony you 6 state that 70 percent of the annual flow in 7 in this system is from the four MWRDGC sewage treatment plants and that dry weather, or 9 winter months, flow is virtually 100 percent 10 from these four plants and other sewage 11 treatment plants located on tributaries to 12 the system. 13 In addition, on Page 5 you 14 testified that the wet weather/summer season 15 flow in the CAWS is made up of 50 percent 16 sewage treatment plant effluent. Of the 17 other 50 percent of the CAWS flow in the 18 summer or the 30 percent averaged over the 19 year, what portion is made up of 20 discretionary diversions? 21 HEARING OFFICER TIPSORD: 22 Ms. Williams, if I may?

clarify?

23

24

MS. WILLIAMS: Do you want me to

1	HEARING OFFICER TIPSORD: No.
2	Actually, it might make more sense if we
3	first explain what the summer discretionary
4	diversions are before we
5	MS. WILLIAMS: That's fine.
6	HEARING OFFICER TIPSORD: do the
7	more specific question.
8	Could you explain what the summer
9	discretionary diversions from Lake
10	Michigan could you explain those to us,
11	what those are and how those come about.
12	MR. LANYON: Discretionary diversion
13	is an allocation granted to the District by
14	the Illinois Department of Natural Resources
15	Office I'm sorry, the Illinois Department
16	of Natural Resources Office of Water
17	Resources.
18	And the current allocation is an
19	average of 270 cubic feet per second. We use
20	that water for to maintain the water
21	quality conditions and we use it primarily
22	during the warm weather months, May through
23	October.
24	MS. WILLIAMS: So can you help us

Page 50 1 translate that 270 CFS to a percentage of the 2 flow? MR. ANDES: During the summer months. MR. LANYON: Well, okay, it varies 5 depending upon the month of the year. 6 during the summer months it varies from --7 well, if you consider the summer months to be June through September, it varies 9 approximately 14 percent in June and 10 24 percent in July through September. 11 And when I say percent, I'm referring to a percent of the total flow at 13 Lockport. 14 DR. GIRARD: Could I ask a quick 15 follow-up here that goes along with this? 16 Mr. Lanyon, when you talk about 17 water quality parameters that you're 18 maintaining with these diversions, which 19 water quality parameters do you manage for 20 and how do you prioritize which ones are 21 given a top priority in terms of maintaining? 22 MR. LANYON: We primarily use 23 dissolved oxygen as the target water quality

measurement to maintain with discretionary

24

		rage of
	1	diversion.
	2	DR. GIRARD: How about flow rates or
	3	temperature, are those managed?
	4	MR. LANYON: We don't regulate or we
	5	don't manipulate the flows for temperature.
	6	We do manipulate the flow in order to achieve
	7	the required navigational depth in the
	8	system.
	9	DR. GIRARD: Thank you.
1	.0	MS. WILLIAMS: So you've explained the
1	.1	percentages of flow in the summer months. Is
1	.2	it possible to translate that to an annual
1	.3	percentage? What part of the 30 percent
1	.4	annual flow that's not sewage treatment plant
1	.5	effluent is discretionary diversion?
1	.6	MR. LANYON: On an annual basis, it
1	.7	would be around 10 percent.
1	.8	MS. WILLIAMS: So would the remaining
1	.9	20 percent be wet weather?
2	:0	MR. LANYON: Yes, wet weather and
2	:1	tributary inflows.
. 2	22	MS. WILLIAMS: Do you know what the
2	23	breakdown is of wet weather versus tributary
2	4	inflows?
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1 MR. LANYON: Offhand, I don't have an 2 estimate of that.

MS. WILLIAMS: I'm going back up to the last part of question three. Can the entire discretionary diversion allotment be diverted in one week?

MR. LANYON: No way.

MS. WILLIAMS: How is that? Why not? Explain why not.

MR. LANYON: Well, there's several reasons. That would calculate to a flow of about over 14,000 cubic feet per second for that week.

And with the lake conditions being what they are, we can't divert that quantity by gravity through the three intake control structures.

That would exceed the design capacity of the Sanitary and Ship Canal and the high velocities resulting from such a flow rate would cause a major disruption to navigation and would be contrary to the rules by the Corps of Engineers for operating the system.

	Page 53
1	MS. WILLIAMS: Are there any
2	requirements in those rules that affect when
3	during the year an allotment can be taken?
4	MR. LANYON: There is not.
5	MS. WILLIAMS: And what happens to the
6	allotment in 2015?
. 7	MR. LANYON: Currently, it's scheduled
8	to be reduced to 101 cubic feet per second.
9	MS. WILLIAMS: Moving on to number
10	four
11	MR. ANDES: Excuse me, can I follow-up
12	on that for a moment?
13	HEARING OFFICER TIPSORD: Sure.
14	MR. ANDES: Mr. Lanyon, when the
15	District has to take its allotment down to
16	101 CFS, what do you expect the effects of
17	that will be in terms of dealing with water
18	quality issues?
19	MR. LANYON: Well, it will be a little
20	bit more difficult for us to meet dissolved
21	oxygen standards for the waterway system.
22	MR. ANDES: Why is that?
23	MR. LANYON: Well, the additional flow
24	during the summertime provides a resource of

oxygen that's in the lake water because that's at a relatively high dissolved oxygen concentration and the additional flow aids re-aeration as the water flows through our system.

MR. ANDES: Thank you.

MR. RAO: Can I ask a follow-up?

Mr. Lanyon, can you describe or explain to us
why the flow from the lake is being reduced
to 101 cubic feet per second by 2015?

MR. LANYON: Under the Illinois
Supreme Court Decree, all users of lake water
have to pursue means of conservation.

And I believe there was a 1996
memorandum of understanding with the state of
Illinois, the other Great Lakes states and
the U.S. Department of Justice which it
strengthened the requirements of water
conservation and basically said that with
TARP and other water quality improvements in
the Chicago area, the state of Illinois
should not be using discretionary diversion
for the purpose of water quality maintenance.

MR. RAO: Thank you.

MS. WILLIAMS: So it's your testimony,

Mr. Lanyon, that the construction of TARP was

taken into account when it was determined

that the discretionary diversion would go

down in 2015?

MR. LANYON: Yes.

MR. ANDES: Can I follow up?

DR. GIRARD: Well, I've just got a quick question. Mr. Lanyon, when you talk about diversion of Lake Michigan water, is this accomplished by gravity or do you have to actively pump the water depending on the level of the lake?

MR. LANYON: For the most part, it is accomplished by gravity through sluice gates at the O'Brien Lock and Dam and the Chicago River Controlling Works.

At the Wilmette Pumping Station we do have the option of pumping, however, currently our pumping capacity is compromised by the age of the equipment and we have to use either portable pumping equipment at Wilmette or, if the lake is high enough, we can divert by gravity.

1	MD ANDER Thed are fellow we
	MR. ANDES: I had one follow-up
2	question, Mr. Lanyon. The allotment
3	decreases in 2015. When will TARP be
4	complete at the current schedule?
5	MR. LANYON: Well, as I have
6	testified, we anticipate the Thornton
7	Reservoir, which would benefit the Little
8	Calumet River and the Calumet-Sag Channel, is
9	scheduled to be completed in 2014 and the
10	McCook Reservoir, stage one, is scheduled to
11	go online in 2015.
12	Stage two of McCook Reservoir will
13	not go online until 2024. It's my
14	understanding when the allocation order was
15	issued, it would generally plan that McCook
16	Reservoir would be completed by 2014.
17	MR. ANDES: Thank you.
18	MS. WILLIAMS: Question four, you
19	state in your testimony at the bottom of Page
20	4 that all outflow exits the CAWS at the
21	Lockport Powerhouse and Lock and Lockport
22	Controlling Works. Does water ever flow out
23	to Lake Michigan?
24	MR. LANYON: Rarely.

	Page 57
1	MS. WILLIAMS: When does that happen
2	or why does that happen?
3	MR. LANYON: Is that an either/or or
4	can I answer both?
5	MS. WILLIAMS: Go ahead.
6	MR. LANYON: The last occurrence was
7	August 23rd, 2007. A discharge at Wilmette
8	Pumping Station was necessary due to extreme
9	wet weather and it that's the only
10	occasion when we discharged to the lake
11	because of extreme wet weather.
12	MS. WILLIAMS: The only occasion in
13	2007 or the only
14	MR. LANYON: The only occasion at any
15	time that we discharged to the lake was
16	because of extreme wet weather.
17	MS. WILLIAMS: And about how
18	frequently does that occur?
19	MR. LANYON: Well, prior to August
20	of 2007 we discharged also at Wilmette in
21	August of 2002, so about once every
22	five years.
23	MS. WILLIAMS: We will skip now to
24	Page 6 I mean to question six. And on

30 years the District has done a lot in order

to dramatically improve water quality in the

23

24

Sure.

Let me read it.

MS. WILLIAMS:

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I mean, it would make more sense -- I can read the question as written. I was trying to follow off your answer.

The question as written was does the 42 percent take into account the impervious surfaces that are located in combined sewer areas where wet weather discharges do not reach the CAWS without treatment unless there are combined sewer overflows?

MR. LANYON: Well, the phenomena of runoff is rather complex. The 42 percent is simply a land cover statistic. It means that 42 percent of the land surface is covered with impervious surfaces that obstruct the otherwise natural infiltration of rain water and snow melt into the soil.

Water from impervious surfaces is expeditiously conveyed to waterways or treatment plants by sewers or other drainage structures. It does not percolate through the soil, does not nourish vegetative cover, is not cleansed by natural filtering and microbial action.

	Page 61
1	The impervious surfaces disrupt
2	these natural functions and have a
3	detrimental impact on streams.
4	MS. WILLIAMS: But you're not relying
5	on any data that characterizes the actual
6	impervious component of runoff to the CAWS in
7	your testimony?
8	MR. LANYON: I'm not relying on any
9	data. One would have to perform some
10	modeling of the system.
11	MS. WILLIAMS: You testify on Page 8
12	as follows: The District's treated
13	wastewater has been demonstrated to have
14	relatively low levels of pathogenic
15	microorganisms. What is the basis for this
16	statement?
17	HEARING OFFICER TIPSORD: For the
18	record, that's question seven?
19	MS. WILLIAMS: Yes.
20	MR. LANYON: I'm sorry?
21	HEARING OFFICER TIPSORD: It's
22	question number seven.
23	MR. LANYON: Well, non-disinfected
24	effluent ranges from ten to 200,000 colony

	Page 62
1	forming units per 100 ml. That's
2	significantly lower than raw influent sewage.
3	MS. WILLIAMS: So the basis for your
4	statement is that, generally, treated
5	effluent versus untreated effluent have lower
6	levels of pathogens?
7	MR. LANYON: Yes.
8	MR. ANDES: Follow-up on that.
9	Mr. Lanyon, can you tell us what the general
10	levels are in raw sewage?
11	MR. LANYON: They range from in the
12	millions say, one to 20 million.
13	MR. ANDES: Thank you.
14	HEARING OFFICER TIPSORD: And just for
15	the record, when you used the phrase ml,
16	that's
17	MR. LANYON: Ml is milliliters.
18	MS. WILLIAMS: So, untreated, one
19	million to 20 million.
20	MR. ANDES: That was raw sewage.
21	MS. WILLIAMS: Untreated raw sewage.
22	And when you stated treated effluent, I
23	believe you said 10 to 200,000. Did you
24	mean ten

