Page 1

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:

LIAMED OILAT THE CHANDADDO AND	CLERK'S OFFICE
WATER QUALITY STANDARDS AND	MAY 2 1 2009
EFFLUENT LIMITATIONS FOR	STATE OF ILLINOIS Pollution Control Boan
THE CHICAGO AREA WATERWAY)
SYSTEM AND THE LOWER)
DES PLAINES RIVER:) No. R08-9
PROPOSED AMENDMENTS TO)
35 Ill. Adm. Code Parts)
301, 302, 303 and 304)

REPORT OF PROCEEDINGS had before the ILLINOIS POLLUTION CONTROL BOARD held on May 6, 2009, at 9:00 o'clock a.m. at the Thompson Center, Room-9-40, Chicago, Illinois.

- APPEARANCES: ILLINOIS POLLUTION CONTROL BOARD: MS. MARIE TIPSORD, Hearing Officer MR. THOMAS E. JOHNSON, Member MR. ANAND RAO, Senior Environmental Scientist MR. LIN SHUNDAR 8 MS. ALISA LIU ILLINOIS ENVIRONMENTAL PROTECTION AGENCY: Ms. Stefanie Diers 10 Ms. Deborah Williams 11 12 Mr. Robert Sulski 13 ENVIRONMENTAL LAW AND POLICY CENTER 15 33 East Wacker Drive, Suite 1300 Chicago, Illinois 60601 16
- 17 (312) 795-3707
- 18 BY: MR. ALBERT ETTINGER and JESSICA DEXTER
- 19 Appeared on behalf of ELPC, Prairie Rivers
- Network and Sierra Club;

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Page 3

- ¹ APPEARANCE CONTINUED:
- ² BARNES & THORNBURG LLP
- One North Wacker Drive, Suite 4400
- 4 Chicago, Illinois 60606-2833
- ⁵ (312 357-1313
- 6 BY: MR. FREDERIC P. ANDES
- ⁷ Appeared on behalf of the MWRDGC.

1 CHAIRMAN TIPSORD: Good morning 2 My name is Marie Tipsord, and everyone. I've been appointed by the Board to preside as officer in this hearing entitled Water 5 Quality Standard Waterway System and lower Des Plaines River Proposed Amendments to Illinois Admin Code 301, 302, 303, 304. 8 This is docket number R08-09. With me to my 9 right is Thomas Johnson and Shundar Lin. To 10 my immediate left is Anand Rao and Alisa Liu 11 from our technical unit. As I indicated 12 yesterday, Dr. Girard is tending to business 13 in Springfield. He did talk to me this

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We will begin today and continue to hear testimony. We will hear from three witnesses, hopefully, Margaret Frisbie,
Thomas Bamonte and James Huff. We will start with Margaret, finish the day with
James Huff. We will start with questions
from the Metropolitan Water Reclamation
District and the IEPA. Anyone may ask a follow-up question. You do not need to wait until your turn to ask a follow-up question.

morning and gives everyone his regards.

	1 4.50
1	I do ask that you raise your hand, wait for
2	me to acknowledge you, after I have
3	acknowledged you, please state your name and
4	whom you represent before you begin your
5	question. Please speak one at a time. If
6	you speak over each other, the court
7	reporter will not be able to get your
8	questions on the record. Please note that
9	any question asked by a Board member or
10	staff are intended to help build a complete
11	record for the Board's decision and not to
12	express any preconceived notions or biases.
13	Mr. Johnson will be acting in Dr. Girard's
14	stead today, and I think we're ready to
15	begin.
16	MARGARET FRISBIE
17	having been first duly sworn, was examined and
18	testified as follows:
19	MS. DEXTER: I have Ms. Frisbie's
20	pre-filed testimony here.
21	HEARING OFFICER TIPSORD: If there's
22	nolobjection, we will mark the pre-filed
23	testimony of Ms. Frisbie as 259. Oh, by the
24	way, this is day 27 of hearings. People

were asking and I said I would check. This is day 27 of the hearings. For those of you who were hoping for that record, we're coming up on it fast. Seeing no objection, Margaret Frisbie's testimony is Exhibit 259.

Are we ready to begin questioning or do you have something before we start? Mr. Andes then.

MR. ANDES: I'm going to start with question 2: "What safety protocols does your organization employ when inviting the public to use the CAWS"?

MS. FRISBIE: Well, the Friends'
programs are really only a small fraction of
the people who use the CAWS, so we don't
have any control of how and when the general
public uses the CAWS. It's a public
facility with public canoe launches. It
goes through neighborhoods. So there's
people using the river any way they like
that we don't control. For our organization
and our paddling programs, we follow
established activity safety protocols.
First we follow general safety precautions

- 1 and quidelines that are put forth by the United States Canoe Association, as well as 3 a brochure that was published in 2003 as part of the stakeholder proceeding, I believe, which is the CAWS Health Precaution Brochure. It was published by the MWRD, Illinois Department of Public Health, the U.S. EPA and IEPA. And we have copies of 9 both these items. 10 I'd like to add, however, on the
- 11 idea of inviting people to use the CAWS, I 12 think it's important to point out that other people are encouraging use, and we have two 14 other things that we'd like to add when 15 Jessica finishes with this.
 - MS. DEXTER: The first Exhibit I offered is the first that Margaret referenced.
- 19 MR. ANDES: So these are the 20 national quidelines?
- 21 MS. FRISBIE: Yes, for the U.S.
- 22 Canoe Association.

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23 MS. DEXTER: And the second are the 24 Chicago Area Waterways Health Precautions.

1	HEARING OFFICER TIPSORD: The first
2	exhibit, United States Canoe Association
3	Competition Cruising Conservation Camping
4	Camaraderie Competition Events, USA
5	Sanctioning Guidelines, if there's no
6	objection, we will mark that as Exhibit 260.
7	Seeing none, it is Exhibit 260.
8	And the second one is Chicago
9	Area Waterways Health Precautions. It's a
10	brochure. Publication date of 10/2003. If
11	there's no objection, we will mark that as
12	Exhibit 261. Seeing none, it is
13	Exhibit 261.
14	MS. DEXTER: I have also two other
15	documents that Margaret referenced. I have,
16	"It's Our River Day." And we have a CD copy
17	of the Illinois Bureau of Tourism
18	Commission, which we will play in just a
19	moment.
20	HEARING OFFICER TIPSORD: If there's
21	no objection, we will mark the brochure,
22	"It's Our River Day" as Exhibit 262. Seeing
23	none, it is Exhibit 262.
24	MR. ANDES: Can I ask, is this

	rage 9
1	responsive to the question I've asked?
2	MS. FRISBIE: Yes, well, we talked
3	about inviting people on the CAWS, and so
4	what I'd like to show is Friends' of the
5	Chicago River is not the only organization
6	that has talked about using the CAWS.
7	MR. ANDES: That wasn't my question.
8	MS. DEXTER: She's already
9	referenced it in her testimony.
10	MR. ANDES: So. We're here to
11	answer the questions that are being
12	raised
13	HEARING OFFICER TIPSORD: Are you
14	objecting to the admission of the exhibit?
15	MR. ANDES: Yes, I am. It is not
16	responsive to my questions.
17	CHAIRMAN TIPSORD: That is however,
18	irrelevant. And in rulemaking, evidence is
19	relevant. It's relevant.
20	MR. ANDES: And the question is
21	whether this is played, this is really
22	giving testimony. This is really giving
23	testimony. It's not answering questions.
24	When we wanted somebody to give testimony,

we filed a motion and asked to give testimony. This is providing testimony and is not responsive to my question.

HEARING OFFICER TIPSORD: I'm going to enter it as an exhibit, but we won't play it. It can be viewed by anybody who wants to view it. We will enter it as an exhibit, but we won't take the time to play it.

So over the objection, we will enter the CD Rom as Exhibit 263.

MR. ANDES: So to go back, the safety protocols that your organization employs are those in the Chicago Area Waterways Health Precautions document?

MS. FRISBIE: We follow several different protocols. We follow the water quality guidelines put forth in the 2003 CAWS brochure, as well as what's recommended as standard operating procedures for canoeing and kayaking programs. We take people canoeing, including, we train our program staff. We have a volunteer guide group of about 35 guides who we train in the history of the river. We train in water

quality, paddling skills, CPA and canoe safety before the season begins, and then they take people out on the river. They give all the guests general paddling instruction before they take them out on the water. They talk about the water quality based on what, you know, we can talk about from that brochure, washing your hands, don't rub your eyes, all those kinds of things. We require life jackets at all times. We have sweep boats. We make sure the guides wear orange vests so they can be seen easily on the water.

MR. ANDES: And the specific precautions that are identified as general precautions in the brochure, including avoiding swallowing water, avoiding physical contact with water, washing hands thoroughly, advising people with weakened immune systems to limit exposure, are those specifically stressed? Are they stated to people? Are they just handed the brochure or what's the protocol?

MS. FRISBIE: We train the quides --

to be honest, I'm present -- but they do understand water quality. They are carrying boats and lifting them out of the water so they are paying attention to that kind of thing. They are instructed to instruct the quests of these precautions.

MR. ANDES: Do you avoid certain areas due to large and motorized boat trafficking, absence of safe entry and exit locations and/or other issues incompatible with recreation uses?

MS. FRISBIE: Well, I'm not aware of any conflicts with boats in any of our paddling programs in the almost nine years of workings with Friends of the Chicago River. I'm also unaware of any conflicts with any other paddling on the river during those same years. The river is, frankly, it's a great place to paddle. It's beautiful. It's fun. There's a lot of places to get in and out. And if people fall in the river, if they fall in, they tend to get back in their boats. So, you know, you pile your stuff in, if it hasn't

1	been tied in, you get back in and you keep
2	going. But I think it's important to note
3	that the river, there's plenty of places to
4	get in on the north branch. We have some
5	series of photos that show all the docks. I
6	don't even know if they are all the docks,
7	but we have we had a staff person go out
8	on the river, and he counted between Clark
9	Park and River Park, which are two park
10	district facilities that were constructed
11	that have canoe launches, he counted 47
12	docks. Of which 45 were private, but they
13	were on the riverbank and you could get out.
14	As well as the two public docks that I
15	mentioned, and we have photos of that.
16	MS. DEXTER: I'm going to offer this
17	as an exhibit to support Margaret's
18	response.
19	MR. ANDES: So there are some areas

MR. ANDES: So there are some areas where there are entry and/or exit locations. I guess my question was, you are aware of some areas in the system where there is barge traffic, correct?

MS. FRISBIE: I am. But at the same

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1 time I'm not aware of any conflict with barges. We also have a series of other 2 photos in addition to the north branch. personally am most familiar with the north 5 branch of the Chicago River and the north shore channel downtown, and I have a series 7 of photos as well that show places that if you were trying to get off the River 8 9 downtown and in the section that I 10 mentioned, other places. So Jessica will 11 hand that out. And then in addition, we did 12 what's called commonly known as the Circle 13 Tour last summer where we took a boat ride 14 from downtown through the main stem to the 15 south branch, out the Sanitary and Ship 16 Canal to the confluence with the Cal Sag and 17 came back up into the lake system and back 18 downtown. We just took a bunch of photos so 19 that you could see, while there are areas 20 that, you know, where there's industry and 21 all kinds of things throughout this, I think 22 it's 70-something miles of waterway, it's 23 really mixed. So we could take you through 24 the slideshow we have as it is a series of

pictures, if that would help. MR. ANDES: I'm not sure that's necessary. What I'm trying to get to is, 3 are there -- let's go back to my original 5 question. 6 HEARING OFFICER TIPSORD: Let me mark these exhibits first. 8 MR. ANDES: Sure. 9 HEARING OFFICER TIPSORD: First 10 exhibit that I've been handed is "Boat Launches Clark Park 1 to River Park 47 11 12 direct from south to north." If there's no objection, we will mark that as Exhibit 264. 13 14 Seeing none, it is Exhibit 264. 15 The second one is Egress Points 16 on CAWS, Testimony of Margaret Frisbie, if there's no objection, we will mark that as 18 Exhibit 265. Seeing none, it is Exhibit 265. 19 20 I've also been handed a CD Rom, 21 "CAWS Circle Tour Photos." We'll mark that 22 as Exhibit 266, if there's no objection. 23 MS. DEXTER: I also have printouts

of all the numbers.

1 MR. ANDES: My question was, are you 2 aware of areas where there's barge traffic? MS. FRISBIE: Yes. MR. ANDES: Does your group advise 5 people to avoid those areas? MS. FRISBIE: No, we don't. There's some areas where MR. ANDES: 8 there aren't safe entry or exit locations, correct? 10 MS. FRISBIE: I don't think we can 11 characterize it that way. I think all of 12 the river system that I mentioned 13 previously, and we can go through and look 14 at the slides, there are places if you chose 15 to get out of the river, you could get out. 16 The boat launches on the north branch -- I 17 think people are familiar with the north 18 It's mostly riverbank, and there's branch. 19 a lot of them that are mostly docks. If you look downtown at the photos I provided, what 20 21 you'll see is every couple of blocks there 22 is a ladder, there is a dock. There's 23 Marina City. There is a ladder in front of 24 Flatwater, which in the photo it's called

	= J =
1	Riso Hotel (sic). It's now Flatwater. East
2	of Michigan Avenue, there's several docks.
3	The one in the photo is just east of
4	Michigan Avenue. A little bit further east
5	from there is a dock at Columbus Drive.
6	HEARING OFFICER TIPSORD: Could you
7	specify which exhibit you are referring to?
8	MS. FRISBIE: I'm sorry, Egress
9	Exits on the CAWS.
10	HEARING OFFICER TIPSORD: Which is
11	Exhibit 265.
12	MS. FRISBIE: 265. There is a dock
13	at the East Bank Club, which is also
14	downtown. You can see the rowers near Wolf
15	Point, and there is a photo of that, that
16	shows the soft edge at Wolf Point. There is
17	a photo on the south branch near Chinatown,
18	which shows the nature of the soft edge
19	there. That's at about Cermak where
20	Lawrence's Fishery and Riverfront restaurant
21	is. The south branch at about 16th Street,
22	again, you can see there is a soft bank.
23	And then the North Shore Channel, which

would be north of River Park, and actually

just south of the North Side Waste Water Treatment Plant, this is a boat launch at Peterson and Lincoln about. The north branch turning basin has on the west side of the turning basin, there is a dock that you can see that's got colored canoes. And then on the other side in the east channel at the north branch at North Avenue, there is a crew team docked where the Lincoln Park Juniors row. The last photo shows the mouth at Bubbly Creek. On one side, that isn't pictured in this picture shot, is Canal Origins Park, which has a soft bank. there's a park district and city project on the east bank, which you can see in this That's a redevelopment, and that photo. again is a soft bank. And the Circle Tour I mentioned starts downtown and shows the nature of the mixed walls. And so it's not really sea wall, it's a mixture of soft bank, sea wall, but a lot of it is green as you get out of the river.

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HEARING OFFICER TIPSORD: Before we go on, let me catch up with the exhibits

- because I don't think I ever formally
- 2 admitted Exhibit 266, which is the CD Rom.
- I will admit that as Exhibit 266 seeing no
- objections. The hard copies of the photos I
- will admit as 266A, since they are the same
- 6 photos on the CD Rom, if there's no
- objection. Seeing none, that's 266A. Okay,
- 8 I'm now caught up on the exhibits. Go
- 9 ahead, Mr. Andes.
- MR. ANDES: Sure. I'll go on to
- question C. When I ask you, I obviously
- mean your group and the activities that your
- group sponsors, do you avoid certain times
- such as following wet weather events?
- MS. FRISBIE: My understanding is we
- are not talking about up weather here today,
- but we do check the weather. Friends' of
- The Chicago River checks the river for our
- paddling programs, and if there is a storm
- that will impact the area of river that we
- are paddling on, we'll take that into
- account, if there's going to be lightening,
- that kind of thing.
- MR. ANDES: So from a safety

perspective if there's lightening, but not simply because there's wet weather and precipitation and possibility of combined sewer discharges?

MS. FRISBIE: We do look at combined sewer discharges. The Metropolitan Water Reclamation District website has a web page where they post if there has been a combined sewer overflow. If there's a heavy rain, we cancel if there's extreme weather, and we also pay attention. We have a CSO policy, that we don't bring people on the river 24 hours after a CSO. I'm not sure there is any kind of standard guideline for that. That's what our organization adopted some years ago.

MR. ANDES: Do you allow children to participate in your events?

MS. FRISBIE: Very young children are not allowed to participate. But a better way to characterize how our events are managed is really about experience. So we pay special attention to those who have little or no experience. But, again, I

1	think it's really important to remember that
2	we only take a fraction of people out on the
3	river that use the CAWS. So our programs
4	are just a fraction. So we can't control
5	what any other individual or group is doing.
6	MR. ANDES: Understood. So when you
7	are talking about very young children,
8	that's what kind of age range?
9	MS. FRISBIE: Under six.
10	MR. ANDES: And so are your guides
11	told not to allow children under six in your
12	events?
13	MS. FRISBIE: I believe I know in
14	the Flatwater Classic materials, which is
15	our canoe and kayak race we hold, that it's
16	posted that you need to be six years or
17	older. And I believe on our website and all
18	the information on our paddling programs, it
19	says you need to be six or higher. That's
20	slightly higher than the U.S. Canoe
21	Association Guideline, which calls for five-
22	year olds.
23	MR. ANDES: Are there special safety
24	protogola for ghildren?

1	MS. FRISBIE: Well, most children
2	all children are in fact with their parents,
3	but we make sure that everybody is wearing
4	their life jacket. We provide paddling
5	instruction. We have trained guides who are
6	with any canoe trip that we do. So
7	people kids are being watched. They are
8	not being ignored, and they are being taken
9	care of.
10	MR. ANDES: Do you allow novice
11	canoeists or kayakers to participate in your
12	events?
13	MS. FRISBIE: I would say the same
14	as I said earlier, that we pay attention to
15	people's skill level. So the only real
16	event that we do is the Chicago River
17	Flatwater Classic, and we do allow novices
18	to participate.
19	MR. ANDES: Are there any special
20	safety protocols for them?
21	MS. FRISBIE: Just what I described
22	earlier, following basic on the water safety
23	guidelines standard across the country.
24	Again, I would point out there are

1	other people on the river. The City of
2	Chicago has built docks. The Chicago Park
3	District has built docks. The Army Corp has
4	built docks. The Skokie Park district has a
5	dock. Facepoint on the Cal Sag, you can
6	access the river system on the CAWS there.
7	So just there's
8	MS. MEYERS-GLEN: Stacy Meyers-Glen.
9	I'm with Openlands. Are a lot of those that
10	you just mentioned on the CAWS Circle Tour
11	CD or in the photographs?
12	MS. FRISBIE: Yes.
13	DR. YATES: And you actually saw
14	everything on that Circle Tour that's
15	depicted in those photographs, right?
16	MS. FRISBIE: Yes.
17	MR. ANDES: And all those activities
18	take place without disinfection being part
19	of the process at the treatment plants,
20	correct?
21	MS. FRISBIE: Yes, they do.
22	MR. ANDES: Is there any liability
23	protection that the Friends' afford
24	themselves when it's organizing events on

the CAWS?

MS. FRISBIE: We insure pretty
everything we do. We have general liability
for the organization. We insure our fish
hotel, which is a habitat project on the
main stem. Our Big Fish Fall has insurance.
Chicago River Day, which is Saturday, a big
volunteer clean up with thousands of
volunteers on the river banks and in the
river. All of those have insurance, as well
as our canoe programs, which we get our
insurance from the U.S. Canoe Association.

MR. ANDES: I'm going to skip
question 3, and go to question No. 4. You
state that over the past 11 years 2640
people have been canoeing on the north shore
channel, north branch, Chicago River, main
stem, south branch, Bubbly Creek and along
the Sanitary and Ship Canal -- I'll skip
question A. I think we know that we're
talking about Bubbly Creek -- am I right
those figures average out to about 240
persons per year taking these guided trips?

MS. FRISBIE:

I believe you are

1 right. However, I don't think it's 2 important to break down Friends' trips that Unlike the canoe liveries who take out wav. thousands of people, we just take a fraction 5 of those people out. I have a list of crew teams and where they row from, a rental 7 company list that shows other people that 8 are taking people out. And I think it's just important to distinguish between what 9 10 Friends' of The Chicago River is doing and 11 what is possible on the CAWS and what is 12 happening on the CAWS. 13 MR. ANDES: My question was just 14 about your activities. 15 MS. FRISBIE: Okay. 16 MR. ANDES: I'll skip C, and let's 17 go to D. Can you break the numbers down in 1.8 terms of the 2640 people in terms of which 19 beaches they would have been canoeing on? 20 MS. FRISBIE: We made a chart of 21 those trips. I don't -- again, I don't

think it's important to break down Friends'

trips. We take people out as an education

and advocacy role. We don't organize

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1	anything beyond that, and so what these
2	numbers represent really are people who
3	interested in being on the river. There are
4	people who are willing to pay for that
5	experience. We think that that represents a
6	greater public, and I know that I've
7	mentioned later in my testimony plans and
8	activities of major land owners, the City of
9	Chicago Park District who are all investing
10	in the access to the river, and so we do
11	have this chart. But it's, you know, again,
12	it's breaking it down by reach, but I don't
13	think it's that important.

MR. ANDES: Duly noted.

HEARING OFFICER TIPSORD: I've been handed Friends' of The Chicago River Individual Canoe Trips By Reach 1998 to 2008. It's a chart, I will mark this as Exhibit 267 if there's no objection. Seeing none, it's Exhibit 267.

MR. Andes: I have a couple questions about this. It looks like the largest numbers is in the Skokie Lagoons. You understand that that's not part of the

1	system that's being addressed in this
2	rulemaking, right?
3	MS. FRISBIE: Yes, but I think it
4	was a specific question of on or off the
5	CAWS, so it includes all of it.
6	MR. ANDES: And can you define the
7	north branch barge traffic areas? I'm just
8	not sure exactly the area we are speaking
9	about.
10	MS. FRISBIE: I believe that would
11	be the north branch south of Webster Street
12	which I think is the most far north barges
13	go at this point.
14	MR. ANDES: The second category is
15	main stem, north branch, south branch, and
16	the next category is north shore, north
17	branch channel. Can you explain that?
18	MS. FRISBIE: I'll be honest, these
19	are the names of the trips. So how I would
20	believe that I would interpret it is, the
21	main tem, north branch and south branch are
22	basically trips that covered all those
23	areas. North branch, north shore channel
24	would be, say, putting it at Clark Park on

1 the north branch or River Park on the north 2 branch and going north up into the north 3 shore channel. Where as we have a trip that's called loop the goose, where you can put it in at Clark Park in the canoe launch 5 6 there, paddle downstream and actually loop Goose Island. And there are some years I 8 know we've put in at the dock at North 9 Avenue that we've looked at a photo of, but 10 it depends on the year. But that's what I 11 would guess those mean based on what our 12 canoe trip destinations have been. 13

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MEMBER LIN: Do you know what the reason why to all three the number of trips there has been a big drop?

MS. FRISBIE: Yes. We got competition from the canoe rental companies, and so we didn't have very many Friends' of The Chicago River trips, because many people were renting boats from the canoe livery companies.