	Page 63
1	MR. LANYON: Ten thousand to 200,000.
2	MS. WILLIAMS: Okay. So what are the
3	typical concentrations of pathogenic
4	organisms in the District's effluent?
5	MR. ANDES: Can I ask are you asking
6	about pathogenic indicators or both? Two
7	separate things.
8	MS. WILLIAMS: I would if he can
9	answer both, I would like to know both. But
10	I would let I would assume indicator would
11	be easier to answer.
12	MR. ANDES: Yeah.
13	MR. LANYON: Well, the numbers I cited
14	were for fecal coliform, which is an
15	indicator bacteria. I don't have data on the
16	pathogenics.
17	MS. WILLIAMS: So the numbers you gave
18	for a typical treated effluent, you're saying
19	that's the same as the numbers for the
20	District's treated effluent?
21	MR. LANYON: Yes. For the calumet,
22	North Side and Stickney water reclamation
23	plants.
24	MR. ANDES: To clarify, I don't think

1 Mr. Lanyon is trying to make a claim as to 2 everyone else's treat effluents. 3 speaking specifically about the District's treated effluents. 5 MS. WILLIAMS: Okay. I heard him say 6 typically treated effluent and I took that to 7 mean broader. But you aren't trying to 8 testify about other plants typically? 9 MR. LANYON: No, I'm not, just 10 District effluents at those three plants that 11 I mentioned. 12 So what is the basis MS. WILLIAMS: 13 for your statement then that these numbers 14 are relatively low? Relative to what? 15 MR. LANYON: Relative to untreated raw 16 sewage. 17

MS. WILLIAMS: Okay. Not relative to other treatment plants?

MR. LANYON: No.

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MR. ETTINGER: Let me just ask one question here just to get it. On disinfected plants, what would be your typical fecal levels coming out of the Kirie, Egan and your other plants?

		Page 65
	1	MR. LANYON: Hanover Park?
	2	MR. ETTINGER: Hanover Park.
,	3	MR. LANYON: I don't have those
	4	numbers handy. I don't know.
	5	MR. ETTINGER: Would they be under
	6	400?
	7	MR. LANYON: Non-disinfected?
	8	MR. ETTINGER: No, the disinfected
	9	plants.
	10	MR. LANYON: Disinfected, well, they'd
	11	be near zero.
	12	MR. ETTINGER: Thank you.
	13	MS. WILLIAMS: Moving on to question
	14	eight.
	15	MR. HARLEY: Can I ask a follow-up?
	16	HEARING OFFICER TIPSORD: Sure.
	17	MR. HARLEY: Keith Harley, Chicago
	18	Legal Clinic upon behalf the Southeast
	19	Environmental Task Force. Can you explain
	20	historically why it is that some District
	21	plants disinfect while others do not?
	22	MR. LANYON: Yes, I can. The three
	23	plants that are located in the northwest part
	24	of the county, that is the Egan, Hanover Park
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	rage 67
1	MR. HARLEY: Did you have to retrofit
2	disinfection equipment onto any one of those
3	facilities?
4	MR. LANYON: I don't believe so. I
5	believe the rule has been in effect since the
6	'70s when well, Egan went on line in 1975,
7	Kirie went on line in 1980 and the Hanover
8	Park plant we took over years ago and have
9	upgraded it many times. So whenever the rule
10	was in effect, we provided disinfection
11	according to the rules.
12	MR. HARLEY: Thank you.
13	MR. ANDES: I'd like to follow-up on
14	that.
15	HEARING OFFICER TIPSORD: Sure.
16	MR. ANDES: Mr. Lanyon, can you
17	compare the size of those three plants, the
18	size of the three plants at issue in this
19	rulemaking?
20	MR. LANYON: They're relatively small.
21	The Kirie Plant discharges about somewhere
22	between 30 and 50 million gallons per day.
23	The Egan Plant discharges about 25 million.
24	The Hanover Park Plant discharges about 12

	Tage 00
1	million gallons per day.
2	MR. ANDES: And the flow of North
3	Side, Calumet and Stickney.
4	MR. LANYON: Both the Calumet and the
5	North Side Plant discharge an average of 250
6	million gallons per day and the Stickney
7	Plant discharges 800 million gallons per day.
8	MR. ANDES: Thank you.
9	MR. RAO: Follow-up, Mr. Lanyon. Do
10	Egan, Hanover and Kirie Plants discharge to
11	the CAWS?
12	MR. LANYON: No. They discharge to
13	general use waters. The Kirie Plant
14	discharges to Willow Creek, the Egan Plant
15	discharges to Salt Creek and the Hanover Park
16	Plant discharges to the west branch of the
17	DuPage River.
18	MR. RAO: Thank you.
19	HEARING OFFICER TIPSORD: Mr. Harley.
20	MR. HARLEY: Just one follow-up. To
21	clarify, it was your testimony that the
22	reason that you disinfected those plants is
23	not because of the size the relative size
24	of those plants by comparison to their CAWS

1 MR. ANDES: I think that would be 2 particularly within the knowledge of the 3 Agency since it issued the permits. MR. SULSKI: Ask him if 400 sounds about right. MS. WILLIAMS: The question I'm 7 getting at, so there's no point of going around this, is it's correct, isn't it, that 8 your permit limit is higher than the near 10 zero you testified is the number coming out 11 of the plant, correct? 12 MR. LANYON: Yes. 13 MS. WILLIAMS: Can you explain why the 14 actual bacteria level in your discharge is 15 lower than the limit in the permit? 16 MR. LANYON: Well, controlling fecal 17 coliform in the effluent is very difficult. 18 Fecal coliform has wide variations. When 19 you're going to kill, you kill them all, 20 fecal coliform. 21 HEARING OFFICER TIPSORD: Mr. Harley. 22 MR. HARLEY: What type of treatment 23 technology are you using to kill the fecal 24 coliform at Egan, Hanover and Kirie?

MR. LANYON: At all three plants we're currently using chlorination/dechlorination.

MR. HARLEY: Thank you.

MR. LANYON: Using -- we use sodium hypochlorite as the inactivation agent and we use sodium bisulfite to remove the chlorine.

MR. HARLEY: Is that a common approach among publically-owned treatment works in the United States for treating for fecal coliform?

MR. LANYON: It is a common approach, although its popularity is decreasing.

MS. WILLIAMS: Number eight, in the second paragraph on Page 8 of your pre-filed testimony you make the following statement:

Moreover, the pathogenic microorganisms do not thrive well outside the human body and the fresh water's natural disinfection process is aided by exposure to indigenous bacteria sunlight. Are you suggesting the best way to deal with pathogens from the District's treatment plants is to disinfect the effluents in situ in water that experience human recreation?

	Page 12
1	MR. LANYON: May I ask
2	MR. ANDES: You're mischaracterizing
3	his testimony, but I'll let you answer.
4	MR. LANYON: Could I ask for a
5	clarification? What do you mean by disinfect
. 6	the effluents in situ?
7	MR. ANDES: That's not what he said.
8	MS. WILLIAMS: No, you're not, right?
9	You're not suggesting that they should be
10	disin that they should be treated?
11	MR. LANYON: That means disinfecting
12	it in the waterway. No, I'm not saying that.
13	MS. WILLIAMS: Moving on to number
14	nine, on Page 9 you explain that the District
15	is currently averaging 43 days per year of
16	combined sewer overflow discharges. How many
17	discharges or days per year of discharges
18	will be expected after the completion of the
19	Tunnel and Reservoir Project?
20	MR. LANYON: I don't have an exact
21	estimate of that. We hope it's very low.
22	HEARING OFFICER TIPSORD: Mr. Harley.
23	MR. HARLEY: Mr. Lanyon, you mentioned
24	that in permits for Egan, Hanover and Kirie

		Page 74
1		MR. HARLEY: I'm sorry, I should
2		reference the question in relation to CAWS
3		facilities.
4		MR. ANDES: Can you restate the
5		question then?
6-		MR. HARLEY: Yes. It's your testimony
7		that there were 43 CSO events that were
8		occurred in the CAWS; is that correct?
9		MR. LANYON: That's correct.
10		MR. ANDES: An average.
11		MR. HARLEY: On average. But we would
12		have approximately in a season during which
13		disinfection would be required, potentially
14		seven months, and so there would be many days
15		when you would still be discharging effluent
16		from your sewage treatment plants where they
17		would essentially be the sole source of
18		pathogens into the CAWS; is that correct?
19		MR. LANYON: No, that's not correct.
20		MR. HARLEY: Can you explain why not?
21		MR. LANYON: There's other sources
22	·	besides CSOs.
23		MR. HARLEY: Do you know the relative
24		proportion of total pathogen loading from

		Page 75
	1.	those other sources by comparison to your
	2	facilities?
	3	MR. LANYON: No, I don't know that.
	4	MR. ANDES: I'd like to follow-up. Is
	5	it also true, Mr. Lanyon, that the effects of
	6	CSO discharges can last beyond the day of the
	7	event?
	8	MR. LANYON: Yes. They can last
	9	several days.
	10	MR. ANDES: Thank you.
	11	MS. WILLIAMS: I would like to go back
	12	to your answer to question nine before I move
	13	on. You stated that you don't have an exact
	. 14	estimate, you hope it's very low.
	15	Now when we talked about
	16	discharges, I want to get a sense of very
	17	low. I know you said that the discharges to
	18	Lake Michigan were very rare and those were
	19	once every five years. Is that the type of
	20	timeline you're talking about with very low?
	21	Can you give us some
	22	MR. LANYON: Well, that would exceed
	23	my wildest hopes.
	24	MS. WILLIAMS: So every year will
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	Page 76
1	probably still have them?
2	MR. LANYON: One or two per year.
3	MS. WILLIAMS: Thank you.
4	MR. ANDES: I'd like to follow-up.
5	HEARING OFFICER TIPSORD: Before you
6	do; one or two CSOs per year after the
7	completion of TARP, correct? That's your
8	answer?
9	MR. LANYON: CSO events after, yes.
10	HEARING OFFICER TIPSORD: We had lost
11	track of what we were talking about, I think,
12	for purposes of the record.
13	MR. ANDES: The first question I have
14	to follow up is when we talk about a CSO
15	event, does that mean one discharge from one
16	pipe?
17	MR. LANYON: No, it doesn't. It's a
18	day in which there is combined sewer overflow
19	at one or more outfalls.
20	MR. ANDES: So that could be multiple
21	outflows on a given day?
22	MR. LANYON: Yes.
23	MR. ANDES: And how will the ultimate
24	number of overflows allowed in a given year

	rage //
1	be determined?
2	MR. LANYON: We'll still count them by
3	days.
4	MR. ANDES: But there's a process
5	am I right there's a process of developing a
6	long-term control plan subject to approval by
7	the Agencies?
8	MR. LANYON: I believe the Agency has
9	approved of our long term control plan.
10	We're building it out.
11	MR. ANDES: Has Illinois EPA or U.S.
12	EPA specified an allowed number of
13	dischargers at this point?
14	MR. LANYON: No.
15	MR. ANDES: So there's still some ways
16	to go in the process before that happens?
17	MR. LANYON: Yes.
18	MR. ANDES: Thank you.
19	HEARING OFFICER TIPSORD:
20	Ms. Williams.
21	MS. WILLIAMS: Can you explain what
22	you mean by there's some ways to go in the
23	process?
24	MR. LANYON: We have to complete the

	Page 78
1	construction of the reservoirs.
2	MS. WILLIAMS: And then what will
3	happen?
4	MR. LANYON: Well, the reservoirs will
5	provide additional storage capacity for
6	combined sewer overflow that would reduce the
7	number of overflow events.
8	MS. WILLIAMS: And will that be
9	incorporated into a permit at some point?
10	MR. LANYON: I'm sure the Agency will
11	do that.
12	MR. ANDES: I'd like to follow up once
13	more. Mr. Lanyon, are you saying that until
14	the TARP is completed, you don't really know
15	how many overflows there are going to be?
16	MR. LANYON: That's correct.
17	MS. WILLIAMS: Number ten, on Page 3
18	of Attachment 4 to your testimony it states
19	that the Calumet River extends upstream of
20	the O'Brien Lock and Dam to Lake Michigan.
21	However, since the Calumet River is directly
22	connected to Lake Michigan, it is not
23	considered part of the CAWS. Is it your
24	testimony that this reach should be left out

of this rulemaking? 2 MR. LANYON: No. 3 MS. WILLIAMS: You are just -- what was the purpose then of that statement? MR. LANYON: I was just pointing out 6 that that's not part of the controlled 7 waterway system that we control. 8 Number 11, on Page 5 of MS. WILLIAMS: Attachment 4 it states that most of the 10 discretionary diversions occur during the 11 summer except for the North Shore Channel 12 where some flow is scheduled throughout the 13 year for the NSC due to more sensitive water 14 quality conditions. Explain what is meant by 15 more sensitive water quality conditions? 16 The reach of the North MR. LANYON: 17 Shore Channel between the Wilmette Pumping 18 Station and the North Side water reclamation 19 plant outfall, approximately four miles in 20 length, is basically stagnant most of the 21 It only receives inflow from combined 22 sewer overflows and some storm water. 23 It is typically low in dissolved 24 oxygen because of those conditions. The

stagnant flow could give rise to odor -- an

odor potential, so we occasionally will

divert water at Wilmette to provide some flow

during the non-summer months.

MS. WILLIAMS: Number 12, is it accurate that there are no U.S. Geological Survey gauges to monitor enforcement of the discretionary diversion at the O'Brien Lock and Dam or Wilmette Pumping Stations?

MR. LANYON: No.

MS. WILLIAMS: So you didn't testify that due to a lack of funds there are no gauges operating there?

MR. LANYON: I don't recall testifying that there were no gauges due to a lack of funding.

MS. WILLIAMS: Okay. That's fine.

MR. ANDES: I think I can follow up.

Can you explain what the situation is as to

those gauges?

MR. LANYON: I believe the USGS has left the hardware in place and does collect data, however, the data is not analyzed and reduced to a record that they publish.

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1	MS. WILLIAMS: Does the District have
2	access to the data?
3	MR. LANYON: I'm sure, if we requested
4	it, we could have access.
5	MS. WILLIAMS: But you don't make it a
6	practice of getting the data and analyzing
7	it?
8	MR. LANYON: No.
. 9	MS. WILLIAMS: Number 13, on Page 10
10	of your testimony you state that the District
11	is prepared to take on new challenges to
12	further improve our treatment plant effluent
13	quality and water quality in the CAWS if
14	sound scientific and engineering studies
15	demonstrate feasibility, significant benefit
16	and economic reasonableness.
17	What would be necessary to
18	demonstrate feasibility of an improvement to
19	the District?
20	MR. LANYON: Well, that's a very
21	general question. Without specifics, I
22	really couldn't answer that.
23	MS. WILLIAMS: It's a general question
24	to ask you to explain your statement that
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	Page 82
1	MR. ANDES: If you want him to give a
2.	specific number, he can't do that. It's
3	going to have to be dealt with
4	MS. WILLIAMS: A number?
5	MR. ANDES: What exactly are you
6	looking for?
7	MS. WILLIAMS: I would like him to
8	explain what the District views as
9	feasibility. I didn't view feasibility to
10	involve numbers, but if that's what you meant
11	by that. Did you mean economics when you
12	said feasibility?
13.	MR. LANYON: That would include both
14	economic and technical feasibility.
15	MS. WILLIAMS: Okay. Do you believe
16	that the Agency's proposals are technically
17	feasible?
18	MR. LANYON: No.
19	MS. WILLIAMS: Why not?
20	MR. ANDES: We have other witnesses
21	who are going to deal with that issue.
22	MS. WILLIAMS: But, I mean, he said
23	the question was too general. I'd like him
24	to explain. If he's saying here that it's

not feasible, what's not feasible? I think 2 that's fair. 3 HEARING OFFICER TIPSORD: I think he -- he did make the statement. MR. LANYON: I did make the statement 5 6 that, you know, we feel that the proposal is 7 premature and not supported by good science and so forth. 8 And the other witnesses that will 10 testify for the District will bring out many of the factors that we would have to consider 11 12 in answering this question. 13 MS. WILLIAMS: But you're not trying 14 to say with this statement that the 15 technology doesn't exist to meet the Agency's 16 proposal, are you? 17 MR. LANYON: In some cases, we're not 18 sure that technology exists or is feasible. 19 MS. ALEXANDER: Just to be clear on 20 this --21 HEARING OFFICER TIPSORD: You need to identify yourself. 22 23 MS. ALEXANDER: I'm sorry. Ann 24 Alexander from the Natural Resources Defense

	Page 84
1	Council. Are you saying that the
2	chlorination and dechlorination technology
3	that's currently at use at Kirie, Hanover and
4	Egan as well as across the country would in
5	any way not be feasible purely from a
6	technical as opposed to an economic
7	standpoint to implement at the CAWS
8	wastewater treatment plants?
9	MR. LANYON: I believe that is a
10	feasible technology.
11	MS. ALEXANDER: Okay. And would other
12	disinfection technologies, including
13	ultraviolet, also be feasible in your view?
14	MR. LANYON: Technically feasible,
15	yes.
16	MR. ANDES: I'd like to follow-up.
17	Mr. Lanyon, is it true that the District is
18	assessing the technical challenges that would
19	be present in doing either kind of
20	disinfection at those three plants?
21	MR. LANYON: You're referring to the
22	Calumet, North Side
23	MR. ANDES: And Stickney, yes.
24	MR. LANYON: and Stickney plants?

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1	Yes, we are making further
2	engineering investigations of that. For the
3	other three plants, Hanover, Kirie and Egan,
4	we're actually testing out UV equipment to
5	determine what design parameters would be
6	necessary in converting the technology at
7	those three plants to ultraviolet radiation.
8	MS. WILLIAMS: So I guess on the same
9	line as Ms. Alexander's follow-up,
10	supplemental aeration as is currently being
11	used, are you testifying that's not
12	technically feasible?
13	MR. ANDES: Are you asking as to the
14	extent of and nature of supplemental aeration
15	that would meet the water quality standards?
16	MS. WILLIAMS: No.
17	MR. ANDES: Just the technology in
18	general and whether it's feasible generally?
19	MS. WILLIAMS: Yes.
20	MR. LANYON: Well, that is a question.
21	Some of the reaches of the CAWS have very
22	complex hydraulics and, you know, the
23	feasibility of supplemental aeration using
24	the technologies that we already have in

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plants, for

1 testify that they were infeasible, though. We're asking about his use of the term 3 feasibility. MR. LANYON: It would be --4 5 conceivably, it would be feasible to use UV disinfection technology at our three big plants. However, because of the size of this Я installation and it's never been done before, 9 there are serious technical questions that 10 have been to be addressed. 11 HEARING OFFICER TIPSORD: Ms. 12 Alexander. 13 MS. ALEXANDER: Just to follow up on 14 that, when you say it's never been done 15 before, you mean it's never been done before 16 at these three plants? 17 MR. LANYON: It's never been done at 18 this scale where you're putting in UV 19 disinfection at a plant that treats 250 20 million gallons per day or 800 million 21 gallons per day. 22 MS. ALEXANDER: Do you have any reason 23 to believe that it would not be feasible at 24 that scale?

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1	MR. LANYON: Nothing that I can think
2	of right now.
3	MS. WILLIAMS: Referring back to the
4	quote I read in question 13, you also testify
5	that you're prepared to take on new
6	challenges where there would be a significant
7	benefit. What would the District view as a
8	significant benefit of this rulemaking?
9	MR. LANYON: A significant benefit
10	would be achieving a standard or achieving a
11	use.
12	MR. HARLEY: May I ask a follow-up on
13	that?
14	HEARING OFFICER TIPSORD: Sure.
15	MR. HARLEY: Achieving a use or
16	maintaining a use?
17	MR. LANYON: Either.
18	MR. HARLEY: A recreational use?
19	MR. LANYON: Yes.
20	MR. HARLEY: The use of the waters by
21	the public for boating?
22	MR. LANYON: Yes.
23	MR. HARLEY: For fishing?
24	MR. LANYON: Yes.

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1	MR. HARLEY: Thank you.
2	MR. ANDES: Let me follow up on that.
3	So if we double-back all the way through that
4	question, I believe to make sure I
5	understand the answer, are we talking about
6	whether there is a significant benefit for
7	recreational use and whether the proposal
8	would result in a significant benefit for
9	recreational use, is that what you're talking
10	about?
11	MR. LANYON: Well, yes, but the whole
12	question is what is significant.
13	HEARING OFFICER TIPSORD:
14	Ms. Alexander.
15	MS. ALEXANDER: Mr. Lanyon, I assume
16	you're aware that there are other
17	municipalities in the nation that do
18	disinfect effluent in locations where there
19	are also CSO contributions to the water body;
20	is that correct?
21	There are places in the country
22	where they disinfect effluent coming out of a
23	wastewater treatment plant when there are
24	also CSOs flowing in the same water body,

1	correct?
2	MR. LANYON: I believe so.
3	MS. ALEXANDER: So is it your belief
4	that there's any benefit to that
5	disinfection, any significant benefit I
6	should say?
7	MR. LANYON: I seriously question
8	whether there is a benefit.
9	MS. ALEXANDER: Okay. So, in other
10	words, you're saying that all of the other
11	municipalities across the country, every
12	other major municipality and all the
13	municipalities in Illinois that are currently
14	disinfecting are spending a lot of money
15	without getting any significant benefit?
16	HEARING OFFICER TIPSORD: That's a
17	pretty broad question.
18	MS. ALEXANDER: But I think you're
19	making a fairly general statement about
20	significant benefit. Are you saying that
21	disinfection, whenever there are CSOs, is not
22	a significant benefit or are there
23	circumstances where it might be?
24	MR. LANYON: Disinfection

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1	MS. ALEXANDER: Disinfection in a
2	circumstance where there are CSOs flowing
3	into the same water body. Are you saying
4	that is never going to constitute a
5	significant benefit or create a significant
6	benefit or that there are circumstances where
7	it might?
8 8	MR. LANYON: I don't know if it would
9	or it wouldn't in that case without further
10	analysis.
11	MS. ALEXANDER: Okay.
12	HEARING OFFICER TIPSORD:
13	Ms. Williams.
14	MS. WILLIAMS: Do you have when you
15	talk about looking at whether the proposal or
16	a rule adopted by the Board would have
17	economic reasonableness, do you have a
18	
	specific methodology that you're looking at
19	specific methodology that you're looking at to determine economic reasonableness?
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	to determine economic reasonableness?
20	to determine economic reasonableness? MR. LANYON: No.
20	to determine economic reasonableness? MR. LANYON: No. MS. WILLIAMS: I think that covers all
20 21 22	to determine economic reasonableness? MR. LANYON: No. MS. WILLIAMS: I think that covers all my questions.

come back and start with the people.