MS. DEXTER: Do you have a sense of how many canoeing/kayaking liveries there are?

1 MS. FRISBIE: There is a -- we have 2 a list on the Chicago River, but in river edge locations, Chicago River Canoe & Kayak rents canoes and kayaks from Clark Park, 5 which is at Belmont in the Chicago River, as well as they also rent boats at the Skokie 7 Boat House, the Dan Ridge Rowing Center in 8 Skokie. And then Kayak Chicago rents boats 9 from along the Chicago River at 1500 North 10 Magnolia, and then there's other rentals in 11 the city, Water Riders, The Chicagoland 12 Canoe Base, where you can just go pick up a 13 canoe or kayak and bring it to the system or 14 the Geneva Kayak Center, which I believe is 15 new this year, which also rents boat and the 16 river is pretty close. So those are places 17 people rent boats. 18 MS. DEXTER: Do you have a sense of 19 how many users access the CAWS through 20 these? 21 I was told by the MS. FRISBIE: 22 owner of Kayak Chicago, Dave Olsen, he

thinks he had 10,000 people on the river

last summer. He thinks -- he's opened in

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1 2000, he's been adding by one thousand 2 participants a year. On the record from the June 16th public hearing, Ryan Chew, the 3 owner of Chicago River Canoe & Kayak told this body that he's had 55,00 people on the 5 Chicago River system, the CAWS. And then, 6 in addition, as I mentioned earlier I think I have a list of crew teams. It's high 8 school crew teams, college crew teams and 9 10 clubs, and I have a list of 11 of them with kind of their website descriptions, which 11 12 talks about their activities. I have a niece who actually rows with Lincoln Park 13 14 Juniors, and she says that they are out on 15 the river about nine to ten months of the 16 year, six days a week, two hours a day. So they may not have more than 60 or 80 kids in 17 18 their group, but they are out there a lot, 19 so they count for frequency. 20

HEARING OFFICER TIPSORD: We have to mark exhibits. I appreciate you wanting to get everything on the record, but housekeeping has to come first. "Chicago River Canoe & Kayak Liveries," I assume you

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wanted that marked as an exhibit. If
there's no objection, we will mark that as
Exhibit 268. And then "Crew Teams On The
Chicago River," if there's no objection we
will mark that as Exhibit 269. Seeing none,
it's Exhibit 269. Ms. Meyers?

MS. MEYERS-GLEN: Speaking of crew teams, do you know exactly in addition to all the liveries how many crew teams are actually out on the CAWS?

MS. FRISBIE: I believe there's 11 groups.

MS. MEYERS-GLEN: And are those only in the north shore channel and basically the northern area of the north branch of the Chicago River or are they scattered throughout the CAWS?

MS. FRISBIE: My understanding is that at present there is a group rowing out of Facepoint on the Cal Sag, which is listed here I'm sure. Like the Chicago Rowing Center is on the Cal Sag in Blue Island, and University of Chicago rows out of the location at the mouth of Bubbly Creek.

1	MR. ANDES: Do you know, and perhaps
2	not because it doesn't look like it's not
3	broken out this way on the chart, how many
4	person trips occurred on the upper north
5	branch of the Chicago River upstream of
6	Albany Avenue dam which would be outside of
7	the CAWS?
8	MS. FRISBIE: My belief is that 24
9	percent were on the Skokie lagoons, and all
10	the rest are in the north branch. Not the
11	upper north branch, but in the CAWS, excuse
12	me.
13	MR. ANDES: Okay.
14	MS. MEYERS-GLEN: I'm sorry, if I
15	can have one more follow-up. The Lincoln
16	Park Juniors, you said you were familiar
17	with that, as far as having a relative that
18	crews. Do you know how often they practice
19	or are out on the waterway?
20	MS. FRISBIE: Six days a week from
21_	nine to nine-and-a-half months a year.
22 -	MR. ANDES: When you spoke in the
23	testimony about 2640 people, are we talking
24	being about person trips or 2640 people that

1	participated in the program?
2	MS. FRISBIE: We don't count if it's
3	repeat. So it's person trips.
4	MR. ANDES: And so then that answers
5	the next question. You don't separate out
6	repeaters?
7	MS. FRISBIE: No, we don't separate
8	them out.
9	MR. ANDES: You indicate that you
10	volunteer time rescuing people who fall in
11	the water. Do you feel there is a
12	significant risk of capsizing in the
13	waterways due to deep draft nature of the
14	waterways, lack of points of egress
15	throughout the system, there may not be one
16	where they are as other factors.
17	MS. DEXTER: I object to the
18	characterization of the system as deep
19	drafting and egress, and she can address the
20	question whether she agrees with that.
21	MS. FRISBIE: Well, I don't think
22	there's any more risk of capsizing I
23	guess, I would say I don't think there's
24	more of a chance of falling in the CAWS than

there is anywhere else anyone would paddle.

I personally have kayaked on Lake Michigan which I found terrifying because boats come at you from any direction and you have no way of knowing what's going to happen.

Whereas on the river system, you can see what's happening. I don't -- I think I've said I don't actually believe that the CAWS have a major problem with lack of egress. I

think there's places to get out all over the system. Deep draft nature, if you fall out

of your boat, you get back in your boat or

you hang on to the edge of the boat. Again,

being out on the lake, people are in kayaks

along the lakefront and water is deep, and

so, again, I don't think it's a problem.

MR. ANDES: Let's move on to the next question. You described the Chicago River Flatwater Classic stating, "This canoe and kayak race supported by the U.S. Coast Guard and the Chicago Marine police, gives people a safe opportunity to paddle downtown and interact with the river." What role, if any, do the Coast Guard and the Chicago

Marine police play in the Chicago Flatwater Classic?

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MS. FRISBIE: Well, the Chicago Flatwater Classic is a larger event than just our paddling programs, and so we do planning upfront, which would be, I think, typical for any major event. And the Coast Guard and the Chicago Marine police come to a planning meeting that's hosted before the event in the spring. It's hosted by the Mayor's Office of Special Events. attended by the Chicago Park District because we use park district facilities, the Department of Transportation because we use a dock that they own, as well as the Chinatown Chamber of Commerce because they do something called dragon boat races, which are long boats that you paddle that have dragons on the front. So they do that as well, so it's kind of a coordinated meeting for all of those groups. And the Marine police and the Coast Guard come to that meeting. We review the course, which is the west side of the river, the whole length.

1	And the day of the event they, the Marine
2	police generally have a boat out, and the
3	Coast Guard sends the Coast Guard auxiliary,
4	which I believe are volunteers, and they
5	have one or two votes boats and they serve
6	as traffic cops.
7	MR. ANDES: When you say as traffic
8	cops
9	MS. FRISBIE: Yes.
10	MR. ANDES: what's the scope, you
11	say the whole length of the river?
12	MS. FRISBIE: The race goes from
13	Clark Park, so at 3400 North Rockwell, down
14	to the north branch to the south branch to
15	Ping Town Memorial Park, which is just south
16	of 18th street, so seven miles.
17	MR. ANDES: And I'll skip
18	question B. I think question C addresses
19	the safety question. "How does the level of
20	safety for this event differ from that of
21	paddling that occurs on other days?"
22	MS. FRISBIE: For the Friends' of
23	The Chicago River trips in comparison with
24	the Flatwater, we have a very detailed plan

1 for the Flatwater, but it reflects what 2 anyone would do for a large event. think you could look at it along the lines 3 of -- by involving the agencies that I 5 mentioned, the pre-planning and safety 6 plans, it's kind of like a marathon. 7 a few people out running, they don't need 8 the streets closed. They don't need water 9 stations. Where as a few people canoeing or 10 kayaking, you don't need that either. 11 when you start adding large numbers, 12 suddenly you want to make sure you are 13 paying closer attention.

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MR. ANDES: Let's move on to the next question. You state that 4600 people have participated in the Flatwater Classic and many corporations sponsor the event and field teams of paddlers. When you state that 4600 people have participated, does that mean individuals or person trips?

MS. FRISBIE: Again, it's person trips. We don't know if there's repeats or we don't track that information any way.

MR. ANDES: Do you know what

1	percentage of the person trips are from
2	people employed by or associated with the
3	sponsoring corporations?
4	MS. FRISBIE: How many of the person
5	trips? I don't know. I don't know that.
6	MR. ANDES: I'll skip C. I think
7	we've addressed that issue. How many years
8	has the classic been held?
9	MS. FRISBIE: This fall will be the
10	tenth.
11	MR. ANDES: Do you have a sense of
12	the average number of people that
13	participate each year?
14	MS. FRISBIE: If you divide it based
15	on the number of years we've had so far,
16	it's 511, but really the race varies. The
17	first year we had 120 people, and this year
18	for example, the Boeing Company is doing a
19	special heat, where they are having their
20	corporate headquarters in Chicago, they are
21	having 12 teams, departmental teams race
22	against each other. So that's going to
23	boost the figure this year by another 120
24	people or something.

1	40°	MR. ANDES: Let's move on to
2		question 7. You state that thousands attend
3		these Chicago River and Park District
4		Programs from 2004 to 2007. Do you know if
5		that's total number of individuals or
6		MS. FRISBIE: I would again, it's
7		we don't track the information. But my
8		guess is it's just individuals. The park
9		district does all the promotion and booking
10		for those. We just run it as a subcontract.
11		MR. ANDES: You are guessing it's
12		probably person trips?
13		MS. FRISBIE: I'm guessing person
14		trips.
15		MR. ANDES: And where do those
16		paddling programs take place, on the main
17		stem?
18		MS. FRISBIE: I have a chart of that
19		as well. We'll pause and let it get entered
20		this time.
21		HEARING OFFICER TIPSORD: I've been
22		handed Friends' of The Chicago River,
23		Chicago Park District Canoe Trips, 2004 to
24		2008. It's another chart. If there's no

- 1 objection, we will mark this as Exhibit 270. 2 Seeing none, it's Exhibit 270.
- 3 MS. FRISBIE: So you can see by looking at this chart that 75 percent were in the CAWS, and the balance were at park district parks in their lagoons.

MR. ANDES: And the ones in the CAWS were in the north branch and north shore channel?

MS. FRISBIE: Yes.

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MR. ANDES: Going to question 8. You list the number of amenities and plans the Chicago River have called for. Can you discuss the amenities from this list that are materialized on the CAWS?

MS. FRISBIE: Yes. I think to start with a good representation of what's happening is the plans and activities of the Chicago Park District and the City of Chicago. The City of Chicago gave me a list of projects that they've spent \$73 million dollars in, I think, the last ten years on river front development projects. And the park district has spent over \$22 million.

We have a list of these projects with the amounts of money and locations.

MS. DEXTER: This first document I'm handing to the hearing officer is the -there's actually two, two documents, and this is the list from the City of Chicago that Margaret referred to, and then an example of one of the projects on that list or two projects on that list, that she'll discuss in a second to make that make sense.

HEARING OFFICER TIPSORD: We will -
I've been handed a November 7, 2008, letter

to Margaret Frisbie from Cathy Hudzik,

H-U-D-Z-I-K, assistant to the mayor, which

we will mark as Exhibit 271, if there's no

objection. Seeing none, it's Exhibit 271.

And then also there's a picture, both sides,

and there's the marking on it is OWP/P, and

it appears to be a picture in front of -
I'm not sure. Marina Towers is on the back

side. Thank you. We will mark that as

Exhibit 272, if there's no objection.

Seeing none, that's Exhibit 272.

This is also a picture of Bubbly

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1	Creek, May 15, 2008, City of Chicago
2	Department of Planning and Development,
3	Department of Environment, The U.S. Arm Corp
4	of Engineers, the Chicago Research Site
5	Group Design Group, LTD. If there's no
6	objection we will mark that as Exhibit 273.
7	Seeing none, it's Exhibit 273.
8	MS. DEXTER: And a list of park
9	district projects that Margaret referenced
10	is the next document and one example is Ping
11	Town Park.
12	HEARING OFFICER TIPSORD: The
13	Chicago Park District memorandum dated
14	November 8, 2008. I will mark as
15	Exhibit 274, if there's no objection.
16	Seeing none, it's Exhibit 274.
17	And Ping Town Shoreline
18	Improvements Schematic A, we will mark as
19	Exhibit 275, if there's no objection.
20	Seeing none it's Exhibit 275.
21	MS. WILLIAMS: Do you mind repeating
22	which ones are which.
23	HEARING OFFICER TIPSORD: Let me
24	start from the beginning. 271 is the

November 7, 2008 letter. 272 is the picture that on one side has the Marina Towers. 273 is the Bubbly Creek, May 15, 2008. And 274 is the Chicago Park District memo. And 275

is the Ping Town Shore Line Improvements.

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MS. FRISBIE: So I just wanted to hand these out because partly, forgive all the attachments, I think it's very visual what's happening on the Chicago River system now. So you need to see what people are doing. But in direct answer to the questions about the amenities, recreational amenities, bike paths. The Chicago River Agenda, which we also have a copy of and we'd like to hand out, says the City of Chicago has built 12 miles of multi-use trails, and their goal is to complete a continuous trail throughout the entire city which could then connect to trails outside the city. Boat docks, paddling launches, there are many private docks that I mentioned. There are public docks at Oakton Street, Lincoln Village, River Park, Clark Park, Weed Street, North Avenue, at Western

1 Avenue in Alsip. There's more docks on the 2 Circle Tour. I can't name all the names of where they are. Fishing has been increasing. River Park has a fishing 5 station. Canal Origins has fishing. Actually we served on Mayor Daley's fishing committee. This summer they are going to do 8 fishing along the main stem of the Chicago River pedestrian access. I think the 10 charismatic mega project is the Chicago 11 River walk, which is under construction 12 right now, at Michigan Avenue and Under 13 Wabash which will connect the lakefront bike 14 path to as far as State Street. Under 15 bridge connections, Michigan Avenue, Wabash, 16 Peterson, Foster, Peterson, these are city 17 projects that I've mentioned.

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Bird watching, the City of
Chicago has a brochure that they hand out
that mentions Lake Calumet for a great place
for birding. Recreation, Flatwater Classic,
Dragon Race, as I mentioned, fishing
birding, paddling rentals, restaurants, play
lots, Erie Street Park and Ping Town Park

are river front parks with play lots that are new. Water trails, I think that will come up later with Openlands' testimony.

There's regattas. The high school crew teams have regattas on the river. There was a -- the Chicago Rowing Center hosted a regatta on the Cal Sag in 2007 that was called the Cal Sag Collegiate Regatta that had students come to the Cal Sag and race from the University of Minnesota, University of Michigan, University of Wisconsin, Notre Dame, Indiana, Iowa and Michigan state. So that would just be recreation.

Habitat, theres' been a lot of habitat and planting. I've got examples I could use is North Side College Prep on the North Side, Ronan Park, River Park, Canal Origins Park, the new park that's under construction east of Canal Origins, which is again at the mouth of Bubbly Creek.

Facepoint in Blue Island is another very good example of where habitat projects are under which. We did a habitat project,

Michigan Avenue Fish Hotel, which is a

floating wetlands structure that provides

habitat downtown where clearly no one is

going to take out the river, concrete walls

where boats dock and put in habitat there,

so we built habitat there as a demonstration

project.

Residential and commercial amenities, Kingsbury Park is a new housing project, Kinzie Park, Facepoint again in Blue Island, River Bend, River Walk.

Restaurants, Fulton's on the river. I mean some downtown ones.

O'Brien's, Cyrano's, Flatwater, Japonnais,
Green Dolphin. There's a new Whole Foods that's opening on the east channel of the north branch sometime in May. They are going to have restaurants along with their outdoor seating. And then south there are others, the River Dell Marina, which is on the Calumet I believe. Lawrence's Fishery on the south branch which is expanding right now with river edge seating. And I also have an article from the Chicago Sun Times

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1	from 2007 that lists a series of restaurants
2	that are on the Calumet system, and how you
3	can boat there. Actually, it's meant as a
4	pub crawl, which someone said, I don't think
5	they would say that if people were in cars.
6	But, anyway, so I think that that gets the
7	point across.
8	The other thing I believe that
9	was on my list was effluent disinfection
10	which we're talking about right now.
11	MR. ANDES: And all of these
12	activities have occurred without
13	disinfection?
14	MS. DEXTER: Can we stop and enter
15	the exhibit she referenced.
16	HEARING OFFICER TIPSORD: If there's
17	no objection, I will mark the Chicago River
18	Agenda as Exhibit 276. Seeing none, it's
19	Exhibit 2 76.
20	MS. DEXTER: And then we have the
21	Sun Times article that Margaret just
22	mentioned
23	HEARING OFFICER TIPSORD: And Sun
24	Times article "Neighborhoods with Mark

Konpel," From Friday August 10, 2007 in the
Chicago Sun Times. If there's no objection
we'll mark that as Exhibit 277. Seeing
none, it's Exhibit 2 77.

MR. ANDES: I'm going to move on to question 10. In the testimony you discuss comments have been followed in the rulemaking as a result of the survey that Friends conducted. Do you know how many of the people that filed comments in the rulemaking are members or employees of Friends' or other groups who are participating in the rulemaking?

MS. FRISBIE: Yes, we do have that information. You'll be pleased to know we have another pie chart. And as of a few weeks ago, there were 180 individual letters, over 20 stakeholder groups, elected officials, including Governor Pat Quinn, U.S. Representatives, Jesse Jackson, Jr., Mark Kirk, Mike Quigley. So_we made this pie chart that shows the percentage that our Friends members. None of them are Friends employees. And the pie chart doesn't

	raye 43
1	actually have the actual number, but you get
2	the sense that majority of these people are
3	not members.
4	HEARING OFFICER TIPSORD: I've been
5	handed a pie chart entitled "Public Comment
6	Friends of the Chicago River Members Versus
7	Nonmembers 2009. If there is no objection,
8	we will mark that 278. Seeing none, it's
9	Exhibit 278.
10	MR. ANDES: And nonmembers include
11	people who are members of other groups?
12	MS. FRISBIE: I have no way of
13	tracking that information.
14	MR. ANDES: Politicians, others
15	MS. FRISBIE: Yes.
16	MR. ANDES: everybody who isn't a
17	member of Friends?
18	MS. FRISBIE: Correct.
19	MR. ANDES: I'm going to move on to
20	question 12. Knowing what to do about CSOs,
21	other bacterial sources into the waterways,
22	physical conditions of the waterways, you
23	feel that swimming and wading in the CAWS,
24	for example, would be a safe activity for

children or even adults if only the District
were to disinfect the effluents?

MS. FRISBIE: Well, I'm not an expert in that area, and I would not like to comment. However, I do believe that people are using the CAWS in all kinds of ways. I have a sample series of photos of people wading on the CAWS in places that you can do that.

HEARING OFFICER TIPSORD: I've been handed "Wading On The CAWS, Testimony of Margaret Frisbie." If there's no objection, we'll mark this as Exhibit 279. Seeing none, it's Exhibit 279.

MS. FRISBIE: So in answer to your question, I disagree that the river is -the physical condition is a limitation. I do think that the bacteria, if 70 percent of the water is from sewage effluent as we've heard, I think clearly we need to take that into account. And if the bacteria is present from sewage pathogens, the pathogens should be removed, if that's possible.

If you look at "Wading On The

1 CAWS," you can see that there are plenty of places that I described earlier where you 3 can access the CAWS in its public facilities. It is just along the riverbank. If you look at what we've handed out. 6 first picture is of the Clark Park Canoe launch. Those are people getting into a 8 canoe. At North Park -- I'm sorry, that's 9 River Park on the north branch. 10 people fishing. This is typical. You see 11 this there all the time. This is downstream 12 from the Waste Water Treatment Plant on the 13 North Side. At the mouth of Bubbly Creek, 14 these are kids fishing, which is this third 15 photo. And then another picture of kids 16 wading on the Sanitary and Ship Canal. Most 17 of these photos are from Friends' archives, 18 but the last photo Dave Salzman who took 19 this photo and lent it to us. I think it's 20 important to distinguish how people are 21 using the river, and whether or not we want 22 to continue to put them at risk. 23

MR. ANDES: And so do you think people are at risk?

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1	MS. FRISBIE: The people wading?
2	MR. ANDES: Yes.
3	MS. FRISBIE: Well, again, I'm not
4	an expert in this area, and I think people
5	have answered the question about risk.
6	MEMBER LIN: The kid wading and
7	swimming, do you happen to know, do you know
8	if they get any sickness?
9	MS. FRISBIE: No, I don't know the
10	people in the photos.
11	MR. ANDES: Let's move on to
12	question 13. In an August 12, 2008 article
13	in Medical Reports Chicago you were quoted
14	as saying that the first flush of a storm is
15	so polluted that it's toxic. In light of
16	this statement would it be fair to say that
17	even if the waste water treatment effluents
18	was disinfected, you would still be
19	concerned about recreational exposure in the
20	CAWS due to pathogens from storm water
21	runoff and combined sewer overflows?
22	MS. FRISBIE: Well, according to the
23	Chicago River Agenda, which was published by
24	the City of Chicago, on page 10 it says in

the combined sewer area actually TARP captures the first flush. So in the areas of the river that we're discussing, it's my understanding that it's captured by TARP.

That wouldn't be true in the areas where the

That wouldn't be true in the areas where the other sewers are not combined.

MR. ANDES: Okay. So are you at all concerned about recreational exposure to storm water runoff and combined sewer overflows?

MS. FRISBIE: Well, we believe that improving the water quality of the river is a step by step process. If you look back at the plans, if you look back at what the park district and the City has done, it's taken steps. So we think that we need to finish TARP. And my understanding is that TARP to date captures 85 percent of the combined sewer overflows from when the first tunnels went on line in the mid 80's. We need to manage_storm water better. I know the City of Chicago has protocols or new ordinances about storm water. The MWRD has become the storm water management for Cook County. So

1 they are actively working on storm water management plans right now. I think 3 disinfection is the natural next step, and 4 what we've seen -- in fact, we have a chart that shows the fish population in the Chicago River that was published by the Chicago Metropolitan Water Reclamation District that shows in the 70s there were 9 ten species of fish in the CAWS. And as of 10 2005, there were nearly 70. And so I think 11 what we're talking about is a progression. 12 It's not an all or nothing. It's a just a 13 progression, and that disinfection is the 14 natural next step that compliments the work 15 on TARP already has achieved, the future work on TARP, as well as managing storm 16 17 water. 18 MR. ANDES: So this improvement has 19 taken place without disinfection? 20 MS. FRISBIE: Yes, but I think you 21 could characterize it differently. 22 MR. ANDES: You believe that the

bacteria concentrations in the effluents
from the treatment plants impact fish

1	species?
2	MS. FRISBIE: I'm not an expert in
3	that area. I don't want to get into that.
4	But what I was talking about is was TARP,
5	not disinfection.
6	HEARING OFFICER TIPSORD: If there's
7	no objection, we will mark the chart "Total
8	Number of Fish Species Collected From The
9	Chicago and Calumet River System between
10	1974 and 2005" as Exhibit 280. Seeing none,
11	it's Exhibit 280.
12	MR. ANDES: That's all I have.
13	HEARING OFFICER TIPSORD: Thank you
14	very much. The IEPA, do you have any
15	questions?
16	MS. DIERS: Stephanie Diers for the
17	Illinois EPA, and I'm going to ask you our
18	pre-filed questions to start with.
19	Question 1, on page 3 of your
20	pre-filed testimony you state, "Over the
21	 past 11 years these guides have taken at
22	 least 2640 people canoeing on the north
23	shore canal, north branch of the Chicago
24	River, main stem, south branch, down Bubbly

Creek and along the Chicago Sanitary and Ship Canal." What information do the guides receive on the water quality for these waters? MS. FRISBIE: We distribute we		5
receive on the water quality for these waters?	1	Creek and along the Chicago Sanitary and
4 waters?	2	Ship Canal." What information do the guides
waters.	3	receive on the water quality for these
MS. FRISBIE: We distribute we	4	waters?
	5	MS. FRISBIE: We distribute we

MS. FRISBIE: We distribute -- we train the guides at the spring, and we give them the details that are listed in the CAWS health brochure that we handed out earlier. I forget the exhibit number, forgive me.