MS. HEDMAN: This is Susan Hedman from the Office of the Attorney General on behalf of the People of the State of Illinois.

Madam Hearing Examiner, Mr. Andes and I have come to an agreement about deferring the questions that we had posed to Mr. Lanyon to the financial and economic witnesses that are being presented by the MWRD, Mr. Kunetz,

Mr. Mastracchio and Mr. Zenz.

HEARING OFFICER TIPSORD: Okay.

MS. HEDMAN: And then, if necessary, to call Mr. Lanyon at that time if they cannot cover all of the financial, budget and economic issues.

HEARING OFFICER TIPSORD: Okay.

MS. HEDMAN: In addition, our first question posed to Mr. Lanyon in a question we posed down the line to Mr. Kunetz are requests for documents. One is the District's budget book and the other is the master plans for the Stickney and the North Side and the Calumet plants. They're prepared to present these.

I would like your guidance as to how you might like these put in the record. They are very voluminous and we would like to put them on the record solely electronic. addition to which, for purposes of authentication it might be easier if the District were to put the documents on the How would you like to proceed? record.

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HEARING OFFICER TIPSORD: For purposes of the record, even if they're voluminous, we do need at least one hard copy. And the reason being is that -- well, you know what, give it to us electronically and if we have a problem on appeal, we'll deal with it then.

We are having some difficulties with the courts taking electronic copies. We've had to print out some stuff recently and so if it does become an issue if this rulemaking is appealed down the line, we'll work with the District at that point.

Electronically then is fine and CD is fine.

To clarify, there are two MR. ANDES: issues. One is the budget books, which are very voluminous, and we do not yet have

those. As those are online on the District's website, I guess we could print those out and burn them onto a -- we could probably burn those onto a disk and submit that.

As to the master plans, which are even more voluminous, we have burned the summaries of the master plans onto a disk and I wasn't sure if the Attorney General needed more than that. But if you want to review that and decide if there's anything further needed, that would be fine with me.

HEARING OFFICER TIPSORD: If your budget books are available online and there's no objection from the people, I'm willing to accept the link onto the web into the record. And if we need specifics out of the budget books, again, since the People asked for them, if we need specifics, we can always print specifics and enter those at exhibits.

But rather than put all of the voluminous material into the record and save some trees perhaps, if it's okay with the People, if we can get a link to the budget books. And then like I said, if we need

specifics from them, we can always print what we need specifically. But let's just do the link electronically and enter that into the record at the appropriate time.

MR. ANDES: We'll do that. And then I would also say I know that the Attorney

General is reserving the right to bring back

Mr. Lanyon and we'll reserve the right to

object depending on the circumstances at the time. But I think with all that, we're agreed.

MR. ETTINGER: Can I address that briefly? I don't want to force the District to have people here unnecessarily and I don't want to spend a lot of time asking questions of Mr. Lanyon that some other District witness is preparing to -- is prepared to answer.

It is, however, difficult for us reading and planning how you're going to do this. In this case in much of Mr. Lanyon's testimony he makes some broad policy statements, for example, which I don't want to spend a lot of time cross-examining if you

have a later witness who's going to justify or explain the broad policy statements.

We are, however, in a little bit of a trap here that I think all of us in this corner are struggling with in that if we don't ask questions about some of those statements now and it turns out that there isn't somebody later on to ask them of, we may have never been able to ask those questions.

So I'll just state now that I'm not going to be asking questions about some of the broader policy statements that

Mr. Lanyon made in the expectation that there will be later witnesses to address some of them, but we may have problems down the road if it turns out that my hopes are not realized.

MR. ANDES: I think your hopes will be realized. In every case I can think of those questions are addressed in other witness testimony, or if they are a directive of the witnesses, they would have the capability to answer them, so I don't think we'll have a

	Page 97
1	problem.
2	MR. ETTINGER: Thank you.
3	HEARING OFFICER TIPSORD: With that,
4	we'll come back and start with the ELPC and
5	we'll take about a ten-minute break. Thank
6	you.
7	(Whereupon, after a short
8	break was had, the
9	following proceedings
10	were held accordingly.)
11	HEARING OFFICER TIPSORD: And I stand
12	corrected. I believe we're going to start
13	with Openlands first and then ELPC. Are we
14	ready to proceed?
15	MS. MEYERS-GLEN: For the record I
16	believe you have my card my name is Stacy
17	Meyers-Glen with Openlands. If you can't
18	hear me for any reason, please let me know
19	that I need to speak up.
20	MR. JOHNSON: Speak up.
21	MS. MEYERS-GLEN: Great. Thank you.
22	I like that.
23	I initially was going to start on
24	one and two on pathogen levels, but the

I think, adequately touched that, so I'm

going to alter those two questions to really

4 hit on just a couple of points.

And I just wanted to clarify,

Mr. Lanyon, when you stated on Page 8 of your

7 testimony that the District's treated

8 wastewater has been demonstrated to have

9 relatively low levels of pathogenic

microorganisms, that is, compared to raw

sewage, correct?

MR. LANYON: Yes.

MS. MEYERS-GLEN: And it's still

relatively high to disinfect it effluent,

15 correct?

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MR. LANYON: Perhaps.

MS. MEYERS-GLEN: You testified the

levels were zero relatively from your other

19 plants?

MR. LANYON: Yes.

MS. MEYERS-GLEN: So I'm going to skip

then based on your statement that was it was

between 10,000 and upwards to 200,000 CFUs

per 100 milliliters. I'm going to skip those

		Page 99
	1	first two questions.
	2	Now you're familiar with the
	3	critique by Tim Wade of the US EPA of the
	4	District's interim risk assessment; is that
	5	correct?
	6	MR. LANYON: No.
	7	MS. MEYERS-GLEN: You're not?
	8	MR. ANDES: What document are you
	9	specifically referring to?
1	0	MS. MEYERS-GLEN: There was a letter
1	1	by Tim Wade in the United States
1	2	Environmental Protection Agency to the
1	3	District pointing out certain issues or
1	4	concerns that they had regarding the MWRD's
1	5	interim risk assessment. Are you familiar
1	6	with U.S. EPA's interaction with the District
1	7	on that issue?
1	8 .	MR. LANYON: I'm aware that we have
1	9	we had received comments. I believe we
2	0	addressed all the comments. Other witnesses
2	1	will testify to this matter.
2	2	HEARING OFFICER TIPSORD: For the
2	3	record, that was question number three.
2	4	MS. MEYERS-GLEN: Yes. Thank you.
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Question number four: Do you know of any 2 instances where people have come into direct contact with the water in the Chicago Area Waterway System in close proximity to your 5 outfalls at Stickney, Calumet and North Side? 6 MR. LANYON: No. 7 MS. MEYERS-GLEN: Can you say whether people come into indirect contact such as getting water on their hands paddling, jet 10 skiing, tubing or otherwise passing by these outfalls? 11 12 MR. LANYON: No. 13 MS. MEYERS-GLEN: So it's possible? 14 Beg your pardon? MR. LANYON: 15 MS. MEYERS-GLEN: It's possible then?

MR. LANYON: Possible, yes.

MS. MEYERS-GLEN: Are you aware that the Dammrich Rowing Center in Skokie, that's otherwise known as the Oakton Street launch site, runs canoes and kayaks approximately one-half mile upstream from the District's North Side wastewater treatment plant?

MR. LANYON: Yes.

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MS. MEYERS-GLEN: And do you know

	Page 102
1	MS. MEYERS-GLEN: The North Shore
2	Channel, I apologize, near your North Side
3	Plant.
4	MR. LANYON: Do they paddle past the
5	outfall?
6	MS. MEYERS-GLEN: I think
7	MR. LANYON: Possible. I don't know
8	that they do, but
9	MS. MEYERS-GLEN: Well, for
10	recreational users that would paddle or crew
11	as there are crew teams in that area, on the
12	North Shore Channel by your plant, near the
13	plant, that location even a half mile up or
14	down, that's an effluent dominated waterway,
15	correct?
16	MR. LANYON: Well, it would be correct
17	to say that downstream of the outfall it is
18	an effluent dominated water.
19	MS. MEYERS-GLEN: Isn't there
20	MR. LANYON: Our effluents don't
21	normally flow upstream.
22	MS. MEYERS-GLEN: Isn't there
23	significant backflow, though, from the North
24	Side Plant?

	Page 103
1	MR. LANYON: What do you mean by a
2	backflow?
3	MS. MEYERS-GLEN: There is on
4	October 31st were you present at the MWRD
5	study session on water quality standards?
6	MR. LANYON: When?
7	MS. MEYERS-GLEN: October 31st of
8	2007.
9	MR. LANYON: Yes.
10	MS. MEYERS-GLEN: Do you remember
11	Samuel Dorevitch talking at that study
12	session?
13	MR. LANYON: Yes.
14	MS. MEYERS-GLEN: Do you recall when
15	he said that there was a significant backflow
16	from the North Side Plant?
17	MR. ANDES: Are we introducing a
18	statement into evidence here
19	MS. MEYERS-GLEN: I certainly can.
20	MR. ANDES: because I don't see it?
21	MR. LANYON: I don't recall him making
22	such a statement, however, it is conceivable
23	that we have a density current from the
24	outfall in the upstream direction.

		Page 104
	1	MS. MEYERS-GLEN: That's sufficient.
	2	I'm not going to introduce it. What is a
	3	density current?
	4	MR. LANYON: I beg your pardon?
	5	MS. MEYERS-GLEN: Can you define what
	6	a density current is?
	7	MR. LANYON: Yes, I can.
	8	MS. MEYERS-GLEN: Please go ahead.
	9	MR. LANYON: A density current is one
	10	where in a booming body of water such as a
	11	river there is a heavier current flowing
	12	upstream on the bottom of the river.
	13	And we have found that it occurs
	14	in the Chicago River east of the junction
	15	with the North and South Branches. And I
	16	suspect it occurs also at other locations in
	17	our system such as near our outfalls of the
	18	North Side water reclamation plant and the
	19	Calumet water reclamation plant.
	20	MS. MEYERS-GLEN: And that would
	21	account for them as well, what would
	22	otherwise be termed as like a backflow?
	23	MR. LANYON: Yes. I wouldn't call it
_	24	a backflow myself.
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1	MR. HARLEY: May I ask a follow-up?
2	HEARING OFFICER TIPSORD: Yes,
3	Mr. Harley.
4	MR. HARLEY: In terms of the outfall
5	locations themselves, are there any
6	engineered barriers that would prevent people
7	who were in boats from going directly past
8	the point at which you're discharging?
9	MR. LANYON: I'm sorry, what do you
10	mean by engineered barrier?
11	MR. HARLEY: Are there any walls that
12	would prevent people from actually going
13	directly past the point at which you are
14	discharging effluent from the Calumet the
15	Stickney or the North Side plants?
16	MR. LANYON: No. Such a wall may pose
17	an obstruction to navigation and wouldn't be
18	allowed by the Corps of Engineers.
19	MR. HARLEY: Thank you.
20	MS. MEYERS-GLEN: Question number
21	nine: Does the Chicago Park District have a
22	launch site for paddlers at River Park near
23	Foster Road downstream of the North Side
24	wastewater treatment plant?