MS. DIERS: Do you know if any of these guides have gotten sick from contact with the water?

MS. FRISBIE: I do not know that.

MS. DIERS: With respect to -- this will go to question two, but it's with regard to Exhibit 276, the Chicago River Agenda. Do you know who authored this document?

MS. FRISBIE: It was published by the Mayor's Office Of The City of Chicago and released in June of 2005. We actually have copies to go -- we already passed it out. So it was authored and distributed by the City of Chicago and kicked off with a

1	press conference by the mayor.
2	MS. DIERS: Question 3, "In your
3	pre-filed testimony you referred to a state
4	sanctioned water trail." Can you explain
5	what this is?
6	MS. FRISBIE: What I was referring
7	to was a project that will be discussed
8	further by Openlands on May 20th I
9	understand, but there is a brochure that
10	shows water trail maps, and it says it's a
11	join project of Openlands, the Illinois
12	Paddling Counsel and the Illinois Department
13	of Natural Resources.
14	MS. DIERS: And just one follow-up.
15	We were talking about the different canoe
16	facilities that do rentals. Do you have any
17	figures of revenues that are coming into the
18	area based on these canoe rentals?
19	MS. FRISBIE: I do not.
20	MS. DIERS: Thank you. That's all I
21	have.
<u>_</u> 22	HEARING OFFICER TIPSORD: Are there
23	any other questions for Ms. Frisbie?
24	MS. DEXTER: I have a couple

- follow-ups from the pre-filed questions.
- The pre-filed question 3. I'm going to
- start with the District's pre-filed question
- 4 3. On page 2, your last paragraph, you
- state that over the years you've worked to
- 6 make the Chicago River the natural
- 7 recreation and Chicago asset that it
- deserves to be. And subpart B is, "What is
- your definition of natural?"
- MS. FRISBIE: Well, I don't believe
- the distinction between manmade and natural
- is relevant here. The river is, as I said
- earlier, the MWRD has counted 70 species of
- fish. Someone who is an active birder or
- involved here with the Chicago Autobaun has
- mapped out 60 species of birds. I have seen
- beavers, muskrats, mink. The Forest
- Preserve District of Cook County says
- there's otters. So I think if there's
- nature there, it's natural. It doesn't
- 21 matter who made it.
- MS. DEXTER: Do you have any
- documents that back that up?
- MS. FRISBIE: Yes, I have a list of

birds of Chicago River separated by branches. It's not entirely -- it's not 3 based on the CAWS. It's something I received in a lecture, as well as "Fishes of 5 The Waterway System" that was given to us by 6 an employee of the Army Corps of Engineers who is a fish biologist, and then third, a 8 small snapshot from Friends of the Chicago 9 River archives showing -- is it all right if 10 I go ahead -- downtown a muskrat swimming in 11 the main stem. It lived in our fish hotel a 12 year ago summer. Here we go. So that's the 13 muskrat. You can see the Wrigley Building 14 in the background. This is a Monarch 15 butterfly that hatched on a milk weed 16 planted that was planted on the Friends of 17 The Chicago River fish hotel. This is the 18 guide who rented river bikes from River City 19 several summers, and he's holding a snapping 20 turtle. This is at River City on the south 21 branch. And this is an endangered black 22 round night heron fishing at the north 23 branch dam at River Park on the north 24 branch. And this is a gentleman fishing at

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1	the turning basin at North Avenue on the
2	north branch, and I think that's a carp, but
3	I'm not sure.
4	HEARING OFFICER TIPSORD: On the
5	Birds of the Chicago River let me ask
6	this. It appears there's shading. Is that
7	an indication that they were found on the
8	Chicago River?
9	MS. FRISBIE: Yes. Forgive me
10	HEARING OFFICER TIPSORD: If there's
11	no objection, we will mark "Birds of the
12	Chicago River" as Exhibit 281. Seeing none,
13	it's Exhibit 281.
14	"Fishes Of The Chicago Waterway
15	System," if there's no objection, we will
16	mark that as Exhibit 282. Seeing none, it's
17	Exhibit 282.
18	MR. ANDES: Can I ask again, what is
19	the source of that?
20	MS. FRISBIE: The Fishes of the
21	Waterway was sent from a person, from Frank
22	Veraldi who gave it to one of the Friends of
23	The Chicago River staff. I don't remember
24	the context of why she gave it. I've had it

	Page 61
1	in a file for the last couple years, but it
2	was given to Cynthia Fox from Frank Veraldi,
3	who works for the Army Corps of Engineers.
4	MS. FRISBIE: I can get that
5	information because I will see him on
6	Saturday at Chicago River Day. If we'd like
7	the source, I could get that.
8	MR. ANDES: We would.
9	HEARING OFFICER TIPSORD: And then
10	we had "Wildlife on the CAWS." We will mark
11	as Exhibit 283, if there's no objection.
12	Seeing none, it is Exhibit 283.
13	MS. DIERS: I know you didn't
14	prepare the exhibit. Is it intended to be
15	from personal observation, a fish they
16	caught?
17	MS. FRISBIE: I honestly don't know.
18	Fish testing? I don't know. I'm sorry, I
19	don't.
20	HEARING OFFICER TIPSORD: Can I ask
21	have you looked at the "Fishes Chicago
22	Waterway System" admitted as Exhibit 283,
23	and compared it to the total number of fish
24	species which we admitted as 280 to see if

they are consistent? MS. FRISBIE: I did not. That's a 3 good question. Although I think -- yeah, I don't know. MS. DEXTER: Thanks for your patience. I think we are done. HEARING OFFICER TIPSORD: One last chance for any questions for Ms. Frisbie. Let's take a ten-minute break. 10 (Whereupon, a break was taken 11 after which the following 12 proceedings were had.) 13 HEARING OFFICER TIPSORD: Let's go 14 ahead and go back on the record. Can we 15 have you introduce yourselves. 16 MR. BAMONTE: My name is Tom Bamonte. 18 MR. QUAIL: I'm John Quail with 19 Friends of the Chicago River. 20 HEARING OFFICER TIPSORD: Can we 21 have Mr. Bamonte sworn in. 22 TOM BAMONTE 23 having been first duly sworn, was examined and testified as follows: 24

HEARING OFFICER TIPSORD: If there's no objection, we will admit Mr. Bamonte's testimony as Exhibit 284. Seeing none, it's Exhibit 284. And did you have anything or should we go directly to questions? With that Mr. Andes, go ahead.

MR. ANDES: Good morning. We'll start with question 1. I'll rephrase it a little bit since we're not really not talking about inviting. What safety protocols does your organization employ when its members use the CAWS?

MR. BAMONTE: The safety protocols that the paddling community uses is the same paddling protocols we use in other bodies of water. There's nothing special about in terms of a paddling perspective. We urge paddlers to wear a PFD, wear appropriate immersion gear, if necessary, such as a wet suit or dry suit, to carry some communications equipment, a cell phone or marine radio, to leave a float plan with a family member, and, again, the standard paddling safety protocols.

MR. ANDES: I believe there were

some additional protocols discussed this

morning in a brochure on Chicago area

waterways health precautions. Do your folks

follow these protocols as well?

MR. BAMONTE: You are talking about hygenic as opposed to paddling, is that what you are referring to?

MR. ANDES: That includes general precautions about avoiding contact with the water. I understand these are specific to the Chicago area waterways.

MR. BAMONTE: The standards that we would follow, just general practice, would be -- there is a general awareness that one should avoid full body immersion, if possible, but paddling inevitably requires contact with the water. You have contact through your paddles, as you are sweeping side to side with your boat, your hands are often getting in the water. There's water that runs down the paddle shaft. When you get in and out of your boat, you are often putting your hands on the bottom and

immersing your hands in the river water.

There's a splash that comes on your clothing and your body itself. So, again, standard kind of community practices, don't get full body immersion, but it's inevitable that you

are going to get wet.

2.

MR. ANDES: Do you avoid certain areas due to barge or motorized boat traffic, absence of safe entry and exit locations or other issues incompatible with recreational use?

MR. BAMONTE: There's no stretch of CAWS that the kayakers consider off limits because of those factors. Indeed, there are entrance and exit points throughout the CAWS system, and anywhere there is water that can float a kayak, kayaks pretty much belong. And so I analogize it to small cars and big trucks on an expressway. Both must utilize safety protocols. For paddlers it is to stay close to the bank and keep an eye out in front of you and behind you. And beyond that we certainly hope that the barge operators and other crafts keep a careful

eye out for us. But it's very much standard practice. Keep an eye out, stay fairly close to the bank, and the advantage of a Kayak as a small craft and the confined space of the river on the CAWS system is it's relatively easy to pull off and get close to a bank where you are safe from a passing boat.

MR. ANDES: Do you avoid certain times such as during or following wet weather events?

MR. BAMONTE: I would say there's some awareness in the paddling community about the combined sewer overflow CSO events. I think a fair number of experienced paddlers subscribe to the MWRD's website and choose not to paddle at the time of the CSO. But the information is not always -- doesn't always appear to be reliable. And so I would say that other than a generalized sense of not paddling during CSO events, paddlers access the river or the system, you know, pretty much at all times.

1 MR. ANDES: I'll skip question C
2 then. In number two, even if the treatment
3 plant effluent was disinfected, would you
4 recommend that people, particularly
5 children, should avoid exposures to the CAWS
6 due to pathogens from storm water run-off or
7 combined sewerage overflows?

MR. BAMONTE: I'm a paddler, not a public health person. Without knowing what the pathogens are, the levels, the risk factors, I just don't have the background or experience, and I wouldn't want to speculate.

MR. ANDES: As to question 3 on the protocols you employ, I believe you've already discussed the generally applicable protocols that are used for safety?

MR. BAMONTE: Yes, there is -- I would, you know -- there's safety equipment. There's -- which, again, that would be communications gear, life jackets, et cetera. There's safe paddling practices, which are to, again, keep an eye out, to know your limits, to always keep a good

1	sense of environmental conditions,
2	approaching storms, et cetera. And then
3	there's communications, which is letting
4	people know that you are on the CAWS system,
5	when is your expected time of departure,
6	when is your expected return, and carrying
7	communications equipment. That's one of the
8	benefits of CAWS, is that you're in for the
9	most part an urban environment. You have
LO	cell phone coverage. You have the ability
11	to summon help in a way that is often not
12	available in open bodies of water such as
13	Lake Michigan.

MR. ANDES: I'm going to skip question 4 because I think we've already talked about barge traffic. On page 5 of your testimony, you stated that the river is heavily used by novice paddlers because it is more protected than Lake Michigan waters. I'll rephrase the first question.

Are you at all concerned with these novice paddlers sharing the waterways with barges, power boats, tour boats?

MR. BAMONTE: You are always

1 concerned with novice paddlers. You want to make sure that they are in an appropriate 3 environment. From a paddler's perspective, the CAWS system is actually the preferred 5 environment for novice paddlers. For the reasons that we set out in the paddling community statement that we filed last April, the CAWS is generally a much safer 9 paddling environment than, say, Lake 10 Michigan, inland lakes or free flowing 11 rivers. It's protected from the wind, banks 12 are nearby. There's often the opportunity 13 to summon help from passer-byers on bridges 14 or along the banks. You have, you have cell 15 phone coverage so you can summon help. 16 There are plenty of opportunities to --17 everything from small, I would say mini 18 beaches. All you need is about three feet 19 to get out of your kayak and stand on shore. 20 There are often ways you can grasp ladders 21 and other things to steady yourself at the 22 waters's edge, say, when a barge is passing. 23 The water is warmer, generally than Lake 24 Michigan, which is an important factor.

1	Boat wakes are fewer and much less than
2	let's say on Lake Michigan. Waves are less
3	on Lake Michigan. So I would say that the
4	majority of paddlers in the Chicago area get
5	their start on the CAWS system rather than
6	Lake Michigan. So if you are asking me as a
7	paddler would I rather see a novice on the
8	CAWS or Lake Michigan, I would say CAWS
9	actually. So in that sense I'm less
10	concerned about novice paddlers on the CAWS
11	than I am, say, in the open waters of Lake
12	Michigan or the busy waters of inland lakes
13	say as the Fox lake with lots of boat
14	action.
15	MR. ANDES: There's actually less
16	chance of it capsizing?
17	MR. BAMONTE: Yes, on the CAWS than
18	on, say, Lake Michigan.
19	MR. ANDES: Have you experienced
20	full or suction of small or hand powered
21	crafts toward a barge?
22	MR. BAMONTE: You know, I have not
23	experienced I saw that in pre-filed
24	questions, and I was frankly scratching my

head at that question. We have a very

active paddling discussion group through my

organization, the Chicago Area Sea Kayakers

Association. Never in all the years it's

been up has anyone mentioned any unusual

water conditions or passing vessel issues on

the CAWS system. So I've had no personal

experience of any suctioning effect and I

have not heard of such effects on CAWS

vis-a-vis small vessels like kayaks.

MR. ANDES: Let's move to the question six, and I'll start with B -- well, first, on page five it stated, "I hope IPCB will establish better water quality standards like kayakers that have extensive bodily contact with river water each and every time they paddle in the river. Do you believe that the proposed standard or disinfection of 400 fecal counts for 300 milliliters will make the water safe for recreational paddlers?

BAMONTE: I don't have the -= I am not a public health expert. I don't have the background, but common sense suggests to

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1	me as a paddler that I would feel much
2	better paddling in CAWS, and I think the
3	paddling community would grow exponentially
4	if the public knew that a major source of
5	water flow has been disinfected. As I
6	understand it occurs in most other
7	metropolitan areas.
8	MR. ANDES: So have you looked at
9	the risk from the treatment plants relative
10	to, say, combined sewer overflows or storm
11	water which would not be addressed by this
12	rulemaking?
13	MR. BAMONTE: I have not done such
14	an assessment.
15	MR. ANDES: So you don't know how
16	much less risk there would be if the
17	treatment plants were to disinfect?
18	MR. BAMONTE: That's beyond my
19	candor here as a witness.
20	MR. ANDES: I'll skip down to
21	question G. Does your association take any
22	action to inform recreational paddlers that
23	the river water is currently not safe due to
24	direct or indirect exposure?

1	MR. BAMONTE: We have no specific
2	guidelines vis-a-vis paddling on the CAWS
3	system.
4	MR. ANDES: That's all I have.
5	HEARING OFFICER TIPSORD: Are there
6	any other questions for Mr. Bamonte?
7	MS. WILLIAMS: I have just one
8	follow-up questions. Good morning, Mr.
9	Bamonte. I'm Debra Williams from the
10	Illinois EPA, and I believe, I want to try
11	to paraphrase your testimony in response to
12	one of Mr. Ande's questions. Correct me if
13	I'm getting it wrong. I think he asked you
14	if there were other areas that you or
15	members of your association avoid, and I
16	believe you said no.
17	MR. BAMONTE: Let me clarify.
18	Paddlers view the entire CAWS system as an
19	attractive and viable paddling environment.
20	I have personally paddled most of the
21	system. I would say that there's extremely
22	heavy interest in use on the north shore
23	channel down through the river into the loop
24	to Ping Town Park. There's an active group

of --MS. WILLIAMS: Can you explain what 3 you mean by the loop? MR. BAMONTE: The downtown area, the 5 loop, the downtown area. 6 MS. WILLIAMS: I thought you were referring to --8 The loop, it's tough MR. BAMONTE: 9 jumping into the rulemaking not knowing the 10 terminology. Through the downtown area, a 11 popular paddle, for example, is to come down 12 through Clark Park and go through the lochs 13 and come back. There's more paddling 14 downtown inspired in part by the Flatwater 15 Classic down to the Ping Town area. I have 16 paddled, and I know others who have paddled, 17 continued down the sanitary canal to, I 18 think there is a take out at a currently 19 deserted boat launch about ten miles south 20 of there. There was paddling --21 MS. WILLIAMS: Do you know if that's 22 the Summit? 23 MR. BAMONTE: I believe that's the

24

Summit.

That's a popular paddle. Bubbly

Creek is until recent work there was known

as a launch site. Kind of a rough launch

site but paddlers were launching from there.

The Calumet area, there's a launch on the

5 Calumet River. You go through the lochs

into lake Calumet, that's a popular paddle.

In fact, my organization hosted a paddle

8 this past weekend from Calumet Park in

through the Calumet Harbor. I don't know if

they made it through the lochs and into the

Little Calumet River, but again --

MS. WILLIAMS: When you say lochs in

this context are you talking about the

O'Brien's --

MR. BAMONTE: I believe they are the

O'Brien locks.

MS. WILLIAMS: Why don't I show you

this map. I'm showing the witness a map

kind of a proposed recreation use

designation that's Exhibit 27. It was also

attachment H to the Agency's proposal. And

what I'd like to ask you is, if this map,

there are different colors used to designate

different recreational use designations

1 proposed by the Agency? MR. BAMONTE: How did you know that I was partially color blind. Can we go by 3 location? MS. WILLIAMS: Absolutely, we are going to --6 MR. ANDES: Can we have copies? 8 MR. BAMONTE: Can you have copies of 9 Exhibit 27. 10 MR. ANDES: I don't know what you 11 are referring to. I just don't have that 12 handy. 13 MS. WILLIAMS: We stopped bringing 14 the giant ones. 15 MR. ANDES: I'll try to remember it. 16 MS. WILLIAMS: All I'd like to ask 17 you is, on this map in yellow are marked the 18 areas I'm tracing with my hands that are 19 designated as incidental contact recreation, 20 and I believe all the areas that you've just 21 identified are within that yellow. However, 22 at the, from the confluence of the Chicago 23 Sanitary and Ship Canal and the Cal Sag 24 Channel to the O'Brien's locks and dam is

	i age 77
1	designated as an area as brown, which has
2	been proposed for designation as
3	nonrecreational by the Agency. Are you
4	aware of any kayaking that occurs in this
5	area?
6	MR. BAMONTE: I believe there is.
7	There is kayaking, and I know some members
8	of my club have done paddles on that
9	stretch.
10	MS. WILLIAMS: Have you personally?
11	MR. BAMONTE: I have not personally.
12	MS. WILLIAMS: Have you seen anyone
13	yourself?
14	MR. BAMONTE: I have not personally
15	seen anyone on that stretch. I have little
16	occasion to go to that area quite frankly,
17	but the statement that we filed last April
18	had paddling clubs, about a dozen paddling
19	clubs, some of them are more focused in that
20	area, and I believe there is paddling that
21	does go on in those stretches.
22	MR. ANDES: Are you aware of any
23	boat launches or other designated intake and
24	egresses in the areas?

MR. BAMONTE: Personally, no,

because it's not a stretch that I personally

paddled.

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MS. WILLIAMS: Thank you very much.

MS. DEXTER: When you paddle on the CAWS, do you act differently than when you paddle when there's sewage?

THE WITNESS: Well, kayaking is a very wet sport, and what we commonly do is we do rolls, we practice rescues, basically, what you do when you fall out of your boat. We have a mentorship program where we try to train each other how to get back in your boat quickly and effectively. When you paddle on CAWS, there's such a kind of community sense, you don't want to go there, and it means that the paddling experience is only partial because, again, you are just literally paddling, but you are avoiding the kind of full body contact, play, safety training, whatnot, that's very much a part of the paddling sport.

MS. DEXTER: Thank you.

MR. ETTINGER: Can you tell us what

a roll is?

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MR. BAMONTE: A roll is something called an Eskimo roll. It's a common self-rescue technique. That's kind of the golden rule for kayakers is try not to get out of your boat, and what happens is when you tip over, either accidentally or much more likely on purpose, then you are under your boat and you execute a technique and you roll back up. That means you are under water for five seconds. It means that you are not -- you don't have full body immersion, which is important in cold water. You want to avoid getting your full body in, and you are in your boat. So it's a very quick, safe, fun thing, and what kayakers do, it's almost like water ballet when we go out and practice in appropriate water, we'll roll. We'll do things that are known as skulling, which is lying in the water and just paddling so you can keep your line next to your boat and you roll back up. None of those things we do on the CAWS system because of the water quality concerns that

1 you are addressing.

MR. ANDES: So there are ways of

having fun in other water bodies that you

try not to do in the CAWS?

MR. BAMONTE: Correct.

MS. DEXTER: I actually have one more follow-up. How many people are represented by the clubs that signed the letter that you submitted to the Board last April?

MR. BAMONTE: I can't speak

precisely. My organization has 100 paying

members. We have a Yahoo group that has 400

subscribers. We have a blog that gets 100

hits a day. We are just one organization.

We are not the largest one. There's the

Illinois Paddling, there's Prairie State

Canoeists, a very active group with

literally thousands of person trips per

year. There's Prairie Coastal Paddlers.

There's rowing organizations that you've

heard about earlier today. Hundreds, if not

thousands, of people are defining themselves

as paddlers and have paddling as their

primary form of exercise and recreation.

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MR. ANDES: Mr. Bamonte, as to safety precautions earlier, you talked about the fact that they were basically the same on the CAWS as the one you generally practice, correct?

MR. BAMONTE: Correct.

MR. ANDES: As to those ways of having fun or playing around that you try not to do on the CAWS, do you have any kind of specific direction to people not to do those things?

MR. ANDES: Well, it's both fun and safety. Those things we practice, rolls, skulling, self rescues. It's fun, but it's also safety development. Again, the general approach is, don't do those things on the CAWS that you would do in other bodies of water, and that means that the support is incomplete on the CAWS for that reason, and it also inhibits the development of the safety skills that make us safer paddlers.

MR. ANDES: But you don't have any written directions to people not to do those

things? 1 2 MR. BAMONTE: Correct, there are no 3 written directions that say don't do it. And in fact, we would do it if you are a paddler with a roll and something goes wrong in the river, you are better off rolling than coming out of your boat, but in terms 8 of practice, that's something that we as 9 private paddlers don't do, and the 10 commercial outfitters like Kayak Chicago and 11 others, my observation is that they also 12 direct their clients to avoid full body immersion. So their clients are not getting 13 14 the full immersion in the sport, if you 15 will. 16 HEARING OFFICER TIPSORD: Anything else for Mr. Bamonte? Thank you very much 18 for your testimony. 19 Mr. Ford, are you ready to go or 20 do you need some time? 21 (Brief recess taken, after which 22 the following proceedings were

had:)

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1	JAMES A. HUFF
2	having been first duly sworn, was examined and
3	testified as follows:
4	HEARING OFFICER TIPSORD: If we
5	could go back on the record. And we're back
6	on the record. And could we have Mr. Huff
7	sworn in, please continue, and we will enter
8	the pre-filed testimony of James E. Huff
9	along with the CD Rom as Exhibit 285, if
10	there's no objection. Seeing none, it's
11	Exhibit 285. And this is the testimony that
12	was filed on March 25, 2009 and it replaces
13	the previously filed testimony.
14	MS. DIERS: It does replace it?
15	HEARING OFFICER TIPSORD: Yes.
16	Seeing no objection, it's Exhibit 285.
17	MS. DIERS: Madam Hearing Officer, I
18	don't have an objection to Mr. Huff's
19	testimony, but I did notice that I had
20	printed his testimony off from the Board's
21	website, and then of course we received a
22	hard copy from Mr. Ford, and there are some
23	discrepancies of what I printed off and what
24	the hard copy is. There's information

missing on some of the attachments. So you
might want to take a look at that and
compare it to what you have.

The other point I think we were going to make is Mr. Huff's -- some of the new stuff that has been included is not numbered. It's not broken out. He's included lots of partial documents. It's going to be very difficult as we are going through to find for everyone, to be following along and finding things in the way the attachments were organized.

MR. FORD: Well, Madam Hearing
Officer, we're glad to work through this
first we've heard of any discrepancies, but
we do have other copies of the testimony and
a hard copy in the back if anybody needs a
hard copy.

HEARING OFFICER TIPSORD: I will point out that it's electronically filed.

It's not a scanning issue. It's how the electronic copy is filed.

MS. DIERS: I think Exhibit A, tab 9, when it was scanned or however it was

1	presented, there's the top half of missing
2	information on pages and stuff, so
3	HEARING OFFICER TIPSORD: Then I
4	would have to ask Mr. Huff to look at if
5	you could take a look, Mr. Ford, at what was
6	filed electronically on the Board's website
7	and see where the problems may be. When
8	it's filed electronically, the clerk's
9	office merely links it.
10	MR. FORD: If there is, maybe we can
11	check on that during the lunch break, and if
12	there's a quick break.
13	MS. DIERS: We've kind of marked
14	everything that I've noticed discrepancies.
15	Debbie got the hard copy, and we were
16	looking at it and noticed the problem.
17	HEARING OFFICER TIPSORD: Go ahead,
18	Mr. Ford.
19	MR. FORD: For the record, before we
20	proceed with questions to Mr. Huff, I want
21	to make a couple preliminary statements on
22	behalf of Citgo Petroleum and Midwest PDP,
23	LLC. We are presenting testimony today with
24	Mr. Huff only with respect to the use issue,

which we understand is the focal point of these sets of hearings. As Mr. Huff's testimony will indicate there are water quality issues that go with the Agency's proposal, and at a later time according to the hearing officer's scheduling order we will be presenting information on technical feasibility and economic reasonableness issues. So what we tried to focus on were the existing conditions for purposes of this testimony today.

I would also have -- we have a couple of extra questions, actually very similar to what counsel was just asking the prior witness about the designated uses of the ship canal, and I can either ask those questions of Mr. Huff now or save it to the end of the questions when I'm trying to do any clarification that needs to be had. So it's really up to the hearing officer and to the Agency of whether or not you'd like me to ask these, and I promise there are four questions, and they are intended to reduce the issues and controversy as opposed to

1	expand the issues and controversy.
2	MS. WILLIAMS: Are they recreational
3	use questions or aquatic life use questions?
4	MR. FORD: Let me tell you what I'd
5	like to ask you, your Exhibit 28 I'm
6	sorry, 29 is the UAA Application Factors To
7	the Lower Des Plaines and CAWS, and I was
8	going to ask him about the segment of the
9	Chicago Sanitary & Ship Canal that onto
10	which the Citco plant is located into which
11	it discharges and whether he agrees or
12	disagrees with any of those determinations.
13	MS. WILLIAMS: All I was getting at,
14	Mr. Ford, with my question is, I just don't
15	recall recreational uses being discussed in
16	detail in this testimony. So if it's about
17	aquatic life uses, we have no objection.
18	MR. FORD: Well, I think you talked
19	about recreational uses in the conditions ir
20	the ship canal so
21	MS. WILLIAMS: It's up to the
22	hearing officer, I guess.
23	HEARING OFFICER TIPSORD: Why don't
24	you go ahead and ask them.

copies of Exhibit 29 if anybody needs them HEARING OFFICER TIPSORD: Can we have one up here? I'd like the Agency to have one. MR. FORD: Mr. Huff, I ask you to look at what was previously marked as Exhibit 29. It's a document entitled "UAA Factor Applications Of The Lower Des Plaine River and CAWS." Do you have that document before you? MR. HUFF: Yes, sir. MR. FORD: And I'd like to direct your attention to the second page of that document. I believe that the bottom row which is entitled "Lower CSSC," do you have that in front of you? MR. HUFF: Yes, I do. MR. FORD: And is it your understanding that this is the segment of the ship canal on which the Citco refinery is located? MR. HUFF: Yes.		iage ou
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6 MR. FORD: Mr. Huff, I ask you to 7 look at what was previously marked as 8 Exhibit 29. It's a document entitled "UAA 9 Factor Applications Of The Lower Des Plaine 10 River and CAWS." Do you have that document 11 before you? 12 MR. HUFF: Yes, sir. 13 MR. FORD: And I'd like to direct 14 your attention to the second page of that 15 document. I believe that the bottom row 16 which is entitled "Lower CSSC," do you have 17 that in front of you? 18 MR. HUFF: Yes, I do. 19 MR. HUFF: Yes, I do. 20 understanding that this is the segment of 21 the ship canal on which the Citco refinery 22 is located? 23 MR. HUFF: Yes.	4	have one up here? I'd like the Agency to
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the ship canal on which the Citco refinery is located? MR. HUFF: Yes.	19	MR. FORD: And is it your
is located? MR. HUFF: Yes.	20	understanding that this is the segment of
MR. HUFF: Yes.	21	the ship canal on which the Citco refinery
	22	is located?
	23	MR. HUFF: Yes.
MR. FORD: I think the prior	24	MR. FORD: I think the prior

1	testimony was that this was a summary table
2	prepared by the Agency to indicate simply
3	and quickly for the parties and the Board
4	their views of the different uses.
5	Mr. Huff, I'd like to direct
6	your attention to the recreational use
7	category and the columns there, and in
8	particular, the category called
9	"nonrecreational." Do you see that?
10	MR. HUFF: Yes, I do.
11	MR. FORD: What is your
12	understanding of what the Agency is
13	indicating by that entry?
14	MR. HUFF: Well, that portion of the
15	ship canal is not suitable for recreational
16	type activities.
17	MR. FORD: And the UAA factor listed
18	there is number three?
19	MR. HUFF: Correct.
20	MR. FORD: And have you read what
21	factor number three is according to this
22	Exhibit?
23	MR. HUFF: Yes, I have.
24	MR FORD: Do vou agree or disagree

1 with the Agency's conclusions with respect to the attainable use for recreational use? 3 MR. HUFF: I agree. MR. FORD: You agree with their conclusion? 5 6 MR. HUFF: Yes. 7 MR. FORD: Do you agree with their 8 indication that UA factor 3 as being the 9 relevant factor? 10 MR. HUFF: Well, I would also add 11 factor 5 into that as well, the physical 12 conditions. 13 MR. FORD: And that's based upon 14 your personal experience and understanding 15 of this segment? 16 MR. HUFF: Right. MR. FORD: Drawing your attention to 18 the UAA, aquatic life use, do you see that 19 column? 20 MR. HUFF: Yes, I do. MR. FORD: And do you agree with the 21 22 Agency's inclusion of UAA factors 3, 4 and 23 5? 24 MR. HUFF: Yes, I do.

1 MR. FORD: And you've reviewed what 2 those factors are, right? MR. HUFF: Yes. MR. FORD: With respect to the 5 attainable use category, do you agree with that determination? MR. HUFF: Oh, in this last column 8 here? 9 MR. FORD: Yes. 10 MR. HUFF: No, I don't. 11 MR. FORD: Are there any other 12 reasons that you would disagree with that 13 other than what we've put and marked as your 14 testimony today? 15 MR. HUFF: No, sir. 16 MR. FORD: So in summary, you would 17 agree with the recreational use 18 determination by the Agency, you agree with 19 their UAA factors on both recreation and 20 aquatic; you disagree with the attainable 21 uses for the lower Chicago Sanitary and Ship 22 Canal? 23 MR. HUFF: That's correct. 24 MR. FORD: Thank you.

1	HEARING OFFICER TIPSORD: Go ahead.
2	MR. ETTINGER: I didn't catch it.
3	You have two clients here today. Mr. Huff
4	is testifying on behalf of?
5	MR. FORD: For the record, Mr. Huff
6	is appearing here today on behalf of Citco.
7	You will recall that he's also submitted
8	testimony on behalf of Corn Products, and we
9	were asking as to questions for Corn
10	Products, that be reserved to the next
11	hearing, which I believe is May 20th, at
12	which the Corn Products representatives are
13	scheduled to testify including Mr. Huff.
14	Counsel, did I say that correctly?
15	MR. READ: That's correct. We also
16	understand there will be overlap, and we
17	will address that later, but as far as
18	specific Corn Product questions, we have a
19	separate day.
20	HEARING OFFICER TIPSORD: Could you
21	please identify yourself for the record?
22	MR. READ: Sorry. Matthew Read on
23	behalf of Corn Products.
24	HEARING OFFICER TIPSORD: Okav. I

1 think we're ready for the Agency. MS. DIERS: I have a follow-up based 3 on what Mr. Ford asked. How would you apply factor 5 to recreational use? 5 MR. HUFF: Well, I was referring to 6 the top part of that, the physical conditions related to the natural features. 8 The steep banks that you have with lack of 9 access is what I was referring to. 10 MS. DIERS: Do you have factor five 11 in front of you? 12 MR. HUFF: Yes, I do. 13 MS. DIERS: Can you read the whole 14 description of factor five? 15 MR. HUFF: "Physical conditions 16 related to the natural features of the water body, such as lack of proper substrate, 18 cover, flow, depth, pool, ripples and the 19 like unrelated to water quality preclude 20 attainment to water life protection uses." 21 MS. DIERS: Would you agree that it 22 only pertains to aquatic life? 23 MR. HUFF: Yes, the last part of

I guess I was just trying to point

	rage 5-
1	out that there are physical conditions that
2	impede recreational uses as well.
3	HEARING OFFICER TIPSORD: For the
4	record, the factors we are discussing are
5	the factors found at 40 CFR 131.10G.
6	MS. DIERS: I also want to state
7	that my questions have changed quite a bit
8	from what was pre-filed based on page
9	numbers changing more information, so this
10	really isn't applicable anymore.
11	HEARING OFFICER TIPSORD: All right.
12	We understood that would be the case.
13	MS. DIERS: Okay. My first
14	question, on page 2 of your pre-filed
15	testimony you state that you have reviewed
16	many reports submitted into the record.
17	Could you please state what reports you are
18	referring to.
19	MR. HUFF: I've reviewed the
20	Agency's statement of reason, and the
21	pre-filed testimony of the Agency's
22	witnesses. I have reviewed the Use of
23	Attainability Analysis on the Chicago

Waterways by Camp Dresser & McKee. I

1	reviewed Mr. Yoder's thermal report. The
2	District's witnesses, I have reviewed some
3	of the pre-filed ones for the District, the
4	lower Des Plaines UAA by Aqua Nova, and the
5	report description of the CAWS by the
6	Illinois EPA and the Metropolitan Water
7	Reclamation District that was an attachment
8	to the Agency's petition, and then Rankin's
9	Analysis of the Physical Habitat, Quality
10	and Limitations on the Waterways in the
11	Chicago Area, which was the Agency's
12	attachment R.
13	MS. DIERS: On page 2 of the
14	pre-filed testimony you state with the
15	exception of Lake Calumet channels, all of
16	the waterways in this group are natural
17	waterways. Plea define how you are using
18	"natural waterways."
19	MR. HUFF: They follow a natural
20	drainage pattern.
21	MS. DIERS: Can you clarify what you
22	mean by that?
23	MR. HUFF: Well, they are not
24	manmade. There was a waterway that existed

in that general vicinity prior to the modification that had been completed since the development.

MS. DIERS: On page 2 and 3 of your pre-filed testimony you state, "With the potential exception of the Cal Sag channel as described later in my testimony, there is no other water body in the CAWS which has unique physical features, commercial shipping, discharge loadings and lack of appropriate habitat for aquatic life as the ship canal." It appears you are now adding the Cal Sag channel to your testimony. What has caused you to add Cal Sag into your analysis?

MR. HUFF: When we completed a attachment 6 on trying to compare the fish and thermal regimes between the two waterbodies, I wanted to look at was the Cal Sag similar, and there are characteristics such as the deep draft manmade channels that are similar to the ship canal.

MS. DIERS: From an aquatic life standpoint, how does the Chicago Sanitary

1	and Ship Canal differ from the Upper Calumet
2	River?
3	MR. HUFF: I'm sorry, could you
4	repeat that again?
5	MS. DIERS: From an aquatic life
6	standpoint, how does the Chicago Sanitary
7	Ship Canal differ from the Upper Calumet
8	River?
9	MR. FORD: I guess, are you asking
10	for entire canal or a segment? I guess that
11	would go to both rivers since your Exhibit
12	29 has maybe six different regions for each
13	one.
14	MS. DIERS: Well, I have other
15	questions for the other regions. I was just
16	breaking it down because I wanted to know
17	about the low north branch of the Chicago
18	River, et cetera. I was going to break it
19	up for you.
20	MEMBER JOHNSON: Number nine in the
21	pre-filed questions.
22	MR. HUFF: It has a lower QHEI
23	score.
24	MS. WILLIAMS: What does?

1	MR. HUFF: The ship canal.
2	MS. DIERS: What QHEI data are you
3	referring to?
4	MR. HUFF: From the UAA report
5	prepared by Camp Dresser & McKee.
6	HEARING OFFICER TIPSORD: Just,
7	also for the record, the UAA report on lower
8	Des Plaines was attachment A, and UAA was
9	attachment B.
10	MS. DIERS: From an aquatic life
11	standpoint how does the Chicago Sanitary &
12	Ship Canal differ from the lower north
13	branch of the Chicago River?
14	MR. HUFF: I'm not sure I can
15	answer that question. I was trying to look
16	and the UAA for the lower north branch of
17	the Chicago River and it's probably got a
18	different naming convention.
19	MS. DIERS: How about with reference
20	to the Chicago River?
21	MR. HUFF: Well, in the loop area,
22	that has lower QHEI score than the stations
23	on the sanitary and ship canal.
24	MS. DIERS: So Chicago River is

	rage 55
1	lower QHEI than the Chicago Sanitary & Ship
2	Canal?
3	MR. HUFF: Just in the loop area,
4	not in the harbor. The inner harbor would
5	be similar.
6	MS. DIERS: Again, are you using
7	QHEI information from the UAA?
8	MR. HUFF: Correct.
9	MS. DIERS: From an aquatic life
10	standpoint, how would it differ from the
11	upper south branch of the Chicago River?
12	MR. HUFF: Again, it would be
13	similar to the ship canal. Maybe slightly
14	lower on the QHEI on the south branch.
15	MS. DIERS: Finally, what about the
16	south fork of the south branch of the
17	Chicago River?
18	MR. HUFF: I'm not sure I can find
19	that on this Camp Dresser. It's got
20	probably a different abbreviation.
21	MS. DIERS: Are the waters that I
22	just reference in my previous question, are
23	they deep draft shipping channels with
24	limited habitat in your opinion?

1 MR. HUFF: Well, the Cal Sag channel is, and then the Chicago River in 3 the loop area is also. MS. DIERS: On page 3 of your 5 testimony, the first sentence under the 6 heading, "Uniqueness Of The Sanitary Ship Canal quote The Illinois EPA's statement of 8 reason on page 17," are you aware that this 9 quote does not refer to the Chicago Sanitary 10 & Ship Canal?

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MR. HUFF: I believe that quote was referencing the lower Des Plaines water system reference and, yes, that's in the parentheses there.

MS. DIERS: In that same paragraph in referring to the CAWS in the lower Des Plaines river you state, "Many of the same challenges and limitations that the Board recognized in the early 1970's remain valid today." Do you believe that the biological condition of the CAWS and the lower Des Plaines river has not changed since the 1970?

24 MR. HUFF: I'm sorry, the

1	biological what
2	MS. DIERS: Condition of the CAWS
3	and the lower Des Plaines River has not
4	changed since the 1970's.
5	MR. HUFF: Oh, I believe it's
6	improved.
7	MS. DIERS: And in your opinion what
8	improvements have you seen in improved
9	waters?
10	MR. HUFF: Well, you've seen
11	improved water quality. The ammonia levels
12	are lower. The suspended solids are lower.
13	The dissolved oxygen levels are higher.
14	MS. DIERS: On page 4 of your
15	pre-filed testimony you state, "The aquation
16	habitat of the ship canal is rated as poor
17	to very poor, in quotes 'IEPA 2006.'
18	Overall stream use is designated as
19	nonsupport for fish consumption and aquation
20	life." Does this IEPA 2006 citation refer
21	to the Illinois Integrated Water Quality
22	report in Section 303D list in 2006?
23	MR. HUFF: I believe so, yes.
24	MS. DIERS: Are you aware that

- habitat is not specifically rated in that report?
- MR. HUFF: No, I'm not.

MS. DIERS: On page 5 of your pre-filed testimony you state, "When barges pass, the physical design of the canal functions as a dangerous wave machine that amplifies the waves and creates very large waves when the barge's wake bounce off the vertical walls." In this regard, how does the Chicago Sanitary Ship Canal differ from the Calumet River?

MR. HUFF: The Calumet river or the Cal Sag channel? In the case of the ship canal you have vertical walls in sections of those that I was referring to as the wave machine, and to my knowledge none of other waterbodies have similar vertical walls on both sides.

MR. FORD: For the record, Madam

Hearing Officer, for the record I think this
is one of those page discrepancies. It's

page 4 on the printed version, and maybe

page 5 on the downloaded version.

1	HEARING OFFICER TIPSORD: Actually
2	we have both up here. Anand has the
3	electronic copy, and I have the hard copy.
4	It's what you said, page 4.
5	MS. DIERS: I'm sorry, were you
6	saying they didn't have vertical walls? I
7	don't know if I heard you correctly.
8	MR. FORD: I think where you were,
9	the way you asked the question, he said I'm
10	not sure that refers to that body of water
11	in the Calumet River system or refers to the
12	Cal Sag River in the channel so
13	MR. HUFF: The ship canal has
14	vertical walls on both sides of stretches of
15	the canal. I don't believe that situation
16	exists on any of the other Chicago area
17	waterways.
18	MS. DIERS: What about the Chicago
19	River?
20	MR. HUFF: Oh, yes, sure through
21	downtown you would have the same thing.
22	MS. DIERS: What about the south
23	branch of the Chicago River?
24	MR. HUFF: I'm not familiar with

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1
           that one.
 2
                  MS. DIERS: What about the upper
           Calumet River?
                  MR. HUFF:
                               I'm not aware of any
 5
           stretches where they have the vertical
           walls. That's certainly possible.
                  MS. DIERS: Are you aware of the
           existence of the Western Avenue and Summit
 9
           boat launches which allows hand powered
10
           boats access to the Chicago Sanitary & Ship
11
           Canal?
12
                               I know they go through.
                  MR. HUFF:
13
                  MS. DIERS:
                                In various parts of
14
           your pre-filed testimony you discuss the
15
           fish barrier. Would you agree that the
16
           upper Chicago Sanitary & Ship Canal upstream
17
           of the electrical fish barrier would
18
           constitute a water link between the Chicago
19
           and Calumet River systems?
20
                  MR. HUFF:
                                Yes.
21
                               And wouldn't this link
                  MS. DIERS:
22
           provide for aquatic life movement between
23
           the two systems?
24
                  MR. HUFF:
                               Yes.
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1 MS. DIERS: Can you explain how the fish barrier interferes with fish migration 3 between the Chicago River and the Calumet River System? 5 It would not between MR. HUFF: 6 those two waterways. MS. DIERS: And do you know what 8 percentage of the ship canal is occupied by 9 the fish barrier? 10 MR. HUFF: What percentage of 11 the --12 MS. DIERS: I quess, how big is the fish barrier? 13 14 MR. HUFF: Approximately six tenths 15 of a mile in length. 16 MS. DIERS: Is the second one up in 17 the water yet? 18 MR. HUFF: I believe it was 19 activated last month. 20 MS. DIERS: On page 4 of your 21 pre-filed testimony you quote Colonel 22 Dorevich. I'm not sure how you say it. 23 quote was, "The safest thing is to keep 24 people out of the water entirely." Do you

1	know if the U.S. Army Corps of Engineers
2	prohibit recreation in and around the
3	electric barrier?
4	MR. HUFF: My understanding is they
5	do.
6	MS. DIERS: This question I'm
7	getting ready to ask is in reference to
8	information on page 6 of your pre-filed
9	testimony. Can you please quantify how or
10	in what way the ship canal is truly unique
11	from the other CAWS waterbodies with respect
12	to some additional features you mentioned on
13	page 6 of your pre-filed testimony, and I'm
14	going to begin with, "Vital to the economic
15	well-being of the region."
16	MR. FORD: I'm sorry, you are
17	asking him to take each one as opposed to
18	the combination of all 15 or so factors?
19	MS. DIERS: I broke them down in ten
20	that I wanted to ask.
21	MR. HUFF: The ship canal is home
22	to the three coal fire electric plants. It
23	also has more barge shipment on it than any
24	of the other waterbody.