	Page 106
1	MR. LANYON: Yes.
2	MS. MEYERS-GLEN: And that location is
3	also heavily used as a fishing spot?
4	MR. LANYON: It's used. I'm not sure
5	what you mean by heavily used.
6	MS. MEYERS-GLEN: There are a lot of
7	people fishing there, correct, routinely?
8	MR. LANYON: That might be more
9	precise.
10	MS. MEYERS-GLEN: Number ten: Are you
11	familiar with the Chicago Park District boat
12	launch and two kayak rental locations at
13	Clark Park near Addison which are also
14	downstream of the North Side wastewater
15	treatment plant?
16	MR. LANYON: Yes.
17	MS. MEYERS-GLEN: And do people
18	frequently kayak and canoe north from the
19	Clark Park boat launch on the North Branch of
20	the Chicago River?
21	MR. LANYON: On occasion they do.
22	Frequently, I'm not sure what you're
23	referring to as frequently.
24	MS. MEYERS-GLEN: Well, do people

	Page 108
1	go between those two boat launches.
2	MR. LANYON: We were not involved in
3	helping
4	MR. ANDES: I'm sorry, first, the
5	question was can you restate that
6	question?
7	MS. MEYERS-GLEN: Sure. People kayak
8	often from the Clark Park boat launch to the
9	River Park boat launch, correct, upstream?
10	MR. LANYON: I don't know.
11	MS. MEYERS-GLEN: And how is the
12	District involved this is question number
13	12 in helping the Chicago Park District
14	establish the River Park and Clark Park
15	launch sites?
16	MR. LANYON: Well, we leased property
17	to them.
18	MS. MEYERS-GLEN: In fact, didn't the
19	District grant easements to protect this use
20	on those properties?
21	MR. LANYON: I'm sorry?
22	MS. MEYERS-GLEN: Didn't the District
23	actually grant easements on those two
24	properties to protect that use, establishing

	Page 109
1	it as a boat launch for recreational use?
2	MR. LANYON: I don't know if the
3	agreement involved an easement or not.
4	HEARING OFFICER TIPSORD: Mr. Harley.
5	MR. HARLEY: Are you familiar with
6	other District properties that are being
7	leased to units of local government that are
8	being used now for boat launches?
9	MR. LANYON: Yes, generally familiar.
10	MR. HARLEY: Could you identify what
11	some of those might be?
12	MR. LANYON: Well, I could identify
13	what some of those are. For instance, the
14	Alsip boat launch on the Calumet-Sag Channel.
15	The Worth boat launch on the or the Worth
16	Park District on the Calumet-Sag Channel.
17	There's the Summit boat launch on
18	the Sanitary and Ship Canal, Village of
19	Summit. There's the two that were mentioned
20	in the previous questions on the North
21	Branch. There may be some others, but I
22	can't remember them all.
23	MR. HARLEY: And so that the record is
24	clear, these are District-owned properties

	Page 110
. 1	that are being leased to units of local
2	government which are then using them so that
3	the public can have access to the Chicago
4	Area Waterways?
5	MR. LANYON: Yes, that's correct.
6	MR. HARLEY: Thank you.
7	MS. FRISBIE: Margaret Frisbie with
8	Friends of the Chicago River. Do you know
9	can you differentiate between boat launches
10	that are motorized boats and paddle craft?
11	MR. ANDES: Does he have personal
12	knowledge?
13	MS. FRISBIE: (Nodding.)
14	MR. LANYON: Well, I don't know.
15	That's if a person comes to a launch, they
16	can accommodate both types. I don't know
17	whether you call it both.
18	MS. FRISBIE: Okay.
19	MR. LANYON: Either or.
20	MS. MEYERS-GLEN: On question 13 on
21	Page 3 of your testimony you state that the
22	other 21 miles of the CAWS we can put that
23	in a there for reference for the record
24	have been deepened, straightened and/or

widened to the extent that they -- and this
is what I wanted to pay particular attention
to -- no longer resemble a natural river
channel. Your testimony includes
characteristics of a natural river system
that you state are not attributable to the
typical Chicago Area Waterways.

I'm going to defer my first question about characteristics to the ELPC because they have an identical question, so I'm just going to go to the second one.

Are you stating that there are no reaches in Chicago Area Waterways with the following characteristics, and the first is gradually sloping banks?

MR. ANDES: To clarify, what do we mean by reaches?

MS. MEYERS-GLEN: There are 17 reaches, I believe, that the IEPA has identified in this rulemaking, a multitude of which are on the CAWS.

For the stretches that have been identified in the Illinois EPA's proposal that pertain to the CAWS, I'm assuming that

- that is what Attachment 5 of the District's

 testimony for Mr. Lanyon pertains to; is that

 correct?
- The nice exhibit that you put up

 that had the characteristics for a man-made

 and a typical natural waterway, that

 pertained to the stretches of the CAWS in

 this rulemaking, correct?
 - MR. ANDES: I wasn't sure how you were defining reaches here.
- MS. MEYERS-GLEN: Sure. That is what
 I am asking about in this series of
 questions.
- MR. ANDES: Okay.

9

10

21

22

23

24

MS. MEYERS-GLEN: And as far as your
testimony when you say that there are no
reaches of the CAWS, which is how you defined
it, with the following characteristics, you
first say that there is a distinction of
gradually sloping banks.

Are you testifying that there are no reaches of the CAWS that -- the 21 miles of the CAWS no longer resemble a natural river channel in that there are no reaches of

the CAWS that have gradually sloping banks;

is that what you're testifying to?

MR. LANYON: Yes.

MS. MEYERS-GLEN: And I'd like to introduce -- Mr. Andes, did you receive our Attachment number 1 to our pre-filed questions for Mr. Lanyon?

MR. ANDES: I did.

MR. LANYON: All the pretty pictures.

MS. MEYERS-GLEN: Yes, all the nice, lovely, colorful pictures.

MR. ANDES: Well, let me clarify to that. I think this may cut to the chase. I think the question here is are you asking him is there any area along the CAWS that has these characteristics or are you saying are there particular reaches that have these characteristics along their entire stretch?

If you're asking are there any segments of the CAWS that -- any portion of the CAWS that has these characteristics, I think that's a separate set of questions than saying are there reaches that have these all along them.

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1	MS. MEYERS-GLEN: Mr. Andes, my
2	question to Mr. Lanyon was whether or not his
3	statement was in his testimony that the other
4	21 miles of CAWS have been deepened,
5	straightened and/or widened to the extent
6	that they no longer resemble a natural river
7	channel?
8	There was no exception to that in
9	his testimony and so what I'm asking him is
10	that with that with that statement, does
11	that mean that there are no gradually sloping
12	banks along the CAWS?
13	HEARING OFFICER TIPSORD: Anywhere
14	along the CAWS?
15	MS. MEYERS-GLEN: Anywhere along the
16	CAWS, that being one of the attributes that
17	you apply to a natural waterway in
18	Attachment 5?
19	MR. ANDES: So the question is are
20	there any areas along the CAWS that have
21	these characteristics?
22	MS. MEYERS-GLEN: That's correct.
23	MR. LANYON: There are locations where
24	you will find a more gradually sloping bank,

	-
1	attachments to your questions
2	MS. MEYERS-GLEN: Yes.
3	HEARING OFFICER TIPSORD: stapled
4	together?
5	If there's no objection, again,
6	simply for ease of the record, I'm going to
7	mark these as Exhibit 61.
8	Seeing none, they're marked as
9	Exhibit 61.
10	MS. MEYERS-GLEN: Also, they are
11	online, available on the internet in color.
12	Those attachments should be available to
13	everybody.
14	HEARING OFFICER TIPSORD: And I do
15	have another copy that we don't need up here
16	if anybody does need it.
17	MS. MEYERS-GLEN: Actually, maybe to
18	Mr. Andes, if we could get a color copy to
19	him.
20	MR. ANDES: We're fine, really. Thank
21	you.
22	MS. WILLIAMS: Can I ask the Hearing
23	Officer an exhibit question really quick?
24	HEARING OFFICER TIPSORD: Yes.

Page 120 MR. LANYON: No, I don't believe it 2 is. MS. MEYERS-GLEN: No? MR. LANYON: I believe this photograph 5 was taken from the North Shore Channel 6 probably from Lincoln Street, Maple Avenue or 7 Emerson Street bridges. Those banks are steep, earthen slopes. 9 MS. MEYERS-GLEN: They are? 10 MR. LANYON: Heavily covered with 11 trees, as you can see, very pretty looking, 12 but nevertheless the banks are steep. 13 they're often fenced because they're leased 14 to the local park district or the city or 15 whatever municipality we're flowing through 16 here. 17 MS. WILLIAMS: Can I ask a follow-up 18 to that? When you lease the property to the 19 park district --20 MR. LANYON: I beg your pardon? 21 MS. WILLIAMS: When you lease these 22 properties for purposes of a boat launch, do 23 the leases contain any restrictions about the

type of boats that can be launched?

photograph that you see, if you flip the page

MS. MEYERS-GLEN: And you can also see

appears to be very rocky, however.

23

of the Little Calumet River.

	Page 124
1	MR. LANYON: Yes.
2	MS. MEYERS-GLEN: And you're familiar
3	with this location, as well, between the Lake
4	Calumet Gun Club and Beaubien Woods, their
5	boat launch there?
6	MR. LANYON: Well, I'm not sure where
7	the Lake Calumet Gun Club is. I do know
. 8	where the Beaubien Woods boat launch is.
9	MS. MEYERS-GLEN: And isn't this
10	area aren't there gradually sloping
11	shorelines in this area?
12	MR. LANYON: In locations, yes.
13	HEARING OFFICER TIPSORD: Mr. Harley,
14	you have a follow-up?
15	MR. HARLEY: You've testified that
16	you're familiar with the Beaubien Woods boat
17	launch?
18	MR. LANYON: Yes.
19	MR. HARLEY: Can you describe to the
20	Board who owns and operates that boat launch?
21	MR. LANYON: I believe it is the Cook
22	County Forest Preserve District.
23	MR. HARLEY: And can you describe the
24	physical characteristics of that boat launch?