1	MS. DIERS: How about with respect
2	to effluent load from combined sewer
3	overflows?
4	MR. HUFF: Well, I would be
5	speculating, but my speculation is that it
6	has more of the combined sewer overflows
7	tributary to the ship canal than any of the
8	other waterbodies just based on the Stickney
9	Plant being located there.
10	MS. DIERS: Storm water run-off?
11	MR. HUFF: Same answer because the
12	Stickney Plant is the largest one. I would
13	anticipate that it serves the largest
14	drainage basin and would have the largest
15	storm water component.
16	HEARING OFFICER TIPSORD:
17	Mr. Ettinger has a follow-up.
18	MR. ETTINGER: I'm sorry, a
19	clarification. I think we agree the
20	Stickney Plant has the largest discharge,
21	but you don't consider the discharge from
22	the Stickney Plant to be the largest storm
23	water run-off, do you?
24	MR. HUFF: No, but it's serving the

	Page 108
1	largest run-off from the major plants. If
2	it's serving the largest area, it stands to
3	reason that it's taking in the highest
4	amount of storm water and same with combined
5	sewer overflows.
6	MR. FORD: Counsel, you can do your
7	own calculations on surface area run-off if
8	you wish, but he's answered the question.
9	MR. ETTINGER: That's why I didn't
10	follow-up.
11	MS. DIERS: Limited shallow areas
12	along the shore line.
13	MR. HUFF: Again, if you go back
14	and look at the Cal Sag channel, when that
15	was constructed, there are some shallow
16	areas that are along the shore line there
17	that's very different with respect to the
18	ship canal. You'd have the same thing
19	through in the downtown loop area as well.
20	MS. DIERS: Silty substrate?
21	MR. HUFF: They all would likely
22	have silty substrate.
23	MS. DIERS: Little instream cover?
24	MR. HUFF: Well, given its width,

	Page 109
1	then lack of canopy cover, it would be true
2	also on the Cal Sag Channel, but it's
3	probably the most on the wider ship canal
4	such as the Sanitary Ship Canal.
5	MS. DIERS: Channelization?
6	MR. HUFF: Again, the manmade ones,
7	there is owe only four bends on the ship
8	canal. It is pretty straight without a lot
9	of bends.
10	MS. DIERS: Sinuosity?
11	MR. HUFF: Same answer. It's
12	heavily channelized, and there are no bends
13	in that river of significance.
14	MS. DIERS: Dredging?
15	MR. HUFF: Well, maintain the
16	proper shipping, which would be true
17	anywhere where you have the barge traffic,
18	you would be dredging the areas that needed
19	to be dreged on a necessary basis.
20	MS. DIERS: And finally slope?
21	MR. HUFF: Again, it has a very low
22	slope, which is probably also true on the
23	Cal Sag Channel.
24	MS. DIERS: On page 5 of your

	Page 110
1	pre-filed testimony you mentioned that three
2	coal fire power plants exist along the
3	Chicago Sanitary & Ship Canal, and these
4	plants provide low cost electricity. What
5	information did you use to reach this
6	conclusion?
7	MR. HUFF: If you look at the
8	current price of fuel, coal right now is
9	sold for approximately one-third of the
10	price of natural gas and one-fourth of the
11	price of fuel oil, and so the major cost in
12	a utility is the fuel cost, and the fuel
13	cost for coal is dramatically less than
14	natural gas or heating oil.
15	MS. DIERS: So your conclusion was
16	only looking at coal?
17	MR. HUFF: No, looking at the cost
18	of the fuel sources.
19	MS. DIERS: Did you look at nuclear?
20	MR. HUFF: No, I did not.
21	MS. DIERS: At page 7, bullet point
22	at the top of the page you state, "There are
23	limited shallow areas along the shore line.

Pre-filed testimony of F.D. Magee, page 10."

Do you agree with Rankin that in the Chicago
Sanitary & Ship Canal these are less common
and isolated compared to the Calumet Sag

Channel?

MR. HUFF: Yes, Ma'am.

MS. DIERS: On page 8 of your pre-filed testimony you state in paragraphs 2 and 3 that the economic impact of the proposed changes will be significant and the re-designation of the Ship Canal will have an economic effect on the residents. What economic costs or impact analysis have you performed on the Chicago Sanitary Ship Canal or any other portions of the CAWS?

MR. HUFF: What I was referring to there was if these regulations were adopted, you would have three coal fire powered plants too that are on the older side, that you may see either those plants close or some attempt at cost of installing some kind of cooling equipment, cooling towers, assuming there's space available. The adoption of these regulations will also lead

to the elimination of mixing zones for chlorides as well as thermal, which will have severe economic impact on anyone that's adding any heat to their discharge or adding any chlorides to their effluent, which would force those facilities to shut down certain times of the year.

MR. ETTINGER: Maybe this is a good time for me to ask this. Did you look at the rules pertaining to Mercury and their potential effect on the Fisk and Crawford plants in analyzing their cost or efficiency or how long those plants will stay open?

MR. HUFF: You are talking about air pollution regulations associated with Mercury or the water quality proposed rule change?

MR. ETTINGER: I'm talking about the Mercury provisions that were passed by this Board a couple years ago that require caps on Mercury, I believe, in 2015 on the Fisk and Crawford plants.

MR. HUFF: Again, same question, you are talking air pollution?

1 HEARING OFFICER TIPSORD: Yes. 2 MR. ETTINGER: I believe they are technically air pollution. 3 No, I did not look at MR. HUFF: 5 that. MR. ETTINGER: You did not take into 6 your account on anything here the impact of 8 that board order on the potential operation 9 or cost of operating the Fisk and Crawford 10 plants. 11 I did not. MR. HUFF: 12 MS. DIERS: On page 8 of your 13 pre-filed testimony you state, "There is no 14 data to suggest Lake Michigan fish are 15 taking up residence in the ship canal." 16 What are Lake Michigan fish? Fish that reside in Lake 17 MR. HUFF: 18 Michigan, such as perch. 19 Perch is the only one? MS. DIERS: 20 Whatever fish are in MR. HUFF: 21 If you go to attachment six to my 22 pre-filed testimony, there's a list of fish 23 that have been collected in the ship canal, 24 and there are some that undoubtedly came

1 through the lochs. 2 MS. WILLIAMS: Can you point us to 3 the page you are looking at or the table you are looking at in your testimony? 5 MR. HUFF: If you go to the MWRDGC 6 report, June 1998. MS. WILLIAMS: How do I find that? 8 HEARING OFFICER TIPSORD: It's 9 attachment six. 10 MR. HUFF: It's in the appendeces. 11 MS. WILLIAMS: It's not reported in 12 Attachment 6. The report is attached to 13 attachment 6, along with a lot of other 14 documents that are attached to Attachment 6 15 that are not numbered or lettered. Can you 16 find it? 17 HEARING OFFICER TIPSORD: Well, 18 it's just the same one saying what he was 19 saying, Ms. Williams. 20 MR. ETTINGER: Is this table 2-2 21 and 2-3? 22 MR. HUFF: No, table A1-17. If you 23 go to A17, that's fish collected at Damen 24 Avenue basically near the beginning of the

1 ship canal, and you see they have 2 collected alewife, that would likely come from Lake Michigan, white perch and possibly 3 the yellow perch. 5 MS. DIERS: How many species do you 6 believe exist in the CAWS and Lake Michigan? I'm sorry, can you 7 MR. HUFF: 8 repeat that? 9 MS. DIERS: How many species do you believe exist in both the CAWS and Lake 10 11 Michigan? 12 MR. FORD: You mean species that occur in both? 13 14 MS. DIERS: Yes. 15 MR. HUFF: I don't know. I have 16 not looked at them. 17 MS. WILLIAMS: Can we -- I mean, I 18 think it would be helpful to me if we walked 19 through this table we are looking at now. 20 So the first -- this is from MWRD report 21 9810, is that what you said? 22 MR. HUFF: Yes. 23 MS. WILLIAMS: Then what pages of 24 that?

MR. HUFF: Well, they go to table 1 2 A1-7.3 MS. WILLIAMS: So my copy started with A1-17. Should a different page come 5 first? MR. HUFF: I think mine also has 17 6 7 first and then they go backwards. MS. WILLIAMS: So first is 17 then 16 and then 11? 9 10 MR. HUFF: Right. 11 MS. WILLIAMS: And then 10, then 9, 12 then 8, then 7, and 6 --13 MR. HUFF: Go one more page after 14 that, and that has perhaps a nicer summary 15 of the fish by species. You can see the 16 trout in there. Periodically they collected 17 the trout. 18 Excuse me, he is looking MR. FORD: 19 at the document called Table 1, and it 20 appears to have page 10 on the bottom of 21 that page. 22 MS. WILLIAMS: So we go from page 23 A-7 and then we go to page 10? 24 Right. MR. HUFF:

	Page II.
1	MS. WILLIAMS: And this is still
2	from the same MWRD document?
3	MR. HUFF: Yes.
4	MS. WILLIAMS: And then we have 10
5	through 14 of that document?
6	MR. HUFF: Yes.
7	MS. WILLIAMS: And that's it?
8	MR. HUFF: Yes.
9	MS. WILLIAMS: Thank you.
10	MS. DIERS: In footnote two on
11	page 10 of your pre-filed testimony, please
12	explain why you state, "No net increase in
13	sulfate would be allowed when chlorides are
14	greater than 500 milligrams per liter?"
15	MR. HUFF: My understanding is the
16	general use standard on sulfate only goes up
17	to concentrations of chlorides of
18	500 milligrams per liter. So the way the
19	regulation is written now, there are no
20	sulfate water quality standards when the
21	chlorides were above 500, which would then
22	say that you can't add any sulfates when the
23	chlorides are above 500 milligrams per
24	liter.

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1	MR. ETTINGER: I'm sorry, you read
2	that rule to say that if chloride is over
3	500, there can be zero discharge of sulfate?
4	MR. HUFF: Yes, sir, I do.
5	MS. WILLIAMS: What do you base that
6	on?
7	MR. HUFF: Based on the proceedings
8	for the general use on PBS and the variance
9	for Citco and the adjusted standard for
10	ExXon Mobile.
11	MS. WILLIAMS: Was there testimony
12	from the Agency that you looked at?
13	MR. HUFF: Yes.
14	MS. WILLIAMS: And can you tell us
15	who that testimony was BY?
16	MR. HUFF: Well, Mr. Twait behind
17	you was one. Mr. Mammoser was the other.
18	And what they testified to was they could
19	not set a sulfate standard when the
20	chlorides were above 500 milligrams per
21	liter.
22	MR. FORD: Let me just say,
23	Counsel, if we've misread the regulation,
24	then obviously clarification would be

1 helpful. But Mr. Huff --I think there was MS. WILLIAMS: 3 clarification in the Agency's testimony in this proceeding already, but that's fine. We can certainly do that after in the 6 comment period. Please explain your MS. DIERS: 8 statement on page 10 of your pre-filed 9 testimony where you state, "Every discharge 10 on the ship canal will be negatively 11 impacted by the loss of mixing zone with 12 significant economic implications." 13 I'm sorry, what was the MR. HUFF: 14 question? 15 I'm asking you to please MS. DIERS: 16 explain your statement on page 10 where you 17 state "every discharger on the ship canal 18 will be negatively impacted by this loss of 19 mixing zone with significant economic 20 implications." 21 Take them pollutant by MR. HUFF: 22 pollutant. Let's start with chlorides. If 23 you adopt a 500 milligram per mililiter

chloride quality water standard, then anyone

who is adding chlorides, which potentially would include de-icing chemicals in the parking lot, would be limited in the periods when the ship canal is above 500 milligrams per liter to 500 milligrams per liter. you have cooling water, once-through cooling water, it's standard practice to disinfect that once-through cooling water. standard chemical is chlorine or sodium hypochloride. So they would be adding chlorine. And if the river is already above 500 milligrams per liter, and they couldn't add any chlorine to the river and you are not allowed a mixing zone, then the river exceeds the water quality standard. have the exact same scenario with a thermal whenever the river was at or above the water quality standards, there would be no mixing zone allowed so the water quality standards would come to effluent limits. You'd have water quality that has Mercury above the water quality standards right now, so that who say there would be, you would be limited to the water quality standard that's being

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	Page 121
1	proposed for Mercury, the 12 nanograms per
2	liter whenever you are above the harmonic
3	beat.
4	MR. FORD: Excuse me, just for
5	clarification, Mr. Huff, in that prior
6	answer when you are talking about water
7	quality standards, you are speaking of the
8	proposed water quality standards?
9	MR. HUFF: Yes, sir.
10	MS. DIERS: In your pre-filed
11	testimony are you suggesting that conveyance
12	of salt laden and snow run-off is an
13	existing use which should be protected?
14	MR. HUFF: It should be recognized
15	as part of the proposed rule change. You
16	have a safety issue to the northeast
17	Illinois.
18	MS. DIERS: How would you recommend
19	the Board recognize that issue?
20	MR. HUFF: I think the appropriate
21	way would be to say that the chloride water
22	quality standards could not apply during
23	periods of snow run-off, if you will, during

periods of highway de-icing. And then I

would require as part of MPDS permits, not only at all the point sources, but on the community storm water permits, that there be specifically a requirement for best management practices with respect to the use of sodium chloride.

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MS. DIERS: Can you please explain how you would go about developing a best management practice for sodium?

MR. HUFF: By definition the best management practice is site specific, much like what is used for storm water pollution prevention where there are hosts of best management practice ideas and dischargers pick the ones that are appropriate in their With respect to highway de-icing, you've got liquid applicators. You've got pre-wetting activities. You have alternatives such as CMA that does not have chloride in there. Sand, mixtures of sand and chlorides. In the case of some industrial facilities they could have larger retention, the deciding run-off from the parking lots, and then probably most

important is calibration and just awareness
of trying to minimize the application of
sodium chloride would go a long way toward
reducing chloride levels.

MS. DIERS: On page 11 of your pre-filed testimony you state, "MWRDGC would also not be able to discharge during periods its effluent exceeded 500 milligrams per liter chloride, which would occur when the ship canal is also over 500 milligrams per liter." Have you concluded that MWRDGC effluents exceed 500 milligrams per liter and based on what?

MR. HUFF: Just based on my professional judgment that's the case during highway de-icing run-off because of the preponderance of combined sewers, all that salt is going to go through the waste water treatment plants, and exceeds the 500 milligrams per liter in their effluent.

MS. DIERS: But you don't have any data that you looked at?

MR. HUFF: Not for the MWRDGC.

MS. DIERS: On page 13 of your

	Page 124
1	pre-filed testimony you state that there are
2	two methods for setting thermal water
3	quality standards. Do you have a citation
4	for this statement?
5	MR. FORD: Which page are you
6	talking about?
7	MS. DIERS: I have it down as
8	page 13.
9	MR. HUFF: If you go to attachment
10	5 in my pre-filed testimony, the letter from
11	Dr. Content, he refers to the preferability
12	of the actual stream data as opposed to
13	laboratory data.
14	MS. DIERS: So what you are saying,
15	you meant to say there are two types of data
16	that can be used, not methods. Are we using
17	the terms the same?
18	MR. HUFF: I was using them
19	interchangeably.
20	MS. DIERS: Okay. How would fuel
21	data be used to set water quality standards?
22	MR. HUFF: I think you would look at
23	the existing aquatic community that's
24	present now. You could do what we did as in

	1430 123
1	attachment 6 and try to compare that to
2	another stream that's not under the same
3	kind of thermal regime.
4	MS. DIERS: On page 146 of your
5	pre-filed testimony, you state, "In essence
6	the Agency discounted Mr. Yoder's analysis
7	and set the nonsummer temperatures so that
8	the MWRDGC would not have to install cooling
9	towers." Wouldn't you agree that the source
10	of water just strike that.
11	Shouldn't the source of water be
12	the background temperature?
13	MR. HUFF: I'm not sure that, one,
14	the background temperature should be used
15	for setting any kind of limits, but, two,
16	the source of the water that you are
17	referring to makes up only 70 percent of the
18	total flow at the Chicago area water. So
19	you are ignoring 30 percent of the sources.
20	MS. WILLIAMS: Isn't it true,
21	Mr. Huff, that 70 percent is the average?
22	MR. HUFF: 70 percent is the
23	average? No, Ma'am.
24	MS. WILLIAMS: During dry weather

do you know what percent of the flow MWRD's effluent makeup of the system?

MR. HUFF: No, I don't. Could I just expand on that a little? To the extent you have once-through cooling water that's being used in there, are you factoring that in?

MS. WILLIAMS: Are you asking me a question?

MR. HUFF: I think when you are trying to say it's the average, your average ignores the once-through cooling water that is being used that's quite significant on the ship canal.

MR. FORD: Can I follow-up? So

Mr. Huff, you are saying that while somebody

may say the average of the total flow at a

certain point on the ship canal is

70 percent based upon this Metropolitan

Water Reclamation District discharge and

flow, that that doesn't take into account

the fact that some water has been taken out

and used once-through cooling and put back

in, that appears to be zero even though it

1 is being permitted and regulated? 2 MR. HUFF: That's correct. 3 MS. WILLIAMS: That's not necessarily 30 percent, right? That could 5 be up to 100 percent? MR. HUFF: How much is being recirculated? 8 MS. WILLIAMS: You made it sound 9 like it was 30 percent of the flow, and it's 10 not, right? 11 MR. HUFF: No, it's 30 percent of 12 the remaining flow that in your background 13 question you are ignoring. 14 MS. WILLIAMS: Would you agree, 15 Mr. Huff, I think you may have answered, I 16 don't know, but I'm going to try -- would 17 you agree that during dry weather the 18 District's effluent makes up closer to 19 100 percent of the flow of the CAWS? 20 MR. HUFF: I just as soon not 21 comment. I don't know. Just maybe I could 22 add a little more to it, that when you are 23 looking strictly at the flow you are not 24 looking at the thermal load. So it goes

back to the same comment that where you have
once-through cooling water, you've got an
additional thermal load that doesn't seem to
be factored in. If you are that I'm taking
the MWRDGC discharge as the background, you
are ignoring the other thermal loads and a
portion of the heat that they are putting
in.

MS. WILLIAMS: Mr. Huff, isn't that the whole point of setting the background temperature?

MR. HUFF: I didn't realize that the effort here was to set background temperatures. I thought the objective here was to set thermal temperatures that would be protective of the aquatic use.

MS. WILLIAMS: But in your testimony you talk about, you say about how the Agency discounted Mr. Yoder's analysis. Do you disagree that a key component of Mr. Yoder's analysis is utilizing background—temperatures for the nonsummer months; do you agree or disagree?

MR. HUFF: I guess I didn't pick

1 that up in reading his testimony. MR. ETTINGER: May I just ask a 3 question here. What is your understanding of why we should even worry about the temperature in nonsummer months? MR. HUFF: I believe Mr. Yoder 6 testified that he thought having cooler periods in the other months was important to 9 the life cycle of the fish. 10 MR. ETTINGER: So you don't, other than what Mr. Yoder said, you don't know 11 12 about any bad thing that could happen if you 13 have hot water temperatures in nonsummer 14 months? 15 MR. HUFF: Hotter water temperature 16 than background, I do not. 17 MR. ETTINGER: Thank you. 18 MS. DIERS: On page 14 you state, 19 with regard to the Agency's use of MWRDGC 20 effluent data in establishing background 21 temperatures for the nonsummer months, you 22 state, implicit in this decision that 23 cooling towers could not be justified, what

is the statement based on?

	Page 130
1	MR. HUFF: Well, had you adopted the
2	numbers that Mr. Yoder had in his report,
3	MWRDGC's effluent temperatures would have
4	exceeded that which means MWRDGC would have
5	had to install cooling towers.
6	MS. DIERS: Do you recall, did the
7	Agency ever mention cost in this proceeding?
8	MR. HUFF: Not that I'm aware of.
9	HEARING OFFICER TIPSORD: Did you
10	say cost?
11	MS. DIERS: Cost, yes, I'm sorry.
12	HEARING OFFICER TIPSORD: And,
13	Ms. Diers, your question was did the Agency
14	ever mention cost in this proceeding. I
15	think you want to clarify cost as to cooling
16	towers. You don't mean cost overall. I
17	think that's a pretty broad straight
18	statement.
19	MS. WILLIAMS: I think she means
20	cost to the Water Reclamation District of
21_	Chicago of installing cooling towers.
22-	HEARING OFFICER TIPSORD: I'm sorry.
23	MR. FORD: We would also agree with
24	that, but also include the other dischargers

as well besides the MWRD but --HEARING OFFICER TIPSORD: Actually, if you are done with follow-up on that question, let's go ahead and take a lunch break. Do you still think, Ms. Diers, that you have couple hours of questions? MS. DIERS: Yes. HEARING OFFICER TIPSORD: In that case, we'll have a new court reporter this afternoon.

	l	1	I	I
A	according 52:22	additional 64:2	77:3 86:21	84:11 108:12
abbreviation	86:5 89:21	106:12 128:3	88:4 89:2,12	108:16 110:2
99:20	account 19:22	address 33:19	91:18 93:1	110:23 114:13
ability 68:10	50:21 113:7	92:17	118:12 125:6	already 9:8
able 5:7 123:7	126:21	addressed 27:1	128:18 130:7	54:15 56:22
about 9:3,6	achieved 54:15	38:7 72:11	130:13	67:16 68:15
10:23 11:6,7	acknowledge	addresses 36:18	Agency's 75:21	119:4 120:11
17:19,21 18:3	5:2	addressing 80:1	86:4 90:1,22	Alsip 44:1
19:16 20:22	acknowledged	adjusted 118:9	94:20,21 95:8	alternatives
21:7 24:21,22	5:3	Adm 1:11	95:11 119:3	122:19
25:14 26:22	across 22:23	Admin 4:7	129:19	Although 62:3
27:9 30:12,15	47:7	admission 9:14	Agenda 43:14	always 66:19,19
32:23,24 43:12	act 78:6	admit 19:3,5	47:18 52:23	67:24 68:24
47:10 49:20	acting 5:13	63:2	56:17	Amendments
52:5,19 53:8	action 70:14	admitted 19:2	ago 20:16 48:17	1:10 4:6
53:23 54:11	72:22	61:22,24	59:12 112:20	amenities 40:12
55:4 57:15	activated 105:19	adopt 119:23	agree 89:24 90:3	40:14 43:12,13
63:10,16 64:6	active 58:14	adopted 20:15	90:4,7,21 91:5	46:9
64:10 66:14	71:2 73:24	111:17 130:1	91:17,18 93:21	ammonia
68:16 69:18	80:18	adoption 111:24	104:15 107:19	101:11
70:10 74:19	actively 54:1	adults 50:1	111:1 125:9	amount 108:4
75:13 77:18	activities 19:12	advantage 66:3	127:14,17	amounts 41:2
80:22 81:3	23:17 25:14	advise 16:4	128:23 130:23	amplifies 102:8
86:15 87:8,16	26:8 30:12	advising 11:19	agrees 33:20	analogize 65:18
87:19 97:17	40:18 47:12	advocacy 25:24	87:11	analysis 94:23
98:19 99:15	89:16 122:18	afford 23:23	ahead 19:9	95:9 96:15
103:18,22	activity 6:23	aforesaid 132:11	59:10 62:14	111:13 125:6
104:2 107:1	49:24	after 5:2 20:13	63:6 85:17	128:19,21
112:14,18	actual 49:1	62:11 82:21	87:24 92:1	analyzing
121:6 122:8	124:12	116:13 119:5	131:4	112:12
124:6 128:18	actually 17:24	afternoon	air 112:14,24	Anand 2:6 4:10
128:18 129:4	23:13 28:6	131:10	113:3	103:2
129:12	30:13 31:10	again 17:22	Albany 32:6	Andes 3:6 6:8,9
above 117:21,23	34:8 41:5 44:6	18:17 20:24	ALBERT 2:18	7:19 8:24 9:7
118:20 120:4	47:3 49:1 53:1	22:24 25:21	alewife 115:2	9:10,15,20
120:11,17,21	56:21 69:4	26:11 34:13,16	Alisa 2:8 4:10	10:11 11:14
121:2	70:9,15 80:6 86:13 103:1	37:21 39:6 45:20 46:10	allow 20:17	12:7 13:19
above-entitled	131:2	52:3 60:18	21:11 22:10,17 allowed 20:20	15:2,8 16:1,4,7 19:9,10,24
132:8,13	add 7:10,14	63:23 65:3	117:13 120:14	20:17 21:6,10
absence 12:9	90:10 96:14	67:20,23 75:11	120:19	21:23 22:10,19
65:9	117:22 120:13	78:18 81:16	allows 104:9	23:17,22 24:13
Absolutely 76:5	127:22	97:4 99:6,12	almost 12:14	25:13,16 26:14
access 23:6	adding 30:1	108:13 109:6	79:17	26:21 27:6,14
26:10 29:19	37:11 96:12	109:21 112:23	along 24:18 29:9	32:1,13,22
44:9 51:3	112:4,4 120:1	against 38:22	34:15 37:3	33:4,9 34:17
66:22 93:9	120:10	age 21:8	44:8 46:18	36:7,10,17
104:10	addition 14:3,11	agencies 37:4	51:4 56:1	37:14,24 38:6
accidentally 79:7	30:7 31:8	Agency 2:9 76:1	69:14 83:9	38:11 39:1,11
19.1		-9,, 7		
\$200\$000000000000000000000000000000000				