	Page 125
1	MR. LANYON: They're concrete pads
2	sloping into the water.
3	MR. HARLEY: And are those open for
4	any member of the public to launch any type
5	of craft?
6	MR. LANYON: I believe so. I'm not
7	familiar with the Forest Preserve District
8	Regulations regarding that site.
9	MR. HARLEY: Thank you.
10	MS. MEYERS-GLEN: I'm going to try to
11	get through Attachment 1 a little quicker.
12	The next photograph, we have the
13	Calumet River near Torrence Avenue Bridge;
14	are you familiar with that location, along
15	the Calumet River near the Torrence Avenue
16	Bridge?
17	MR. LANYON: I can't say that I'm
18	familiar with it. I know where it's located,
19	but
20	MS. MEYERS-GLEN: In this photograph
21	do you see what kind of a slope do you
22	see?
23	MR. LANYON: Well, I see a gradual
24	slope, a lot of rocks along here and several

	Page 126
1	people appear to be fishing.
2	MS. MEYERS-GLEN: Do you see rocks
3	leading into the water or is that basically
4	just soil?
5	MR. LANYON: I'm sorry?
6	MS. MEYERS-GLEN: You don't see rocks,
7	though, leading into the water, it's just
8	basically a nice, gradual
9	MR. LANYON: I see rocks on the
10	shoreline. I don't know if they're leading
11	into the water or not.
12	MS. MEYERS-GLEN: Right. It just
13	seems like a nice, gradual slope where the
14	water meets the shoreline, right?
15	MR. ANDES: Are you stating answer
16	the question. Is it a nice, gradual slope?
17	MR. LANYON: I don't know if it's nice
18	or not, but it's gradual.
19	MS. MEYERS-GLEN: And there are people
20	fishing in that photograph?
21	MR. LANYON: Yes.
22	MS. MEYERS-GLEN: On the two beneath
23	it that are actually courtesy of Chicago
24	River Canoe & Kayak, you're familiar you said

be able to bring this kind of activity to

MS. MEYERS-GLEN: And you help them to

23

1	this location?
2	MR. ANDES: What do you mean help?
3	MR. LANYON: We provide no financial
4	support.
5	MS. MEYERS-GLEN: But you're helping
6	in order for this boat launch to be at that
7	location? You're leasing the property so
8	that that boat launch exists, correct?
9	MR. LANYON: I've testified that we
10	lease the property to the Park District.
11	MS. MEYERS-GLEN: Correct. For this
12	purpose, right?
13	MR. LANYON: No.
14	HEARING OFFICER TIPSORD: If I may,
15	Mr. Lanyon? What you're saying is the
16	District leases the property to the Park
17	District, but you do not specify in that
18	lease what they do with that property once
19	it's leased, correct?
20	MR. LANYON: That is correct.
21	MS. MEYERS-GLEN: And you're familiar,
22	though, from the Park District that this is
23	going to be used for a boat launch; is that
24	correct?

1 MR. ANDES: At what point in time he was aware? MS. MEYERS-GLEN: Prior to when the 3 4 lease was signed, is that correct, you're 5 aware that the Chicago Park District is going to be using the property as a boat launch, 7 that there are plans for such, that that is R how the property is going to be used; is that 9 correct? 10 MR. ANDES: Are we talking about a 11 specific boat launch? 12 MS. MEYERS-GLEN: Sure. How about 13 Clark Park boat launch. You were aware that 14 that is how the Chicago Park District is 15 going to use this property, correct? 16 MR. LANYON: Well, I was not involved 17 in these discussions or transactions. 18 can't say if the District was aware or not. 19 But as a general statement, the 20 District is not opposed to entities leasing 21 our property for these purposes. 22 obvious because so much of that has been 23 done. We're not trying to restrict access to 24 the waterways.

like plants?

likely aquatic vegetation, correct? It looks

23

		Page 132
	1	MR. LANYON: I don't know.
	2	MR. ANDES: Can I ask what the
	3	relevance of that is?
	4	MS. MEYERS-GLEN: Yes. He states that
	5	there is limited aquatic vegetation and that
	6	that is
	7	MR. ANDES: Did that contradict his
	8	statement?
	9	MR. LANYON: May I add that on Labor
	10	Day last week I was on my bicycle, I stopped
	11	at Clark Park, I didn't see anything sticking
-	12	out of the water at the Clark Park
-	13	MS. MEYERS-GLEN: At that time?
	14	MR. LANYON: boat launch that
	15	looked like what you see in this photograph.
	16	MS. MEYERS-GLEN: So you just were at
	17	Clark Park boat launch, correct?
	18	MR. LANYON: Beg your pardon?
	19	MS. MEYERS-GLEN: You just were at
	20	Clark Park boat launch?
	21	MR. LANYON: On Labor Day.
	22	MS. MEYERS-GLEN: Okay. And so this
	23	photograph, does that look like Clark Park
	24	boat launch to you?
١		

MR. LANYON: I can't tell. I don't
know what the bank -- I presume this was
taken from the launch looking out across the
river. I can't -- the other side of the
river is forested like this is, but if this
is -- I can't tell if there's any marks of
distinction saying that this is at that
location.

MS. MEYERS-GLEN: And then the last picture is fishing along the North Branch of the Chicago River at River Park. Are you familiar with River Park?

MR. LANYON: Yes.

MS. MEYERS-GLEN: And can you explain the shoreline in this picture? Is it gradual?

MR. LANYON: Well, it's rocky and it appears to be shallow for some distance out. If this were taken from the west banks of the river just downstream from the point where the North Branch tributary flows over the North Branch dam into the channelized portion of the System, yes, there is a large shallow area there, probably the sediments coming

	Page 134
1	over the dam have settled out in that area.
2	MS. MEYERS-GLEN: So that's nice and
3	gradual?
4	MR. LANYON: Yes. This is one of
5	those rare locations where we have a gradual
6	slope under water.
7	MS. MEYERS-GLEN: And the second
8	characteristic that you stated was typical of
9	a natural system that wasn't typical for the
10	CAWS is the vegetative cover along the river
11	banks. And I'd like to draw your attention
12	to Exhibit 2 or Attachment 2, sorry, for
13	Openlands.
14	And, again, I'd like to start with
15	this wonderful photograph from Our Goal is
16	Clear. Are you familiar with this
17	photograph, as well, from the District's
18	publication from 2007?
19	MR. LANYON: Yes.
20	MS. MEYERS-GLEN: In fact, your name
21	is on here, I believe, above the further
22	information?
23	MR. LANYON: I guess.
24	MS. MEYERS-GLEN: And where is this

	Page 135
1	photograph taken?
2	MR. LANYON: I suspect it was on the
3	North Shore Channel, but I have no definite
4	knowledge of that.
5	MS. MEYERS-GLEN: Would it surprise
6	you that your office told me that it was the
7	North Branch of the Chicago River?
8	MR. LANYON: Could have been.
9	Anywhere north of roughly Addison Street, the
10	banks are forested like this.
11	MS. MEYERS-GLEN: Okay. So along the
12	North Shore Channel as well as the North
13	Branch of the Chicago River you do get a lot
14	of this nice tree canopy over the waterway,
15	correct?
16	MR. LANYON: Yes.
17	MS. MEYERS-GLEN: And second
18	photograph you see foliage along what's the
19	Chicago Sanitary and Ship Canal upstream of
20	MWRD monitoring station number ten. Are you
21	familiar with that area? That's the aeration
22	station west or southwest of your sewage
23	treatment works?
24	MR. LANYON: Generally familiar.

1 MS. MEYERS-GLEN: Okay. And with that general familiarity, are you familiar with 3 areas that have foliage like this along the 4 CSSC or Chicago Sanitary and Ship Canal? 5 MR. LANYON: Well, at Fay's Point is where the Little Calumet River tributary flows into the channelized portion of the 8 waterway, and like the North Branch, you 9 know, you have a wider area in the river, you 10 have shallower depths at that particular 11 location. 12 MS. MEYERS-GLEN: This is along the 13 CSSC, not Cal-Sag. 14 HEARING OFFICER TIPSORD: I think what 15 happened is you skipped pictures. The way 16 they're put together is you have the picture 17 of the egret and you -- she's referring to 18 the next page of pictures. 19 MS. MEYERS-GLEN: I did. 20 HEARING OFFICER TIPSORD: He's 21 answering questions regarding the egrets and 22 you're looking at the next page. 23 MS. MEYERS-GLEN: You're absolutely

I apologize. I forgot about our

right.

	rage 138
1	MR. LANYON: Yes.
2	MS. MEYERS-GLEN: Okay. And that is
3	east of the confluence of the Little Calumet
4	River. Are you familiar with that area near
5	Fay's Point Marina?
6	MR. LANYON: Yes.
7	MS. MEYERS-GLEN: And this is
8	relatively what it looks like at that
9	location; is that correct?
10	MR. LANYON: That's right.
11	MS. MEYERS-GLEN: A lot of foliage?
12	MR. LANYON: Yes.
13	MS. MEYERS-GLEN: And water foul like
14	this are not uncommon; is that correct?
15	MR. LANYON: Not uncommon for the
 16	MS. MEYERS-GLEN: For this area.
17	MR. LANYON: I think that we've seen
18	them at other locations, also.
19	MS. MEYERS-GLEN: And this egret is
20	standing out in the waterway; is that
21	correct?
22	MR. LANYON: That's what egrets do.
23	MS. MEYERS-GLEN: That's correct. So
24	it must not be that deep at that location; is

·	Page 139
1	that correct?
2	MR. LANYON: How long a leg does the
3	egret have?
4	MS. MEYERS-GLEN: It's pretty shallow,
5	right?
6	MR. LANYON: A foot or so perhaps.
7	MS. MEYERS-GLEN: Right. And there is
8	a lot of vegetation along the waterway?
9	MR. LANYON: Well, you see a lot of
10	vegetation above the water line along the
11	waterways.
12	MS. MEYERS-GLEN: That's correct. Now
13	in the picture right beneath, this is also
14	along
15	HEARING OFFICER TIPSORD: Excuse me,
16	Mr. Harley has a follow-up.
17	MR. HARLEY: This refers this
18	pictures refers to Fay's Point Marina and you
19	testified that you're familiar with the
20	marina?
21	MR. LANYON: Generally familiar.
22	MR. HARLEY: Can you describe Fay's
23	Point Marina to the Board?
24	MR. LANYON: Well, Fay's Point is a

	Page 140
1	development at the point where the Little
2	Calumet River flows into the channelized
3	portion of the system. It's on the south
4	bank of the Calumet-Sag Channel and south of
5	the Fay's Point Development is where the
6	Little Calumet River flows into the
7	generalized portion of the system.
8	MR. HARLEY: Is it correct to say that
9	Fay's Point Marina is a housing development
10	that includes a marina component?
11	MR. LANYON: I believe that's true.
12	MR. HARLEY: And this is an economic
13	development that occurred in Blue Island,
14	Illinois; is that correct?
15	MR. LANYON: Yes.
16	MR. HARLEY: And this economic
17	development occurred, this mixed housing
18	marina community occurred within the past
19	five years?
20	MR. LANYON: I believe it's still
21	under construction.
22 [.]	MR. HARLEY: Thank you.
23	MR. ANDES: I'd like to follow-up.
24	Mr. Lanyon, the various photos concerning
l	

- vegetative cover above the waterline, can you 1 2 tell me what that says about conditions below the waterline? MR. LANYON: Very little. 5 conditions below the waterline -- and this is a water quality rulemaking -- are what's important in this rulemaking. 8 And just looking at the vegetation 9 on the bank doesn't tell you what the benthos is like below the waterline. 10 11 THE COURT REPORTER: Benthos? 12 MR. LANYON: Benthos, B-E-N-T-H-O-S. 13 HEARING OFFICER TIPSORD: Ms. Frisbie. 14 MS. FRISBIE: Would you say that or do 15 you know if the presence of an egret would 16 indicate the presence of small fish or other 17 things that it might be eating in the water? 18 MR. LANYON: That may be true, 19 although, this river looks rather muddy so 20 I'm not sure the egret can see much. 21 HEARING OFFICER TIPSORD: 22 Ms. Meyers-Glen.
- 24 believe, it's the last -- the foliage along