20 15 40 5 11	2.1	51 2 54 4 5 10	114101014	(4.15
39:15 40:7,11	3:1	71:3 74:4,5,10	114:12,13,14	awareness 64:15
47:11 48:5	Appeared 2:19	74:15 75:4	124:9 125:1	66:13 123:1
49:10,14,16,19	3:7	77:1,5,16,20	attachments	A-7 116:23
51:23 52:2,11	appearing 92:6	95:11 98:21	43:8 84:1,12	a.m 1:16
53:7 54:18,22	appears 41:19	99:3 100:3	Attainability	A1-17 114:22
55:12 60:18	60:6 96:12	103:16 108:2,7	94:23	116:4
61:8 63:6,7	116:20 126:24	108:19 125:18	attainable 90:2	A1-7 116:2
64:1,9 65:7	appendeces	areas 12:8 13:19	91:5,20	A17 114:23
66:9 67:1,14	114:10	13:22 14:19	attainment	B
68:14 70:15,19	applicable 67:16	16:2,5,7 27:7	93:20	B 36:18 58:8
71:11 72:8,15	94:10	27:23 53:2,5	attempt 111:21	71:12 98:9
72:20 73:4	application 87:6	65:8 72:7	attend 39:2	back 10:11
76:7,10,15	123:2	73:14 76:18,20	attended 35:12	12:23 13:1
77:22 80:2	Applications	77:24 108:11	attention 12:4	14:17,17 15:4
81:2,8,13,23	88:9	108:16 109:18	20:11,23 22:14	34:12 41:20
Ande's 73:12	applicators	110:23	37:13 88:14	53:13,14 58:23
ANDRAS 132:4	122:17	Arm 42:3	89:6 90:17	62:14 74:13
132:16	apply 93:3	Army 23:3 59:6	attractive 73:19	78:13 79:10,22
and/or 12:10	121:22	61:3 106:1	August 48:1	83:5,5 84:17
13:20	appointed 4:3	around 81:9	52:12	108:13 126:23
another 38:23	appreciate	106:2	authored 56:17	128:1
39:24 45:21	30:21	article 46:24	56:23	background
48:16 51:15	approach 81:17	47:21,24 52:12	Autobaun 58:15	59:14 67:11
125:2	approaching	asked 5:9 9:1	auxiliary 36:3	71:24 125:12
answer 9:11	68:2	10:1 73:13	available 68:12	125:14 127:12
43:11 50:15	appropriate	93:3 103:9	111:23	128:5,10,13,21
98:15 107:11 109:11 121:6	63:18 69:2 79:18 96:11	asking 6:1 70:6 86:14 92:9	Avenue 17:2,4 18:8 28:9 32:6	129:16,20
answered 52:5	121:20 122:15	97:9 106:17	43:24 44:1,12	backwards
108:8 127:15	approximately	119:15 126:8	44:15 46:1	116:7
answering 9:23	105:14 110:9	assessment	60:1 104:8	bacteria 50:18
answering 9.23	April 69:8 77:17	72:14	114:24	50:21 54:23
anticipate	80:10	asset 58:7	average 24:22	bacterial 49:21
107:13	Aqua 95:4	assistant 41:14	38:12 125:21	bad 129:12
anybody 10:6	aquatic 87:3,17	associated 38:2	125:23 126:11	balance 40:5
84:17 88:2	90:18 91:20	112:15	125:23 126:11	ballet 79:17
anymore 94:10	93:22 96:11,23	association 7:2	avoid 12:7 16:5	Bamonte 4:18
anymore 34.10 anyone 4:22	97:5 98:10	7:22 8:2 21:21	19:13 64:16	62:16,17,21,22
34:1 37:2 71:5	99:9 101:15,19	24:12 71:4	65:7 66:9 67:5	63:13 64:6,13
77:12,15 112:3	104:22 124:23	72:21 73:15	73:15 79:14	65:12 66:12
119:24	128:16	assume 30:24	82:12	67:8,18 68:24
anything 26:1	archives 51:17	assuming	avoiding 11:17	70:17,22 71:22
63:4 82:16	59:9	111:23	11:17 64:10	72:13,18 73:1
113:7	area 1:7 7:24 8:9	attached 114:12	78:19	73:6,9,17 74:4
anyway 47:6	10:13 19:20	114:14	aware 12:12	74:8,23 75:15
anywhere 34:1	27:8 31:15	attachment	13:21 14:1	76:2,8 77:6,11
65:16 109:17	50:4 52:4 53:1	75:21 95:7,12	16:2 77:4,22	77:14 78:1
appear 66:19	55:3 57:18	96:17 98:8,9	100:8 101:24	79:2 80:5,11
APPEARANCE	64:3,12 70:4	113:21 114:9	104:4,7 130:8	81:2,7 82:2,17
	0.12,122,011	1117	10,, 100.0	Bamonte's 63:2

		[1	1
bank 17:13,22	begins 11:2	105:3,5	bodies 63:15	bringing 76:13
18:13,15,17,21	behalf 2:19 3:7	beyond 26:1	68:12 80:3	broad 130:17
65:21 66:3,7	85:22 92:4,6,8	65:22 72:18	81:18	brochure 7:3,6
banks 24:9	92:23	biases 5:12	bodily 71:16	8:10,21 10:18
69:11,14 93:8	behind 65:22	big 24:6,7 28:15	body 30:5 64:16	11:8,16,22
barge 13:23	118:16	65:18 105:12	65:3,5 78:20	44:19 56:8
16:2 27:7 65:8	being 9:11 22:7	bike 43:13 44:13	79:12,14 82:12	57:9 64:3
65:23 68:16	22:8,8 23:18	bikes 59:18	93:17 96:8	broke 106:19
69:22 70:21	26:3 27:1	biological	103:10	broken 32:3
106:23 109:17	32:24 34:14	100:21 101:1	Boeing 38:18	84:7
barges 14:2	87:15 90:8	biologist 59:7	booking 39:9	brown 77:1
27:12 68:23	107:9 120:24	Bird 44:18	boost 38:23	Bubbly 18:11
102:5	126:6,13 127:1	birder 58:14	both 7:9 41:17	24:18,21 31:24
barge's 102:9	127:6 132:4	birding 44:21,23	65:19 81:13	41:24 43:3
BARNES 3:2	belief 32:8	birds 58:16 59:1	91:19 97:11	45:20 51:13
barrier 104:15	believe 7:5	60:5,11	102:19 103:2	55:24 74:24
104:17 105:2,9	21:13,17 24:24	bit 17:4 63:9	103:14 115:10	build 5:10
105:13 106:3	27:10,20 29:14	94:7	115:13	Building 59:13
base 29:12 118:5	31:11 34:8	black 59:21	bottom 64:24	built 23:2,3,4
based 11:7	36:4 46:21	blind 76:3	88:15 116:20	43:16 46:6
28:11 38:14	47:8 50:5	blocks 16:21	bounce 102:9	bullet 110:21
57:18 59:3	53:11 54:22	blog 80:14	branch 13:4	bunch 14:18
90:13 93:2	58:10 64:1	Blue 31:22	14:3,5,15	Bureau 8:17
94:8 107:8	67:15 71:18	45:21 46:11	16:16,18 17:17	business 4:12
118:7 123:13	73:10,16 74:23	board 1:1,15 2:3	17:21 18:4,8	132:5
123:14 126:19	75:15 76:20	4:3 5:9 80:9	24:17,18 27:7	busy 70:12
129:24	77:6,20 88:15	89:3 100:19	27:11,15,15,17	butterfly 59:15
basic 22:22	92:11 100:11	112:20 113:8	27:21,21,23	
basically 27:22	100:20 101:5	121:19	28:1,2 31:15	<u>C</u>
31:14 78:10	101:23 103:15	Board's 5:11	32:5,10,11	C 2:1 19:11
81:4 114:24	105:18 112:21	83:20 85:6	36:14,14 40:8	25:16 36:18
basin 18:4,5	113:2 115:6,10	boat 12:8 14:13	46:17,22 51:9	38:6 67:1
60:1 107:14	129:6	15:10 16:16	55:23,24 59:21	132:2
basis 109:19	Belmont 29:5	18:2 29:7,15	59:23,24 60:2	Cal 14:16 23:5
beaches 25:19	belong 65:17	34:12,12,13	97:17 98:13,16	31:20,22 45:7
69:18	Bend 46:11	35:17 36:2	99:11,14,16	45:8,9 76:23
beat 121:3	bends 109:7,9	43:20 47:3	103:23	96:6,13,14,19
beautiful 12:20	109:12	64:20,23 65:8	branches 59:2	100:1 102:14
beavers 58:17	benefits 68:8	66:8 70:1,13	break 25:2,17	103:12 108:14
become 53:23	besides 131:1	74:19 77:23	25:22 62:9,10	109:2,23
before 1:1,14	best 122:4,8,10	78:11,14 79:6	85:11,12 97:18	calculations
5:4 6:7 11:2,5	122:13	79:9,15,22	131:5	108:7
18:23 35:9	better 20:21	82:7 104:9	breaking 26:12	calibration
85:19 88:11	53:21 71:14	boats 11:11 12:3	97:16	123:1
begin 4:15 5:4	72:2 82:6	12:13,23 28:20	bridge 44:15	called 14:12
5:15 6:6	between 13:8	29:6,8,17 34:3	bridges 69:13	16:24 28:4
106:14	25:9 55:9	35:18 36:5	Brief 82:21	35:17 40:13
beginning 42:24	58:11 96:18	46:5 68:23,23	bring 20:12	45:8,24 79:3
114:24	104:18,22	104:10	29:13	89:8 116:19 calls 21:21
				Calls 21.21
L				·

	1	1	1	I
Calumet 44:20	29:3,12,13	49:23 50:6,8	100:22 101:4	31:16,21,23
46:21 47:2	30:4,24 34:19	50:11 51:1,3	changes 111:9	32:5 34:18,21
55:9 75:4,5,6,8	39:23 51:6,8	52:20 54:9	changing 94:9	34:24 35:1,3,8
75:9,11 95:15	57:15,18	56:7 59:3	channel 14:6	35:12 36:23
97:1,7 102:12	canoeing 10:20	61:10 63:12	17:23 18:7	38:20 39:3,22
102:13 103:11	10:21 24:16	65:13,15 66:5	24:17 27:17,23	39:23 40:13,19
104:3,19 105:3	25:19 37:9	67:5 68:4,8	28:3 31:14	40:20,20 41:6
111:3	55:22	69:4,8 70:5,8,8	40:9 46:16	42:1,4,13 43:4
Camaraderie	canoeing/kaya	70:10,17 71:7	73:23 76:24	43:9,13,16
8:4	28:23	71:9 72:2 73:2	96:6,13 100:2	44:8,10,19
came 14:17	canoeists 22:11	73:18 78:6,15	102:14 103:12	45:6,24 46:24
113:24	80:18	79:23 80:4	108:14 109:2	47:17 48:2
Camp 94:24	canoes 18:6 29:4	81:5,10,18,20	109:23 111:4	49:6 52:13,23
98:5 99:19	canopy 109:1	87:7 88:10	Channelization	52:24 53:22
Camping 8:3	caps 112:20	95:5 96:8	109:5	54:6,7 55:9,23
canal 14:16	capsizing 33:12	100:16,21	channelized	56:1,16,20,24
18:12 24:19	33:22 70:16	101:2 106:11	109:12	58:6,7,15 59:1
44:5 45:17,19	captured 53:4	111:15 115:6	channels 95:15	59:8,17 60:5,8
51:16 55:23	captures 53:2,18	115:10 127:19	96:21 99:23	60:12,14,23
56:2 74:17	care 22:9	CD 8:16 10:10	characteristics	61:6,21 62:19
76:23 86:16	careful 65:24	15:20 19:2,6	96:20	64:3,12 70:4
87:9,20 88:21	carp 60:2	23:11 83:9	characterizati	71:3 76:22
89:15 91:22	carry 63:20	cell 63:21 68:10	33:18	82:10 87:9
96:12,22 97:1	carrying 12:3	69:14	characterize	91:21 94:23
97:7,10 98:1	68:6	Center 1:16	16:11 20:21	95:11 96:24
98:12,23 99:2	cars 47:5 65:18	2:14 29:7,14	54:21	97:6,17 98:11
99:13 100:7,10	case 94:12	31:22 45:6	charismatic	98:13,17,20,24
101:16 102:6	102:14 122:16	Cermak 17:19	44:10	99:1,11,17
102:11,15	122:21 123:15	certain 12:7	chart 25:20	100:2,9 102:11
103:13,15	131:9	19:13 65:7	26:11,18 32:3	103:16,18,23
104:11,16	catch 18:24 92:2	66:9 112:6	39:18,24 40:4	104:10,16,18
105:8 106:10	category 27:14	126:18	48:16,22,24	105:3 110:3
106:21 107:7	27:16 89:7,8	certainly 65:23	49:5 54:4 55:7	111:1,13
108:18 109:3,4	91:5	104:6 119:5	check 6:1 19:17	125:18 130:21
109:8 110:3	Cathy 41:13	Certified 132:4	85:11	Chicagoland
111:2,10,14	caught 19:8	certify 132:6,9	checks 19:18	29:11
113:15,23	61:16	cetera 67:22	chemical 120:9	children 20:17
115:1 119:10	cause 132:9,13	68:2 97:18	chemicals 120:2	20:19 21:7,11
119:17 120:4	caused 96:14	CFR 94:5	Chew 30:3	21:24 22:1,2
123:10 126:14	CAWS 6:12,15	CHAIRMAN	Chicago 1:7,17	50:1 67:5
126:18	6:17 7:5,11 9:3	4:1 9:17	2:16 3:4 7:24	Chinatown
cancel 20:10	9:6 10:18	challenges	8:8 9:5 10:13	17:17 35:16
candor 72:19	15:16,21 17:9	100:18	12:15 14:5	chloride 118:2
canoe 6:18 7:2	21:3 23:6,10	Chamber 35:16	19:18 22:16	119:24 121:21
7:22 8:2 11:1	24:1 25:11,12	chance 33:24	23:2,2 24:7,17	122:6,20 123:3
13:11 21:15,20	27:5 29:19	62:8 70:16	25:10 26:9,16	123:4,9
22:6 24:11,12	30:6 31:10,17	change 112:17	28:19 29:2,3,5	chlorides 112:2
25:3 26:17	32:7,11 33:24	121:15	29:8,9,22 30:4	112:5 117:13
28:5,12,17,20	34:8 40:5,7,15	changed 94:7	30:6,23 31:4	117:17,21,23
	l	l	1	l

	1	I	l	i
118:20 119:22	closed 37:8	comments 48:7	123:11	continuous
120:1 122:21	closer 37:13	48:10	conclusion 90:5	43:18
chlorine 120:9	127:18	Commerce	110:6,15	control 1:1,15
120:11,13	clothing 65:2	35:16	conclusions 90:1	2:3 6:16,21
choose 66:17	club 2:20 17:13	commercial	concrete 46:4	21:4
chose 16:14	77:8	46:8 82:10	condition 50:17	controversy
Circle 14:12	clubs 30:10	96:9	100:21 101:2	86:24 87:1
15:21 18:17	77:18,19 80:8	Commission	conditions 49:22	convention
23:10,14 44:2	CMA 122:19	8:18	68:1 71:6	98:18
citation 101:20	coal 106:22	committee 44:7	86:10 87:19	conveyance
124:3	110:2,8,13,16	common 71:24	90:12 93:7,15	121:11
Citco 87:10	111:18	79:3 111:2	94:1	Cook 53:24
88:21 92:6	Coast 34:20,24	commonly 14:12	conducted 48:9	58:18 132:6
118:9	35:7,22 36:3,3	78:9	conference 57:1	cooler 129:7
Citgo 85:22	Coastal 80:20	communicatio	confined 66:4	cooling 111:22
city 16:23 18:14	Code 1:11 4:7	63:21 67:21	conflict 14:1	111:22 120:6,6
23:1 26:8	cold 79:13	68:3,7	conflicts 12:13	120:8 125:8
29:11 40:19,20	collected 55:8	community	12:16	126:5,12,23
41:6 42:1	113:23 114:23	63:14 65:4	confluence	128:2 129:23
43:15,18,20	115:2 116:16	66:13 69:7	14:16 76:22	130:5,15,21
44:16,18 52:24	college 30:9	72:3 78:16	connect 43:19	coordinated
53:15,21 56:20	45:16	122:3 124:23	44:13	35:20
56:24 59:18,20	Collegiate 45:8	companies	connections	copies 7:8 19:4
132:5	Colonel 105:21	28:17,21	44:15	56:22 76:7,8
clarification	color 76:3	company 25:7	Conservation	84:16 88:2
86:19 107:19	colored 18:6	38:18	8:3	cops 36:6,8
118:24 119:3	colors 75:23	compare 84:3	consider 65:13	copy 8:16 43:14
121:5	Columbus 17:5	96:17 125:1	107:21	83:22,24 84:17
clarify 73:17	column 90:19	compared 61:23	consistent 62:1	84:18,22 85:15
95:21 130:15	91:7	111:3	constitute	103:3,3 116:3
Clark 13:8	columns 89:7	comparison	104:18	Corn 92:8,9,12
15:11 27:24	combination	36:23	constructed	92:18,23
28:5 29:4	106:18	competition 8:3	13:10 108:15	Corp 23:3 42:3
36:13 43:23	combined 20:3,5	8:4 28:17	construction	corporate 38:20
51:6 74:12	20:8 52:21	complete 5:10	44:11 45:19	corporations
classic 21:14	53:1,6,9,18	43:17	consumption	37:17 38:3
22:17 34:19	66:14 67:7	completed 96:2	101:19	Corps 59:6 61:3
35:2,4 37:16	72:10 107:2,6	96:16	contact 11:18	106:1
38:8 44:21	108:4 123:17	compliments	56:11 64:10,18	correct 13:23
74:15	come 30:23 34:3	54:14	64:18 71:16	16:9 23:20
clean 24:8	35:8,22 45:3,9	component	76:19 78:20	49:18 73:12
clearly 46:3	74:11,13 115:2	107:15 128:20	contains 132:11	80:5 81:6,7
50:20	116:4 120:20	concentrations	Content 124:11	82:2 89:19
clerk's 85:8	comes 65:2	54:23 117:17	context 60:24	91:23 92:15
clients 82:12,13	coming 6:4	concerned 52:19	75:13	99:8 127:2
92:3	57:17 82:7	53:8 68:21	continue 4:15	132:10
close 29:16	comment 49:5	69:1 70:10	51:22 83:7	correctly 92:14
65:21 66:3,7	50:5 119:6	concerns 79:24	continued 3:1	103:7
111:20	127:21 128:1	concluded	74:17	cost 110:4,11,12
	I	I	I	I