MS. MEYERS-GLEN: Returning to, I

1 the north bank of the Cal-Sag Channel after the confluence with the CSSC, so this is further towards the Chicago -- the confluence with the Chicago Sanitary and Ship Canal. 5 There are areas such as this one with tree foliage overhanging over the waterway and this is actually an alcove, correct? 8 MR. LANYON: This is actually what? 9 MS. MEYERS-GLEN: An alcove, correct? 10 This actually has, like, an inlet, correct. 11 MR. LANYON: If I'm not mistaken, this 12 is where the wall along the north bank of the 13 Calumet-Sag Channel was cut to allow the 14 Illinois and Michigan Canal to flow into the 15 Calumet-Sag Channel. 16 MS. MEYERS-GLEN: And there are a lot 17 of trees and overhanging vegetation there, as 18 well? 19 MR. LANYON: Yes. 20 MS. MEYERS-GLEN: And then the next 21 picture is of the Chicago Sanitary and Ship 22 Canal between Summit -- the Summit boat 23 launch and the confluence with the Cal-Sag

Channel; is that the next photograph you

	5
1	have?
2	MR. ANDES: You skipped the next page.
3	MS. MEYERS-GLEN: The foliage along
4	the Chicago Sanitary and Ship Canal upstream
5	of MWRD monitoring station
6	HEARING OFFICER TIPSORD: I think
7	we've already talked about those.
8	MS. WILLIAMS: That's the next photo,
9	station ten.
10	MS. MEYERS-GLEN: Okay. So Attachment
11	3 is the next one and that's the last one
12	with rocks and aquatic vegetation. Do you
13	remember using that as one of the typical
14	factors of a natural waterway in your
15	Attachment 5?
16	MR. ANDES: I'm sorry, I'm confused
17	now.
18	HEARING OFFICER TIPSORD: You're
19	skipping the trees lining. You started to
20 .	ask about trees lining the Chicago Sanitary
21	and Ship Canal between Summit and the
22	confluence and now you're jumping to
23	Attachment 3.
24	MS. MEYERS-GLEN: I thought we had

	Page 144
1	already okay.
2	In this photograph let's go to
3	this one then, the trees lining the Chicago
4	Sanitary and Ship Canal between Summit and
5	the confluence with the Cal-Sag Channel. Are
6	you familiar with the confluence of the CSSC
7	and the Cal-Sag Channel?
8	MR. LANYON: Yes.
9	MS. MEYERS-GLEN: And when the CSSC in
10	that area are you familiar with the
11	vegetation along the banks? There are a lot
12	of trees, right?
13	MR. LANYON: Yes. But this is not at
14	the confluence.
15	MS. MEYERS-GLEN: This is the CSSC
16	between Summit and the confluence, correct?
17	MR. LANYON: Yes. That's what the
18	caption says and I believe it's correct.
19	MS. MEYERS-GLEN: And this would look
20 .	like that? As to your knowledge, that would
21	look like that stretch of the waterway?
22	MR. LANYON: It is typical. I will
23	say that at Willow Springs the Chicago
24	Sanitary and Ship Canal, as one goes

downstream from Summit, from Summit to Willow
Springs, roughly six miles, it is a
trapezoidal section cut out of earth. There
are a number of industrial sites along there.

At Willow Springs the channel transitions to a rectangular section with vertical rock walls. And most of the properties adjoining the canal is Forest Preserve District land, it's heavily wooded as you see in this photograph.

But below the waterline you've got a vertical rock wall. The rock section is generally 160 feet wide and 24 feet deep.

MS. MEYERS-GLEN: Well, in your testimony you talked about tree canopy that extends over the waterway providing refuge or shelter, you do discuss that. And my point here is that there's a good part of the Chicago Sanitary and Ship Canal that's wooded along those banks, correct?

MR. LANYON: Wooded?

MS. MEYERS-GLEN: Has trees.

MR. LANYON: Along the bank?

MS. MEYERS-GLEN: Like this, the

photograph, is indicative to a good portion of CSSC; is that correct?

MR. LANYON: Yeah. Wooded along the banks, but that doesn't mean there's tree cover over the water to, you know, protect the water from being warmed by the sunshine and such.

MS. MEYERS-GLEN: The last photograph is of a bench along the bank of the Cal-Sag Channel near Harlem Avenue. You said you were familiar with that location, correct?

MR. LANYON: Yes. That's at our sidestream elevated pool aeration station number four.

MS. MEYERS-GLEN: And that's nice and shaded from the trees?

MR. LANYON: Yes.

MS. DEXTER: Can I ask a follow-up on the previous photo we were looking at on the Sanitary Ship and Canal? You mentioned the rock walls; would you agree that those rock walls are crumbling, it's not a smooth surface, but it's --

MR. LANYON: Yes, there's areas where

		Page 147
1		the fall has failed.
2		MR. ANDES: On what particular water
3		body are you talking about, the Cal-Sag
4		Channel or the
5		MS. DEXTER: Well, anywhere where
6		there's rock walls he described.
7		MR. ANDES: Any areas where walls are
8		crumbling.
9		MS. DEXTER: Right. Where the surface
10		is crumbling.
11		MR. LANYON: Yes.
12		MS. DEXTER: Thank you.
13		MS. MEYERS-GLEN: The last quality
14		that I wanted to quickly go over are three
15		photographs here. In your Attachment 5 you
16		stated that there were rocks and aquatic
17		vegetation, that that was indicative of a
18		natural waterway that (inaudible)
19		THE COURT REPORTER: Can you repeat
20		that?
21		MS. MEYERS-GLEN: Sure. You stated
22	•	that there were rocks and aquatic vegetation
23		present in a natural waterway and that wasn't
24		present on the CAWS. And I wanted to bring

·	Page 148
1	your attention to Attachment 3. Now you've
2	already described a lot of circumstances
3	where there are rocks, correct?
4	MR. LANYON: Along the shoreline, yes.
5	MS. MEYERS-GLEN: And with this
6	photograph here and those rocks went into
7	the water in a lot of those photographs,
8	correct?
9	MR. LANYON: I believe so, but we
10	can't see them.
11	MS. MEYERS-GLEN: In the first picture
12	with the overhanging trees and vegetation in
13	an alcove near the confluence of the Cal-Sag
14	Channel and on the Little Calumet River, can
15	you see the aquatic vegetation in the back in
16	the water?
17	MR. LANYON: I can't
18	MS. MEYERS-GLEN: Can't make that out?
19	MR. LANYON: tell from this
20	photograph if that is vegetation growing in
21	the water or emergent vegetation or whether
22	it's on the shoreline.
23	MS. MEYERS-GLEN: There's a lot of
24	plants and trees in this photograph, correct?

	Page 149
1	MR. LANYON: What's that?
2	MS. MEYERS-GLEN: There's a lot of
3	plants and trees in this photograph in the
4	alcove?
5	MR. LANYON: A lot of plants?
6	MS. MEYERS-GLEN: And trees, yes.
7	MR. LANYON: I mean, trees and
8	vegetation. I can't distinguish individual
9	plants.
10	MS. MEYERS-GLEN: And there are rocks
11	that go down into the water on the left or
12	the right? Sorry.
13	MR. LANYON: On the right-hand side
14	there's a point that looks like it has rocks
15	on the slope and in the waterline at the
16	waterline.
17	MS. MEYERS-GLEN: And then in the
18	photograph beneath it there's a Great Blue
19	Heron perching on a fallen branch in the
20	Cal-Sag Channel at the confluence of the
21	Little Calumet River. Are you familiar with
22	that location?
23	MR. LANYON: Yes.
24	MS. MEYERS-GLEN: And you've seen

	Page 150
1	Great Blue Heron along this waterway?
2	MR. LANYON: Yes.
3	MS. MEYERS-GLEN: Can you describe
4	you had mentioned that there were seldom
5	places for wildlife to use surrounding
6	vegetation. He's perched on a
7	MR. LANYON: I beg your pardon? You
8	represented that I testified to what?
9	MS. MEYERS-GLEN: In your testimony
10	what is the purpose let me rephrase.
11	Strike that.
12	The Great Blue Heron is sitting on
13	outstretched vegetation, correct?
14	MR. LANYON: Standing on a looks
15	like a tree fallen in at the shoreline.
16	MS. MEYERS-GLEN: A fallen tree
17	branch. And that's quite different, this
18	photograph, from the one taken over 100 years
19	ago in 1895, correct, all of these are with
20	the nice vegetation?
21	MR. ANDES: Are they the same
22	location?
23	MS. MEYERS-GLEN: Well, you're saying
24	that these are typical of the CAWS, Chicago

		Page 151
	1	Area Waterways, and this photograph is very
	2	different than the portrayal that's typical
	3	of the CAWS; is that correct?
	4	MR. ANDES: I'm not sure that the
	5	statement as to this photo is that it's
	6	typical of the CAWS and I'm not sure that one
	7	photograph shows what's typical either.
	8	MS. MEYERS-GLEN: There are different
	9	areas that are along
	10	MS. WILLIAMS: Is that an objection?
	11	MS. MEYERS-GLEN: the CAWS that
	12	have these characteristics, correct?
	13	MR. LANYON: They are different
	14	photographs of different areas.
	15	MS. MEYERS-GLEN: With different
	16	characteristics and at different times?
	17	MR. LANYON: Different times,
	18	definitely.
	19	MS. MEYERS-GLEN: If I may move to
	20	Question 14?
	21	DR. GIRARD: Let me just ask a
	22	follow-up that sort of goes along with this
	23	and fits in the middle here.
-	24	Mr. Lanyon, in your testimony you
1		

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1	said that the North Shore Channel was
2	completed in 1910. Do you know if any
3	scientific studies by an organization like
4	the Illinois Natural History Survey were done
5	to characterize this area before it was
6	channelized?
7	MR. LANYON: No, I can't say that I
8	do.
9	MR. ANDES: I can also offer there is
10	an exhibit that I think helps address this in
11	terms of which areas were what the
12	situation was before. And Mr. Lanyon might
13	want to address this because this is a
14	DR. GIRARD: Is that exhibit
15	already that's an exhibit that's already
16	in the record?
17	MR. ANDES: Yes. An attachment to his
18	testimony.
19	DR. GIRARD: Okay.
20	MR. ANDES: And there are copies over
21	there for everyone.
22	MS. WILLIAMS: Can we refer, for the
23	record, to which attachment to his testimony
24	we're looking at?

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1	MR. ANDES: I believe it was yes.
2	I don't have it right in front of me, but I
3	can do that.
4	MR. LANYON: I believe that was
5	Attachment 3.
6	Did I answer the question? I'm
7	not aware of a study by the Natural History
8	Survey.
9	DR. GIRARD: Well, any once you
10	point me to the attachment, I'd have to ask
11	what is the attachment based on, where did
12	you get the information for this attachment?
13	HEARING OFFICER TIPSORD: The before
14	and after.
15	MR. LANYON: This is simply a before
16	and after representation of the channels that
17	were built to reverse the flow of the Calumet
18	and Chicago Rivers.
19	HEARING OFFICER TIPSORD: But where
20	did you get the information for them before
21	the river reversal? What's the basis of that
22	information?
23	MR. LANYON: From maps that the
24	District has in its archives from when it

1	built the first canal.
2	DR. GIRARD: So those maps are
3	referenced in the attachments?
4	MR. LANYON: No.
5	DR. GIRARD: And is there any other
6	written information besides maps? Are there
7	narrative descriptions of the area?
8	MR. LANYON: I'm not sure if we have
9	such descriptions in our archives. We may.
10	MR. ANDES: I think there are books
11	and reports that have been written concerning
12	the building of the System, which I think do
13	describe to some extent these conditions and
14	we'd be glad to provide those for the record.
15	DR. GIRARD: Thank you. That would be
16	great.
17	MR. ETTINGER: Can I just ask whether
18	these maps accurately reflect the coast of
19	Lake Michigan before and after?
20	MR. LANYON: It's approximately
21	correct.
22	MR. ETTINGER: Lake Michigan is all an
23	unnatural bank, too, isn't it?
24	MR. LANYON: I beg your pardon?