110:13,17	66:14,18,22	demonstration	81:16,21 96:3	97:7 98:12
111:21 112:12	CSOs 49:20	46:6	DEXTER 2:18	99:10 102:11
113:9 130:7,10	CSR 132:16,17	DENISE 132:4	5:19 7:16,23	different 10:16
130:11,14,15	CSSC 88:16	132:16	8:14 9:8 13:16	57:15 75:23,24
130:16,20	current 110:8	Department 7:7	15:23 28:22	89:4 97:12
costs 111:12	currently 72:23	35:14 42:2,3	29:18 33:17	98:18 99:20
counsel 57:12	74:18	57:12	41:3 42:8	108:17 116:4
86:14 92:14	cycle 129:9	departmental	47:14,20 57:24	differently
108:6 118:23	Cynthia 61:2	38:21	58:22 62:5	54:21 78:6
count 30:19 33:2	Cyrano's 46:14	departure 68:5	78:5,23 80:6	difficult 84:9
counted 13:8,11		depends 28:10	de-icing 120:2	direct 15:12
58:13	D	depicted 23:15	121:24 122:16	43:11 72:24
country 22:23	D 25:17	depth 93:18	123:16	82:12 88:13
counts 71:19	Daley's 44:6	Des 1:9 4:6 87:7	Diers 2:10 55:16	89:5
County 53:24	dam 32:6 59:23	88:9 95:4 98:8	55:16 56:10,14	direction 34:4
58:18 132:2,6	76:24	100:12,17,22	57:2,14,20	81:11
couple 16:21	Dame 45:12	101:3 132:6	61:13 83:14,17	directions 81:24
26:21 57:24	Damen 114:23	described 22:21	84:23 85:13	82:3
61:1 85:21	Dan 29:7	34:18 51:2	93:2,10,13,21	directly 63:5
86:13 112:20	dangerous 102:7	96:7	94:6,13 95:13	disagree 50:16
131:6	data 98:2 113:14	description	95:21 96:4,23	89:24 91:12,20
course 35:23	123:22 124:12	93:14 95:5	97:5,14 98:2	128:20,23
83:21	124:13,15,21	descriptions	98:10,19,24	disagrees 87:12
court 5:6 131:9	129:20	30:11	99:6,9,15,21	discharge 96:10
cover 93:18	date 8:10 53:18	deserted 74:19	100:4,15 101:2	107:20,21
108:23 109:1	dated 42:13	deserves 58:8	101:7,14,24	112:4 118:3
coverage 68:10	Dave 29:22	design 42:5	102:4 103:5,18	119:9 123:7
69:15	51:18	102:6	103:22 104:2,7	126:20 128:5
covered 27:22	day 4:19 5:24	designate 75:23	104:13,21	discharger
CPA 11:1	6:2 8:16,22	designated	105:1,7,12,16	119:17
craft 66:4	24:7 30:16	76:19 77:1,23	105:20 106:6	dischargers
crafts 65:24	36:1 61:6	86:15 101:18	106:19 107:1	122:14 130:24
70:21	80:15 92:19	designation	107:10 108:11	discharges 20:4
Crawford	days 30:16	75:20 77:2	108:20,23	20:6 87:11
112:11,22	32:20 36:21	designations	109:5,10,14,20	discounted
113:9	Debbie 85:15	75:24	109:24 110:15	125:6 128:19
crawl 47:4	Deborah 2:11	destinations	110:19,21	discrepancies
creates 102:8	Debra 73:9	28:12	111:6 113:12	83:23 84:15
Creek 18:11	deciding 122:23	detail 87:16	113:19 115:5,9	85:14 102:22
24:18,21 31:24	decision 5:11	detailed 36:24	115:14 117:10	discuss 40:14
42:1 43:3	129:22	details 56:7	119:7,15	41:10 48:6
45:20 51:13	deep 33:13,18	determination	121:10,18	104:14
56:1 75:1	34:11,15 96:21	91:6,18	122:7 123:5,21	discussed 57:7
crew 18:9 25:5	99:23	determinations	123:24 124:7	64:2 67:16
30:8,9,9 31:3,7	define 27:6	87:12	124:14,20	87:15
31:9 45:4	95:17	developing	125:4 129:18	discussing 53:3
crews 32:18	defining 80:23	122:8	130:6,11,13	94:4
Cruising 8:3	definition 58:9	development	131:5,7	discussion 71:2
CSO 20:11,13	122:10	40:23 42:2	differ 36:20 97:1	disinfect 50:2
<u> </u>	Dell 46:20			
		i	1	ĺ

	i	I	I	
72:17 120:7	doing 21:5 25:10	drop 28:15	123:20 126:2	entrance 65:15
disinfected	38:18 43:11	dry 63:20	127:18 129:20	entry 12:9 13:20
52:18 67:3	132:5	125:24 127:17	130:3	16:8 65:9
72:5	dollars 40:22	due 12:8 33:13	effluents 50:2	89:13
disinfection	Dolphin 46:15	52:20 65:8	52:17 54:23	environment
23:18 47:9,13	done 53:15 62:6	67:6 72:23	123:12	42:3 68:9 69:3
54:3,13,19	72:13 77:8	duly 5:17 26:14	effort 128:13	69:5,9 73:19
55:5 71:19	131:3	62:23 83:2	egress 15:15	environmental
dissolved 101:13	Dorevich 105:22	during 12:17	17:8 33:14,19	2:6,9,14 68:1
distinction	down 25:2,17,22	66:10,22 85:11	34:9	EPA 7:8 55:17
58:11	26:12 36:13	121:22,23	egresses 77:24	73:10 95:6
distinguish 25:9	55:24 64:22	123:7,15	either 37:10	EPA's 100:7
51:20	72:20 73:23	125:24 127:17	79:7 86:16	equipment
distribute 56:5	74:11,15,17		111:20	63:21 67:19
distributed	97:16 106:19	<u>E</u>	elected 48:18	68:7 111:22
56:23	112:6 124:7	E 2:1,1,5 83:8	electric 106:3,22	Erie 44:24
district 4:22	downloaded	each 5:6 38:13	electrical 104:17	Eskimo 79:3
13:10 18:14	102:24	38:22 71:16	electricity 110:4	essence 125:5
20:7 23:3,4	downstream	78:13 97:12	electronic 84:22	establish 71:14
26:9 35:12,13	28:6 51:11	106:17	103:3	established 6:23
39:3,9,23 40:6	downtown 14:6	earlier 22:14,22	electronically	establishing
40:19,24 42:9	14:9,14,18	30:7 51:2 56:8	84:20 85:6,8	129:20
42:13 43:4	16:20 17:14	58:13 80:22	elimination	et 67:21 68:2
50:1 53:15	18:18 34:22	81:3	112:1	97:18
54:8 58:18	46:3,13 59:10	early 100:19	ELPC 2:19	Ettinger 2:18
95:3,7 126:20	74:4,5,10,14	easily 11:13	employ 6:11	78:24 92:2
130:20	103:21 108:19	east 2:15 17:1,3	63:11 67:15	107:17,18
District's 58:3	dozen 77:18	17:4,13 18:7	employed 38:2	108:9 112:8,18
95:2 127:18	Dr 4:12 5:13	18:15 45:19	employee 59:6	113:2,6 114:20
divide 38:14	23:13 124:11	46:16	employees 48:11	118:1 129:2,10
dock 16:22 17:5	draft 33:13	easy 66:6	48:24	129:17
17:12 18:5	34:11 96:21	economic 86:8	employs 10:13	even 13:6 50:1
23:5 28:8	99:23	106:14 111:8	encouraging	52:17 67:2
35:15 46:5	drafting 33:19	111:11,12	7:13	126:24 129:4
docked 18:9	dragon 35:17	112:3 119:12	end 86:18	event 22:16 35:4
docket 4:8	44:22	119:19	endangered	35:7,10 36:1
docks 13:5,6,12	dragons 35:19	edge 17:16,18	59:21	36:20 37:2,17
13:14 16:19	drainage 95:20	29:3 34:13	Engineers 42:4	events 8:4 19:14
17:2 23:2,3,4	107:14	46:23 69:22	59:6 61:3	20:18,21 21:12
43:20,21,22	dramatically	education 25:23	106:1	22:12 23:24
44:1	110:13	effect 71:8	enter 10:5,7,10	35:11 66:11,15
document 10:14	Drawing 90:17	111:11 112:11	47:14 83:7	66:22
41:3 42:10	dredging 109:14	effectively 78:14	entered 39:19	ever 19:1 130: <u>7</u>
56:18 88:8,10	109:18	effects 71:9	entire 43:18	130:14
88:15 116:19	dreged 109:19	efficiency	73:18 97:10	every 16:21 -
117:2,5	Dresser 94:24	112:12	entirely 59:2	71:17 119:9,17
documents 8:15	98:5 99:19	effluent 1:6 47:9	105:24	everybody 22:3
41:5 58:23	Drive 2:15 3:3	50:19 67:3	entitled 4:4 49:5	49:16
84:8 114:14	17:5	107:2 112:5	88:8,16	everyone 4:2,14
		120:20 123:8		

	1	I	I	i
84:10	89:22 97:11	F	figures 24:22	113:9
everything	exhibits 15:7	Facepoint 23:5	57:17	five 21:21 71:13
23:14 24:3	18:24 19:8	31:20 45:21	file 61:1	79:11 93:10,14
30:22 69:17	30:21	46:10	filed 10:1 48:10	Flatwater 16:24
85:14	exist 110:2	facilities 13:10	69:7 77:17	17:1 21:14
evidence 9:18	115:6,10	35:13 51:4	83:12,13 84:20	22:17 34:19
exact 120:16	existed 95:24	57:16 112:6	84:22 85:6,8	35:1,4 36:24
exactly 27:8	existence 104:8	122:22	finally 99:15	37:1,16 44:21
31:8	existing 86:10	facility 6:18	109:20	46:14 74:14
examined 5:17	121:13 124:23	fact 22:2 54:4	find 84:10 99:18	float 63:22
62:23 83:2	exists 103:16	75:7 81:4 82:4	114:7,16	65:17
example 38:18	exit 12:9 13:20	126:22	finding 84:11	floating 46:2
41:8 42:10	16:8 65:9,15	factor 69:24	fine 119:4	flow 72:5 93:18
45:22 49:24	Exits 17:9	88:9 89:17,21	finish 4:19 53:16	125:18 126:1
74:11	expand 87:1	90:8,9,11 93:4	finishes 7:15	126:17,21
examples 45:15	126:4	93:10,14	fire 106:22	127:9,12,19,23
exceed 123:12	expanding	factored 128:4	110:2 111:18	flowing 69:10
exceeded 123:8	46:22	factoring 126:6	first 5:17 6:24	flush 52:14 53:2
130:4	expected 68:5,6	factors 33:16	7:16,17 8:1	focal 86:1
exceeds 120:15	experience	65:14 67:11	15:7,9 30:23	focus 86:9
123:19	20:22,24 26:5	87:6 90:22	38:17 41:3	focused 77:19
exception 95:15	67:12 71:8	91:2,19 94:4,5	51:6 52:14	folks 64:4
96:6	78:17 90:14	106:18	53:2,19 62:23	follow 6:22,24
excuse 32:11	experienced	fair 52:16 66:15	68:20 71:13	10:15,16 64:5
116:18 121:4	66:16 70:19,23	fairly 66:2	83:2 84:15	64:14 95:19
execute 79:9	expert 50:4 52:4	fall 12:22,22	94:13 100:5	followed 48:7
exercise 81:1	55:2 71:23	24:6 33:10	115:20 116:5,7	following 19:14
exhibit 6:5 7:16	explain 27:17	34:11 38:9	116:8	22:22 62:11
8:2,6,7,12,13	57:4 74:2	78:11	fish 24:4,6 46:1	66:10 82:22
8:22,23 9:14	105:1 117:12	falling 33:24	54:5,9,24 55:8	84:11
10:5,7,10	119:7,16 122:7	familiar 14:4	58:14 59:7,11	follows 5:18
13:17 15:10,13	exponentially	16:17 32:16	59:17 61:15,18	62:24 83:3
15:14,18,19,22	72:3	103:24	61:23 96:17	follow-up 4:23
17:7,11 19:2,3	exposure 11:20	family 63:23	101:19 104:15	4:24 32:15
26:19,20 31:1	52:19 53:8	far 27:12 32:17	104:17 105:2,2	57:14 73:8
31:3,5,6 40:1,2	72:24	38:15 44:14	105:9,13	80:7 93:2
41:15,16,22,23	exposures 67:5	92:17	113:14,16,17	107:17 108:10
42:6,7,15,16	express 5:12	fast 6:4	113:20,22	126:15 131:3
42:19,20 47:15	expressway	feasibility 86:8	114:23 116:15	follow-ups 58:1
47:18,19 48:3	65:19	features 93:7,16	129:9	Foods 46:15
48:4 49:9	extensive 71:15	96:9 106:12	Fishery 17:20	footnote 117:10
50:13,14 55:10	extent 126:4	fecal 71:19	46:21	force 112:6
55:11 56:9,16	extra 86:13 88:1	feel 33:11 49:23	Fishes 59:4	Ford 82:19
60:12,13,16,17	extreme 20:10	72:1	60:14,20 61:21	83:22 84:13
61:11,12,14,22	extremely 73:21	feet 69:18	fishing 44:3,4,5	85:5,10,18,19
63:3,4 75:20	ExXon 118:10	few 37:7,9 48:16	44:6,8,22	87:4,14,18
76:9 83:9,11	eye 65:21 66:1,2	fewer 70:1	51:10,14 59:22	88:1,6,13,19
83:16 84:23	67:23	field 37:18	59:24	88:24 89:11,17
87:5 88:2,8	eyes 11:9	figure 38:23	Fisk 112:11,21	89:20,24 90:4
	I	I	1	I

	•	1		1
90:7,13,17,21	13:24 15:16	69:13,17 72:9	81:5	58:2 65:6
91:1,4,9,11,16	16:3,6,10 17:8	73:9 75:3,8	Geneva 29:14	68:14 76:6
91:24 92:5	17:12 19:15	76:22 83:20,22	gentleman 59:24	84:5,9,9 87:8
93:3 97:9	20:5,19 21:9	94:8 96:23	gets 47:6 80:14	97:18 106:14
102:20 103:8	21:13 22:1,13	97:1,5,7 98:4	getting 51:7	123:18 127:16
106:16 108:6	22:21 23:12,16	98:10,12 99:7	64:21 73:13	golden 79:5
115:12 116:18	23:21 24:2,24	99:9,10 102:11	79:14 82:13	good 4:1 40:17
118:22 121:4	25:15,20 27:3	106:11 107:2	87:13 106:7	45:22 62:3
124:5 126:15	27:10,18 28:16	107:21 108:1	giant 76:14	63:7 67:24
130:23	29:1,21 31:11	115:3,20	Girard 4:12	73:8 112:8
foregoing 132:8	31:18 32:8,20	116:22 117:2	Girard's 5:13	goose 28:4,7
132:9	33:2,7,21 35:3	118:12 122:23	give 9:24 10:1	gotten 56:11
Forest 58:17	36:9,12,22	124:10	11:4 56:6	Governor 48:19
forget 56:9	37:21 38:4,9	front 16:23	given 59:5 61:2	grasp 69:20
forgive 43:7	38:14 39:6,13	35:19 40:23	108:24	great 12:19
56:9 60:9	39:18 40:3,10	41:19 45:1	gives 4:14 34:21	44:20
fork 99:16	40:16 41:13	65:22 88:17	giving 9:22,22	greater 26:6
form 81:1	43:6 48:14	93:11	glad 84:14	117:14
formally 19:1	49:12,15,18	fuel 110:8,11,12	go 10:11 13:7	green 18:21
forth 7:1 10:17	50:3,12,15	110:12,18	15:4 16:13	46:15
Foster 44:16	52:1,3,9,22	124:20	18:24 19:8,10	group 10:23
found 34:3 60:7	53:11 54:20	full 64:16 65:4	24:14 25:17	16:4 19:12,13
94:5	55:2 56:5,13	70:20 78:20	27:13 29:12	21:5 30:18
four 86:22 109:7	56:19 57:6,19	79:12,14 82:12	56:15,22 59:10	31:19 42:5,5
Fox 61:2 70:13	57:23 58:10,24	82:14	59:12 62:13,14	71:2 73:24
fraction 6:14	60:9,20 61:4	Fulton's 46:12	63:5,6 74:12	80:13,18 95:16
21:2,4 25:4	61:17 62:2,8	fun 12:20 79:16	75:5 76:3	groups 31:12
Frank 60:21	Frisbie's 5:19	80:3 81:9,13	77:16,21 78:16	35:21 48:12,18
61:2	6:5	81:15	79:17 82:19	49:11
frankly 12:18	from 4:11,16,21	functions 102:7	83:5 85:17	grow 72:3
70:24 77:16	11:8 14:14	further 17:4	86:4 87:24	Guard 34:21,24
FREDERIC 3:6	15:12 17:5	57:8	92:1 97:11	35:8,22 36:3,3
free 69:10	19:24 24:12	future 54:15	104:12 108:13	guess 13:21
frequency 30:19	25:6 28:17,20	F.D 110:24	113:21 114:5	28:11 33:23
Friday 48:1	29:4,9 30:2		114:23 116:1,7	39:8 87:22
Friends 6:13 9:4	32:20 34:4	G	116:13,22,23	93:24 97:9,10
12:15 19:17	36:12,20 38:1	G 72:21	122:8 123:3,18	105:12 128:24
23:23 25:2,10	39:4 40:14	gas 110:10,14	124:9 131:4	guessing 39:11
25:22 26:16	41:6,13 42:24	gave 40:20	goal 43:17	39:13
28:18 36:22	45:10 46:24	60:22,24	goes 6:19 36:12	guests 11:4 12:6
39:22 45:24	47:1 48:1	gear 63:19 67:21	82:5 117:16	guide 10:22
48:9,12,23,23	50:19,22 51:12	general 6:16,24	127:24	59:18
49:6,17 51:17	51:17 52:20	11:4,15 24:3	going 6:9 10:4	guided 24:23
59:8,16 60:22	53:19 54:24	64:9,14,15	13:2,16 19:22	guideline 20:14
62:19	55:8 56:11	81:16 96:1	24:13 28:2	~ 21:21
Frisbie 4:17	58:1 59:8,18	117:16 118:8	34:5 38:22	guidelines 7:1
5:16,23 6:13	60:21,21 61:2	generalized	40:11 44:7	7:20 8:5 10:17
7:21 9:2 10:15	61:15 66:7	66:21	46:4,18 48:5	22:23 73:2
11:24 12:12	67:6 69:3,11	generally 36:2	49:19 55:17	guides 10:23
		67:16 69:8,23		

	<u> </u>	1	I	1
11:12,24 21:10	64:4 67:9	101:13	102:3,13	ignoring 125:19
22:5 55:21	71:23	highest 108:3	103:13,20,24	127:13 128:6
56:2,6,11	hear 4:16,16	highway 121:24	104:4,12,20,24	III 1:11
	heard 50:20	122:16 123:16	105:5,10,14,18	Illinois 1:1,15
H	71:9 80:22	him 61:5 87:8	106:4,21 107:4	1:17 2:3,9,16
H 75:21	84:15 103:7	106:17	107:11,24	3:4 4:7 7:7
habitat 24:5	hearing 2:4 4:4	history 10:24	108:13,21,24	8:17 55:17
45:14,15,22,23	5:21 8:1,20	hits 80:15	109:6,11,15,21	57:11,12 73:10
46:3,5,6 95:9	9:13 10:4 15:6	hold 21:15	110:7,17,20	80:17 95:6
96:11 99:24	15:9 17:6,10	holding 59:19	111:5,16	100:7 101:21
101:16 102:1	18:23 26:15	home 106:21	112:14,23	121:17 132:1,6
half 85:1	30:3,20 39:21	honest 12:1	113:4,11,17,20	immediate 4:10
hand 5:1 14:11	41:4,11 42:12	27:18	114:5,10,22	immersing 65:1
43:7,15 44:19	42:23 47:16,23	honestly 61:17	115:7,15,22	immersion
70:20 104:9	49:4 50:10	hope 65:23	116:1,6,10,13	63:19 64:16
handed 11:22	55:6,13 57:22	71:13	116:24 117:3,6	65:5 79:13
15:10,20 26:16	60:4,10 61:9	hopefully 4:17	117:8,15 118:4	82:13,14
39:22 41:12	61:20 62:7,13	hoping 6:3	118:7,13,16	immune 11:20
49:5 50:11	62:20 63:1	hosted 35:9,10	119:1,13,21	impact 19:20
51:5 56:8	73:5 82:16	45:6 75:7	121:5,9,14,20	54:24 111:8,12
handing 41:4	83:4,15,17	hosts 122:13	122:10 123:14	112:3 113:7
hands 11:8,18	84:13,19 85:3	hot 129:13	123:23 124:9	impacted 119:11
64:20,24 65:1	85:17 86:6,20	hotel 17:1 24:5	124:18,22	119:18
76:18	87:22,23 88:3	46:1 59:11,17	125:13,21,22	impede 94:2
handy 76:12	92:1,11,20,24	Hotter 129:15	126:3,10,16	implications
hang 34:13	94:3,11 98:6	hours 20:13	127:2,6,11,15	119:12,20
happen 34:5	102:21 103:1	30:16 131:6	127:20 128:9	implicit 129:22
52:7 129:12	107:16 113:1	House 29:7	128:12,24	important 7:12
happening	114:8,17 130:9	housekeeping	129:6,15 130:1	13:2 21:1 25:2
25:12 34:7	130:12,22	30:23	130:8	25:9,22 26:13
40:18 43:9	131:2,8 132:8	housing 46:9	Huff's 83:18	51:20 69:24
happens 79:6	hearings 5:24	Hudzik 41:13	84:5 86:2	79:13 123:1
harbor 75:9	6:2 86:2	Huff 4:18,20	Hundreds 80:22	129:8
99:4,4	heat 38:19 112:4	83:1,6,8 85:4	hygenic 64:7	improved 101:6
hard 19:4 83:22	128:7	85:20,24 86:17	hypochloride	101:8,11
83:24 84:17,18	heating 110:14	88:6,12,18,23	120:10	improvement
85:15 103:3	heavily 68:18	89:5,10,14,19	H-U-D-Z-I-K	54:18
harmonic 121:2	109:12	89:23 90:3,6	41:14	improvements
hatched 59:15	heavy 20:9	90:10,16,20,24	T	42:18 43:5
having 5:17	73:22	91:3,7,10,15	I	101:8
32:17 38:19,21	held 1:15 38:8	91:23 92:3,5	idea 7:11	improving 53:12
62:23 80:3	help 5:10 15:1	92:13 93:5,12	ideas 122:14	incidental 76:19
81:9 83:2	68:11 69:13,15	93:15,23 94:19	identified 11:15	include 49:10
129:7	helpful 115:18	95:19,23 96:16	76:21	120:2 130:24
head 71:1	119:1	97:3,22 98:1,4	identify 92:21	included 84:6,8
heading 100:6	her 9:9	98:14,21 99:3	IEPA 4:22 7:8	includes 27:5
headquarters	heron 59:22	99:8,12,18	55:14 101:17	64:9
38:20	high 30:8 45:4	100:1,11,24	101:20	including 10:21
health 7:5,7,24	higher 21:19,20	101:5,10,23	ignored 22:8	11:16 48:19
8:9 10:14 56:8			ignores 126:12	
	l	I		