	Page 155
1	MR. ETTINGER: Lake Michigan from the
2 .	Chicago River north to Hollywood is all an
3	unnatural coastline, too, isn't it?
4	MR. LANYON: Except for the
5	Streeterville area that was filled in.
6	MR. ETTINGER: That was
7	MR. ANDES: You said unnatural?
8	MR. ETTINGER: It's unnatural at
9	Streeterville. It's actually fill all the
10	way up to Rogers Park, isn't it?
11	MR. ANDES: We can stipulate to that.
12	MR. LANYON: I don't know.
13	MR. ETTINGER: Is the step revetment
14	on Lake Michigan natural?
15	MR. LANYON: Step?
16	MR. ETTINGER: You don't know what the
17	step revetment is?
18	MR. LANYON: Oh, I'm sorry, the step
19	revetment that was put in to protect the
20	shoreline?
21	MR. ETTINGER: Yeah.
22	MR. LANYON: No, that's not natural.
23	MS. MEYERS-GLEN: Question 14, you
 24	stated the CAWS were not constructed or

	Page 156
1	altered with recreational and aquatic life
. 2	uses in mind on Page 3 of your testimony; is
3	that correct?
4	MR. LANYON: Yes.
5	MS. MEYERS-GLEN: And yet these uses
6	exist, do they not?
7	MR. LANYON: Yes.
8	MS. MEYERS-GLEN: And are you aware of
9	other man-made or heavily altered bodies of
10	water that support recreational activities
11	like the ones found on the CAWS?
12	MR. LANYON: I have no direct personal
13	knowledge.
14	MR. HARLEY: Are you familiar with
15	Illinois Department of Natural Resource
16	regulations that address the issue of public
17	use of waters in the CAWS?
18	MR. ANDES: Can you provide a specific
19	citation?
20	MR. HARLEY: 35 Illinois I'm sorry,
21	17 Illinois Administrative Code, Section
22	3704.20. I'm not trying to trip you up in
23	terms of an obscure legal reference. That's
24	not the point of my question. It's a more

	Page 157
1	general question about are you familiar with
2	Illinois Department of Natural Resource
3	Regulations addressing public use of the
4	CAWS?
5	MR. LANYON: No.
6	MR. HARLEY: Thank you.
7	MS. MEYERS-GLEN: Question 15, in your
8	testimony on Page 5 you state that physical
9	characteristics such as banks with high walls
10	can render hand-powered boating hazardous to
11	individuals.
12	You also reference in Attachment 4
13	a report by the District that states, in
14	relevant part, that some recreational
15	activities are hazardous because of the lack
16	of safe exit points from the water and I give
17	the citation to that.
18	How many boat launch sites are
19	there along the Chicago Area Waterway System
20	that allow paddlers to get in and out of the
21	waterway?
22	MR. LANYON: I think I've already
23	testified to those that I do recall and I
24	said I can't remember them all.

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1	MS. MEYERS-GLEN: Okay. So you don't
2	know sitting here how many exit points there
3	are of boat launch sites on the CAWS?
4	MR. LANYON: That's correct.
5	MS. MEYERS-GLEN: And do you know
6	as to your knowledge, how many additional
7	launch sites are planned for construction?
8	MR. LANYON: I don't know the answer
9	to that either.
10	MS. MEYERS-GLEN: Do you know how many
11	private docks or ramps there are between the
12	Clark Park boat launch and the District's
13	North Side wastewater treatment plant?
14	MR. LANYON: No.
15	MS. MEYERS-GLEN: Are you aware that
16	there are actually 45 private docks alone
17	MR. ANDES: I think it's evident
18	MS. MEYERS-GLEN: between the Clark
19	Park boat launch and the District? If he
20	knows the answer, I would appreciate it if he
21	could
22	HEARING OFFICER TIPSORD: But he
23	already told us he doesn't know how many
24	private ones there are and now you're giving

him an exact number and asking him if he's aware of that. And I have to agree that you're now presenting evidence in your question, so he's already said he doesn't know.

2.3

MS. MEYERS-GLEN: Do you know the names and locations -- you had named a few of the launch sites used for canoes and kayaks along the CAWS the District has approved, cooperated in establishing or partially owns.

MR. ANDES: I'm not sure what approved or cooperated in establishing mean. Are we talking about partially owning the launch, just the property or anything else?

MS. MEYERS-GLEN: Either.

MR. ANDES: What do approved and cooperated and establishing mean?

MS. MEYERS-GLEN: Okay. Well, let me make this a little bit more simple. I'll ask it in this way. Has the District approved of or partially owned property where the Park District and municipal launch sites are in the CAWS such as River Park, the Oakton Street launch, Lincoln Village, Dusable Park,

	rage 161
1	Openlands.
2	MR. LANYON: Not offhand.
3	MS. MEYERS-GLEN: And has to your
4	knowledge, has the District evaluated safety
5	when allowing local governments to lease
6	when leasing their property to local
7	governments for the use of boat launches or
8	access for the waterways for recreational
9	activities along the CAWS?
10	MR. LANYON: Have we?
11	MS. MEYERS-GLEN: Have you evaluated
12	safety
13	MR. LANYON: No.
14	MS. MEYERS-GLEN: of recreational
15	uses when
16	MR. LANYON: No.
17	MS. MEYERS-GLEN: leasing property
18	to local municipalities or to park districts?
19	MR. LANYON: No. In our leases, all
20	liability for whatever use of the property is
21	intended is laid on the lessee.
22	MS. MEYERS-GLEN: But do you post
23	signage advising the public that waters are
24	not safe for bodily contact, do you not?

	Page 162
1	MR. LANYON: At the insistence of the
2	Agency several years ago, we posted such
3	signage.
4	MS. MEYERS-GLEN: And that's on
5	property that you either own or lease for
6	recreational use, correct?
7	MR. LANYON: Yes.
8	MS. WILLIAMS: Would the District be
9	willing to provide copies of these leases for
10	the record?
11	MR. LANYON: I'm sorry, copies of?
12	MS. WILLIAMS: The leases.
13	MR. ANDES: I'm sure, while they're
14	relevant, we can stipulate as to what
15	properties we lease.
16	MS. WILLIAMS: We've gotten into
17	whether the leases reflect that there will be
18	boat launches and whether the District has
19	considered safety. Maybe it would help to
20	have copies of even a representative example
21	of the leases.
22	MR. ANDES: Are these parties
23	contending that there's a significant public
24	health risk from putting people into the

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water, that the District should be preventing people from getting into the water?

MS. MEYERS-GLEN: I'm merely asking about the District's consideration of safety when it engages with other parties to establish these boat launches, how they're involved in that process, what they consider -- to see what the District has done in regards to safety.

The District has asked a lot of questions regarding safety to other witnesses and I'm curious as to the District's involvement in the same kind of assessment, that's all.

MR. HARLEY: If I may follow-up on that, too? It seems, with all respect, that a great deal of the testimony that was given suggested that the waters -- some portions of the CAWS may be physically unsuitable for boating and recreational activities and so the fact that we have so many areas where people are entering into the river system, using the river system, some of which they're doing on District property, seems to be

		Page 164
1		relevant to evaluating the credibility of
2		those assertions.
3		MR. ANDES: And the leases are
4		relevant to that?
5		MR. HARLEY: How can the District be
6		entering into a lease that may or may not
7		encourage public access to waters when the
8		District is taking the position in this
9		rulemaking that those waters are physically
10		unsuitable for recreational uses?
11		MR. ANDES: So are these parties
12		contending the District should simply
13		prohibit access to the CAWS entirely?
14		MR. HARLEY: No.
15		MS. WILLIAMS: I think the parties are
16		asking that the documents that are being
17		referred to in testimony are made part of the
18		record.
19		MR. ANDES: What particular
20		allegations are we referring to in terms of
21		physical and suitability that we're
22	•	addressing?
23		HEARING OFFICER TIPSORD: I think I
24		I think what I'm going to do here is ask the

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District to provide an example of the leases you've entered into with any -- with the Chicago Park District for leasing of property so that we can see what is in that lease as far as -- you've testified that -- and,

Mr. Lanyon, you've testified repeatedly that you don't say, here, we're going to lease this to you for a boat launch, but you also say that all the liability is then on the Park District. I think we'd like to see that as it relates to the use of the CAWS, so if we can see an example. I'm not asking you to provide all of them, but if you could give us a relative example.

MR. ANDES: Sure.

HEARING OFFICER TIPSORD: Thank you.

MS. MEYERS-GLEN: I've got one follow-up question, if I may, and that was in line with this. Are you aware that on approval by the former District General Superintendent, John Farnan, an MWRD employee participated in an event promoting water trails in the Calumet area in 2006, are you familiar with that?

1	MR. LANYON: I can't say that I am.
2	I'm familiar that the some group came to
3	one of our study sessions that talked about
4	their water trails planned for the Calumet
5	area.
6	MS. MEYERS-GLEN: Would it surprise
7	you that the general superintendent okay'd
8	District participation in a paddling event to
9	promote such use?
10	MR. LANYON: We do that every year.
11	HEARING OFFICER TIPSORD:
12	Ms. Meyers-Glen, I'm going to ask you to
13	start wrapping it up. The court reporter has
14	to be somewhere else at 1:00 o'clock, so
15	we're going to have to take our lunch break
16	in the next couple of minutes.
17	MR. ANDES: I have one follow-up
18	question for now. Based on the information
19	available, does the District believe that
20	there are significant public health risks
21	from paddling or canoeing in the CAWS in the
22	current status?
23	MR. LANYON: From the UAA reports?
24	MR. ANDES: And a Geosyntec Risk

		Page 167
1		Assessment Report and other documents.
2		MR. LANYON: Well, we don't believe
3		there's health risks, but the question is
4		being asked about safety. Safety is a larger
5		question than just health risks, so
6		MR. ANDES: And you believe there are
7		some areas
8		MR. LANYON: We're just stating that
9		there are some areas where there are safety
10		concerns.
11		MR. ANDES: Physical safety issues?
12		MR. LANYON: Physical safety concerns.
13		MS. MEYERS-GLEN: Could you please
14		give the names, dates and locations of
15		recreational events that the District has
16		either assisted with or been a partner in
17		over the last five years such as the Flat
18		Water Classic where 511 people paddled the
19		Chicago River in 2007?
20	•	MR. ANDES: That is evidence,
21		obviously, 511 people.
22		MS. MEYERS-GLEN: And that's great.
23		That's one. I was just wondering what else
24		the District assisted in or has partnered in

24

event that the District also assists in or

boats the day prior to the event to do a

MR. LANYON: We schedule our pontoon

23

24

	1			t
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