	1	1		1
92:13	insurance 24:6	join 57:11	71:10	102:17
inclusion 90:22	24:10,12	Jr 48:20	keep 13:1 65:21	known 14:12
incompatible	insure 24:2,4	judgment	65:24 66:2	75:1 79:19
12:10 65:10	intake 77:23	123:15	67:23,24 79:21	Konpel 48:1
incomplete	Integrated	jumping 74:9	105:23	-
81:20	101:21	June 30:3 56:21	key 128:20	L
increase 117:12	intended 5:10	114:6	kicked 56:24	laboratory
increasing 44:4	61:14 86:23	Juniors 18:10	kid 52:6	124:13
Indeed 65:14	interact 34:23	30:14 32:16	kids 22:7 30:17	lack 33:14 34:9
Indiana 45:12	interchangeably	just 8:18 11:22	51:14,15	93:8,17 96:10
indicate 33:9	124:19	14:18 17:3	kind 12:5 19:23	109:1
86:3 89:2	interest 73:22	18:1 21:4	20:14 21:8	ladder 16:22,23
indicated 4:11	interested 26:3	22:21 23:7,10	30:11 35:20	ladders 69:20
indicating 89:13	interferes 105:2	25:4,9,13 27:7	37:6 65:4 75:2	laden 121:12
indication 60:7	interpret 27:20	29:12 35:5	75:19 78:15,20	lagoons 26:23
90:8	introduce 62:15	36:15 39:8,10	79:4 81:10	32:9 40:6
indirect 72:24	investing 26:9	43:6 45:13	85:13 111:21	lake 14:17 34:2
individual 21:5	inviting 6:11	47:21 51:4	125:3,15	34:14 44:20
26:17 48:17	7:11 9:3 63:10	54:12 57:14	kinds 11:9 14:21	68:13,19 69:9
individuals	involved 58:15	64:14 67:11	50:6	69:23 70:2,3,6
37:20 39:5,8	involving 37:4	73:7 76:11,20	Kingsbury 46:9	70:8,11,13,18
industrial	Iowa 45:12	78:18 79:21	Kinzie 46:10	75:6 95:15
122:22	IPCB 71:13	80:15 86:14	Kirk 48:21	113:14,16,17
industry 14:20	irrelevant 9:18	87:14 93:24	knew 72:4	115:3,6,10
inevitable 65:5	Island 28:7	97:15 98:6	know 11:7 12:24	lakefront 34:15
inevitably 64:17	31:22 45:21	99:3,22 107:8	13:6 14:20	44:13
inform 72:22	46:11	114:18 118:22	21:13 24:20	lakes 69:10
information	isolated 111:3	121:4 123:1,14	26:6,11 28:8	70:12
21:18 37:23	issue 38:7 84:21	125:10 126:4	28:13 31:8	land 26:8
39:7 48:15	85:24 121:16	127:20,21	32:1,18 37:22	large 12:8 37:2
49:13 56:2	121:19	129:2	37:24 38:5,5	37:11 102:8
61:5 66:18	issues 12:10	justified 129:23	39:4 48:9,15	larger 35:4
83:24 85:2	65:10 71:6		52:7,7,9 53:21	122:22
86:7 94:9 99:7	86:4,9,24 87:1	K K	56:10,13,17	largest 26:23
106:8 110:5	items 7:9	K 132:2	61:13,17,18	80:16 107:12
inhibits 81:21	т	kayak 21:15	62:4 66:23	107:13,14,20
inland 69:10	J. J. 122 4	29:3,8,13,14	67:19,24 68:4	107:22 108:1,2
70:12	jacket 22:4	29:22 30:4,24	70:22 72:15	last 14:13 18:10
inner 99:4	jackets 11:10	34:20 65:17	74:16,21 75:9	29:24 40:22
inspired 74:14	67:21	66:4 69:19	76:2,10 77:7	51:18 58:4
install 125:8	Jackson 48:20	82:10	97:16 103:7	61:1 62:7 69:7
130:5	James 4:18,20	kayaked 34:2	104:12 105:7	77:17 80:9
installing	83:1,8	kayakers 22:11	10 <u>6</u> :1 115:15	91:7 93:23
111:21 130:21	Japonnais 46:14	65:13 71:3,15	126:1 127:16	105:19
instream 108:23	Jesse 48:20	79:5,16	127:21 129:11	later 26:7 45:3
instruct 12:6	Jessica 2:18	kayaking 10:20	knowing 34:5	86:5 92:17
instructed 12:5	7:15 14:10	37:10 77:4,7	49:20 67:9	96:7
instruction 11:5	John 62:18	78:8	74:9	launch 18:2 28:5
22:5	Johnson 2:5 4:9	kayaks 29:4	knowledge	51:7 74:19
	5:13 97:20	34:14 65:17		75:2,2,4
·	•	•	•	•

	l	<u> </u>		
launches 6:18	light 52:15	120:5,5,12	85:16 110:16	108:1 110:11
13:11 15:11	lightening 19:22	121:2 123:9,11	110:17 114:3,4	majority 49:2
16:16 43:20	20:1	123:12,20	115:19 116:18	70:4
77:23 104:9	like 6:20 7:10,14	literally 78:19	127:23,24	make 11:11 22:3
launching 75:3	9:4 26:22	80:19	looks 26:22	37:12 41:10,10
LAW 2:14	31:21 32:2	little 17:4 20:24	loop 28:4,6	58:6 69:2
Lawrence's	37:6 43:15	63:9 75:11	73:23 74:3,5,8	71:20 81:22
17:20 46:21	50:4 61:6	77:15 108:23	98:21 99:3	84:5 85:21
lead 111:24	71:10,15 75:22	126:4 127:22	100:3 108:19	makes 125:17
least 55:22	76:16 79:17	Liu 2:8 4:10	loss 119:11,18	127:18
leave 63:22	82:10 86:21	lived 59:11	lot 12:20 16:19	makeup 126:2
lecture 59:4	87:5 88:4,13	liveries 25:3	18:21 23:9	Mammoser
left 4:10	89:5 93:19	28:23 30:24	30:18 45:14	118:17
length 35:24	122:12 127:9	31:9	109:8 114:13	manage 53:21
36:11 105:15	likely 79:8	livery 28:20	120:3	managed 20:22
lent 51:19	108:21 115:2	LLC 85:23	lots 44:24 45:1	management
less 70:1,2,9,15	limit 11:20	LLP 3:2	70:13 84:8	53:24 54:2
72:16 110:13	limitation 50:17	load 107:2	122:24	122:5,9,11,14
111:2	limitations 1:6	127:24 128:3	low 97:17	managing 54:16
let 15:6 18:24	95:10 100:18	loadings 96:10	109:21 110:4	manmade 58:11
39:19 42:23	limited 99:24	loads 128:6	lower 1:8 4:5	95:24 96:21
60:5 73:17	108:11 110:23	located 87:10	87:7 88:9,16	109:6
87:4 118:22	120:3,23	88:22 107:9	91:21 95:4	many 28:18,19
letter 41:12 43:1	limits 65:13	location 31:24	97:22 98:7,12	28:23 29:19
80:9 124:10	67:24 120:20	76:4	98:16,22 99:1	31:9 32:3
lettered 114:15	125:15	locations 12:10	99:14 100:12	37:17 38:4,7
letters 48:18	Lin 2:7 4:9	13:20 16:8	100:16,22	43:21 48:9
letting 68:3	28:13 52:6	29:3 41:2	101:3,12,12	80:7 94:16
let's 15:4 25:16	Lincoln 18:3,9	65:10	LTD 42:5	100:17 115:5,9
34:17 37:14	30:13 32:15	lochs 74:12 75:5	lunch 85:11	map 75:18,18,22
39:1 52:11	43:23	75:10,12 114:1	131:4	76:17
62:9,13 70:2	line 43:5 53:20	locks 75:16	lying 79:20	mapped 58:16
71:11 119:22	79:21 108:12	76:24		maps 57:10
131:4	108:16 110:23	long 35:18	<u> </u>	marathon 37:6
level 22:15	lines 37:3	112:13 123:3	machine 102:7	March 83:12
36:19	link 104:18,21	look 16:13,20	102:17	Margaret 4:17
levels 67:10	links 85:9	20:5 32:2 37:3	Madam 83:17	4:19 5:16 6:5
101:11,13	liquid 122:17	50:24 51:5	84:13 102:20	7:17 8:15
123:4	list 25:5,7 29:2	53:13,14 84:2	made 25:20	15:16 41:7,13
liability 23:22	30:8,10 40:12	85:4,5 88:7	48:21 58:21	42:9 47:21
24:3	40:14,20 41:1	96:19 98:15	75:10 127:8	50:12
life 11:10 22:4	41:6,8,9 42:8	108:14 110:7	Magee 110:24	Margaret's
67:21 87:3,17	47:9 58:24	110:19 112:9 _	Magnolia 29:10	13:17
90:18 93:20,22	101:22 113:22	113:4 124:22	main 14:14 24:6	Marie 2:4 4:2
96:11,23 97:5	listed 31:20 56:7	looked 28:9 -	24:17 27:15,21	Marina 16:23
98:10 99:9	89:17	61:21 72:8	39:16 44:8	41:20 43:2
101:20 104:22	lists 47:1	115:16 118:12	55:24 59:11	46:20
129:9	liter 117:14,18	123:22	maintain 109:15	marine 34:21
lifting 12:3	117:24 118:21	looking 40:4	major 26:8 34:9	35:1,8,21 36:1
			35:7 72:4	
	•	•	•	

	1	1		
63:22	124:15	69:24 70:2,3,6	32:21 128:22	130:4
mark 5:22 8:6	Medical 52:13	70:8,12,18	129:5,8,14,21	MWRDGC's
8:11,21 15:7	meeting 35:9,20	113:14,16,18	more 30:17	130:3
15:13,17,21	35:23 132:12	115:3,6,11	32:15 33:22,24	MWRD's 66:16
26:18 30:21	mega 44:10	mid 53:20	44:1 68:19	126:1
31:2,5 40:1	member 2:5 5:9	Midwest 85:22	74:13 77:19	n.T
41:15,21 42:6	28:13 49:17	might 84:2	79:8 80:7 94:9	N N
42:14,18 47:17	52:6 63:23	migration 105:2	106:23 107:6	N 2:1
47:24 48:3,21	97:20	Mike 48:21	116:13 127:22	name 4:2 5:3
49:8 50:13	members 48:11	mile 105:15	morning 4:1,14	44:2 62:16
55:7 60:11,16	48:23 49:3,6	miles 14:22	63:7 64:3 73:8	names 27:19
61:10	49:11 63:12	36:16 43:16	most 14:4 22:1	44:2
marked 31:1	73:15 77:7	74:19	27:12 51:16	naming 98:18
76:17 85:13	80:13	mililiter 119:23	68:9 72:6	nanograms
88:7 91:13	memo 43:4	milk 59:15	73:20 109:3	. 121:1
marking 41:18	memorandum	milligram	122:24	national 7:20
materialized	42:13	119:23	mostly 16:18,19	natural 54:3,14
40:15	Memorial 36:15	milligrams	motion 10:1	57:13 58:6,9
materials 21:14	mention 130:7	117:14,18,23	motorized 12:8	58:11,20 93:7
matter 1:3 58:21	130:14	118:20 120:4,5	65:8	93:16 95:16,18
Matthew 92:22	mentioned	120:12 123:8	mouth 18:10	95:19 110:10
may 1:15 4:22	13:15 14:10	123:10,12,20	31:24 45:20	110:14
30:17 33:15	16:12 18:18	milliliters 71:20	51:13	nature 17:18
42:1 43:3	23:10 26:7	million 40:21,24	move 34:17	18:19 33:13
46:17 57:8	30:7 37:5	mind 42:21	37:14 39:1	34:11 58:20
85:7 92:11	43:22 44:17,22	mine 116:6	48:5 49:19	near 17:14,17
111:20 126:17	47:22 71:5	mini 69:17	52:11 71:11	114:24
127:15 129:2	106:12 110:1	minimize 123:2	movement	nearby 69:12
maybe 85:10	mentions 44:20	mink 58:17	104:22	nearly 54:10
97:12 99:13	mentorship	Minnesota	MPDS 122:1	necessarily
102:23 112:8	78:12	45:10	much 55:14	127:4
127:21	Mercury 112:10	misread 118:23	65:17 66:1,23	necessary 15:3
mayor 41:14	112:16,19,21	missing 84:1	69:8 70:1 72:1	63:19 109:19
44:6 57:1	120:21 121:1	85:1	72:16 78:4,21	need 4:23 21:16
Mayor's 35:11	merely 85:9	mixed 14:23	79:7 82:17	21:19 37:7,8
56:20	methods 124:2	18:19	122:11 127:6	37:10 43:10
Ma'am 111:5	124:16	mixing 112:1	multi-use 43:16	50:20 53:16,20
125:23	metropolitan	119:11,19	muskrat 59:10	69:18 82:20
McKee 94:24	4:21 20:6 54:7	120:14,18	59:13	needed 109:18
98:5	72:7 95:6	mixture 18:20	muskrats 58:17	needs 84:17
mean 19:12	126:19	mixtures 122:20	must 65:19	86:19 88:2
28:11 37:20	Meyers 31:6	Mobile 118:10	MWRD 7:6	negatively
46:13 74:3	Meyers-Glen	modification	53:23 58:13	119:10,18
95:22 115:12	23:8,8 31:7,13	96:2	115:20 117:2	neighborhoods
115:17 130:16	32:14	moment 8:19	131:1	6:19 47:24
means 78:17	Michigan 17:2,4	Monarch 59:14	MWRDGC 3:7	net 117:12
79:10,11 81:19	34:2 44:12,15	money 41:2	114:5 123:6,11	Network 2:20
130:4,19	45:11,12 46:1	month 105:19	123:23 125:8	Never 71:4
meant 47:3	68:13,19 69:10	months 30:15	128:5 129:19	new 29:15 45:2
				45:18 46:9,15
		l		

53:22 84:6	60:2 73:22	55:7 60:11,15	130:12,22	78:18 85:24
131:9	97:17 98:12,16	61:11 63:2	131:2,8	93:22 109:7
next 27:16 33:5	northeast	83:10,16,18	officer's 86:6	110:16 113:19
34:18 37:15	121:16	87:17	officials 48:19	117:16 122:2
42:10 54:3,14	northern 31:15	objections 19:4	often 32:18	125:17
79:21 92:10	note 5:8 13:2	objective 128:14	64:21,23 68:11	onto 87:9
nicer 116:14	noted 26:14	observation	69:12,20	open 68:12
niece 30:13	notes 132:10	61:15 82:11	Oh 5:23 91:7	70:11 112:13
night 59:22	nothing 54:12	obviously 19:11	101:5 103:20	opened 29:24
nine 12:14 30:15	63:16	118:24	oil 110:11,14	opening 46:16
32:21 97:20	notice 83:19	occasion 77:16	Okay 19:7 25:15	Openlands 23:9
nine-and-a-half	noticed 85:14,16	occupied 105:8	32:13 53:7	45:3 57:8,11
32:21	notions 5:12	occur 115:13	92:24 94:13	operating 10:19
none 8:7,12,23	Notre 45:11	123:9	124:20	113:9
1	Nova 95:4	occurred 32:4	older 21:17	operation 113:8
26:20 31:5	November 41:12	47:12	111:19	operators 65:24
40:2 41:16,23	42:14 43:1	occurs 36:21	olds 21:22	opinion 99:24
1	novice 22:10	72:6 77:4	Olsen 29:22	101:7
47:18 48:4,23	68:18,22 69:1	off 14:8 27:4	once-through	opportunities
49:8 50:14	69:5 70:7,10	56:24 65:13	120:6,8 126:5	69:16
55:10 60:12,16	novices 22:17	66:6 82:6	126:12,23	opportunity
1	nuclear 110:19	83:20,23 102:9	128:2	34:22 69:12
79:22 83:10	number 4:8	offer 13:16	one 3:3 5:5 8:8	opposed 64:7
102:17	28:14 38:12,15	offered 7:17	15:15 17:3	86:24 106:17
nonmembers	39:5 40:12	office 35:11	18:11 30:1	124:12
49:7,10	49:1 55:8 56:9	56:20 85:9	32:15 33:15	orange 11:12
nonrecreational	61:23 66:15	officer 2:4 4:4	36:5 41:8	order 86:6 113:8
77:3 89:9	67:2 89:18,21	5:21 8:1,20	42:10 43:2	ordinances
nonsummer	97:20	9:13 10:4 15:6	46:3 57:14	53:22
125:7 128:22	numbered 84:7	15:9 17:6,10	60:22 62:7	organization
129:5,13,21	114:15	18:23 26:15	64:15 68:7	6:11,21 9:5
	numbers 15:24	30:20 39:21	73:7,12 80:6	10:12 20:15
101:19	25:17 26:2,23	41:4,11 42:12	80:15,16 81:5	24:4 63:11
north 3:3 13:4	37:11 94:9	42:23 47:16,23	88:4,5 97:13	71:3 75:7
14:3,4,5 15:12	130:2	49:4 50:10	102:22 104:1	80:12,15
16:16,17 17:23		55:6,13 57:22	105:16 106:17	organizations
17:24 18:1,3,8	0	60:4,10 61:9	107:12 113:19	80:21
18:8 24:16,17	O 132:2,2	61:20 62:7,13	114:18 116:13	organize 25:24
27:7,11,12,15	Oakton 43:22	62:20 63:1	118:17 125:13	organized 84:12
27:16,16,21,23	object 33:17	73:5 82:16	ones 40:7 42:22	organizing
27:23 28:1,1,2	objecting 9:14	83:4,15,17	46:13 76:14	23:24
28:2,8 29:9	objection 5:22	84:14,19 85:3	95:3 109:6	original 15:4
31:14,15 32:4	6:4 8:6,11,21	_85:17 86:20	122:15	Origins 18:13
32:10,11 36:13	10:9 15:13,17	87:22,23 88:3	one-fourth	44:5 45:18,19
36:14 40:8,8	15:22 19:7 26:19 31:2,4	-92:1,20,24	110:10	other 5:6 7:12
43:24 45:16,17	40:1 41:16,22	94:3,11 98:6	one-third 110:9	7:14 8:14
46:17 51:8,9	40:1 41:10,22	102:21 103:1	only 6:14 9:5	12:10,17 14:2
51:13 55:22,23	47:17 48:2	107:16 113:1	21:2 22:15	14:10 18:7
59:22,23 60:1	49:7 50:12	114:8,17 130:9	31:13 50:1	21:5 23:1 25:7
	17.7 30.12			

20.10.22.16	10.04.40.10	10 17 10 10 01	00.16.05.10.10	1
29:10 33:16	40:24 48:18	12:17 19:19,21	32:16 35:12,13	path 44:14
36:21 38:22	55:20 58:5	21:18 22:4	36:13,15 39:3	pathogens 50:22
47:8 48:12	79:7 118:2	35:5 36:21	39:8,23 40:5	50:22 52:20
49:11,21 53:6	123:10	39:16 43:20	40:19,24 42:8	67:6,10
57:23 63:15	overall 101:18	44:23 57:12	42:11,13 43:4	paths 43:13
65:10,24 66:20	130:16	63:14,15,17,24	43:23,24 44:4	patience 62:6
69:21 72:6	overflow 20:9	64:7,17 66:13	44:24,24 45:17	pattern 95:20
73:6,14 77:23	66:14	66:21 67:22	45:17,18,18	pause 39:19
78:13 80:3	overflows 52:21	69:6,9 71:2	46:9,10 51:6,8	pay 20:11,23
81:18 84:4,16	53:10,19 67:7	72:2,3 73:2,19	51:9 53:14	22:14 26:4
91:11,13 96:8	72:10 107:3,6	74:13,20 77:18	59:23 73:24	paying 12:4
97:14,15	108:5	77:18,20 78:17	74:12 75:8	37:13 80:12
102:17 103:16	overlap 92:16	78:19,22 79:21	parking 120:3	PBS 118:8
106:11,24	owe 109:7	80:17,24	122:24	PDP 85:22
107:8 111:14	own 35:15 108:7	page 20:7 52:24	parks 40:6 45:1	pedestrian 44:9
114:13 118:17	owner 29:22	55:19 58:4	part 7:4 23:18	people 5:24 6:15
128:6 129:8,10	30:4	68:16 71:13	26:24 68:9	6:20 7:11,13
130:24	owners 26:8	88:14 94:8,14	74:14 78:21	9:3 10:21 11:3
others 46:20	OWP/P 41:18	95:13 96:4	93:6,23 121:15	11:19,22 12:21
49:14 74:16	oxygen 101:13	100:4,8 101:14	122:1	16:5,17 20:12
82:11	O'Brien 75:16	102:4,22,23,24	partial 78:18	21:2 22:7 23:1
otters 58:19	O'Brien's 46:14	103:4 105:20	84:8	24:16 25:4,5,7
out 7:12 11:3,5	75:14 76:24	106:8,13	partially 76:3	25:8,18,23
12:3,21 13:7	o'clock 1:16	109:24 110:21	participants	26:2,4 28:19
13:13 14:11,15	P	110:22,24	30:2	29:17,23 30:5
16:15,15 18:22		111:6 113:12	participate	32:23,24 33:10
21:2 22:24	P 2:1,1 3:6	114:3 116:4,13	20:18,20 22:11	34:14,22 37:7
24:22 25:3,5,8	paddle 12:19	116:20,21,22	22:18 38:13	37:9,15,19
25:23 30:14,18	28:6 34:1,22	116:23 117:11	participated	38:2,12,17,24
31:10,19,23	35:18 64:22	119:8,16 123:5	33:1 37:16,19	43:10 47:5
32:3,19 33:5,8	66:17 71:17	123:24 124:5,8	participating	48:10 49:2,11
34:10,11,14	74:11,24 75:6	125:4 129:18	48:13	50:5,7 51:7,10
36:2 37:7 43:7	75:7 78:5,7,15	pages 85:2	particular 89:8	51:20,24 52:1
43:15 44:19	paddled 73:20	115:23	particularly	52:4,10 55:22
46:4 51:5 56:8	74:16,16 78:3	paragraph 58:4	67:4	67:4 68:4 80:7
56:23 58:16	paddler 67:8	100:15	parties 89:3	80:23 81:11,24
64:23 65:21	70:7 72:1 82:5	paragraphs	partly 43:7	105:24
66:1,2 67:23	paddlers 37:18	111:8	parts 1:11	people's 22:15
69:6,19 74:18	63:18 65:20	paraphrase	104:13	per 24:23 80:19
78:11 79:6,18	66:16,22 68:18	73:11	pass 102:6	117:14,18,23
82:7 84:7,20	68:22 69:1,5	parentheses	passed 56:22	118:20 119:23
94:1 105:24	70:4,10 71:21	100:14	112:19	120:5,5,12
126:22	72:22 73:18	parents 22:2	passer-byers	121:1 123:8,10
outdoor 46:19	75:3 80:20,24	park 13:9,9,9	69:13	123:12,20
outfitters 82:10	81:22 82:9 ⁻	15:11,11 17:24	passing 66:8	percent 32:9
outside 32:6	paddler's 69:3	18:9,13,14	69:22 71:6	40:4 50:18
43:19	paddles 64:19	23:2,4 26:9	past 24:15 55:21	53:18 125:17
over 5:6 10:9	77:8	27:24 28:1,5	75:8	125:19,21,22
24:15 34:10	paddling 6:22	29:4 30:13	Pat 48:19	126:1,19 127:4
	11:1,4 12:14			
			•	•

	<u> </u>	<u> </u>	<u> </u>	<u> </u>
127:5,9,11,19	14:3,7,18	54:24 72:9,17	possible 25:11	124:24
percentage 38:1	15:21 16:20	106:22 108:1	50:23 64:17	presented 85:1
48:22 105:8,10	19:4,6 50:7	110:2,4 111:19	104:6	presenting
perch 113:18,19	51:17 52:10	111:20 112:12	possibly 115:3	85:23 86:7
115:3,4	physical 11:17	112:13,22	post 20:8	Preserve 58:18
performed	49:22 50:17	113:10 123:19	posted 21:16	preside 4:3
111:13	90:11 93:6,15	play 8:18 10:5,8	potential 96:6	press 57:1
perhaps 32:1	94:1 95:9 96:9	35:1 44:23	112:11 113:8	pretty 24:2
116:14	102:6	45:1 78:20	potentially	29:16 65:17
period 119:6	pick 29:12	played 9:21	120:1	66:23 109:8
Periodically	122:15 128:24	playing 81:9	power 68:23	130:17
116:16	picture 18:12	Plea 95:17	110:2	prevention
periods 120:3	41:17,19,24	please 5:3,5,8	powered 70:20	122:13
121:23,24	43:1 51:6,15	83:7 92:21	104:9 111:18	previous 99:22
123:7 129:8	pictured 18:12	94:17 106:9	practice 32:18	previously 16:13
permits 122:1,3	pictures 15:1	117:11 119:7	64:14 66:2	83:13 88:7
permitted 127:1	pie 48:16,22,24	119:15 122:7	78:10 79:18	pre-filed 5:20,22
person 13:7 32:4	49:5	pleased 48:15	81:6,14 82:8	55:18,20 57:3
32:24 33:3	pile 12:24	plenty 13:3 51:1	120:7 122:9,11	58:1,2,3 70:23
37:20,21 38:1	Ping 36:15	69:16	122:14	83:8 94:8,14
38:4 39:12,13	42:10,17 43:5	point 7:12 17:15	practices 65:4	94:21 95:3,14
60:21 67:9	44:24 73:24	17:16 22:24	67:22 122:5	96:5 97:21
80:19	74:15	27:13 47:7	Prairie 2:19	101:15 102:5
personal 61:15	place 12:19	84:4,20 86:1	80:17,20	104:14 105:21
71:7 90:14	23:18 39:16	93:24 110:21	Precaution 7:5	106:8,13 110:1
personally 14:4	44:20 54:19	114:2 122:2	precautions	110:24 111:7
34:2 73:20	places 12:21	126:18 128:10	6:24 7:24 8:9	113:13,22
77:10,11,14	13:3 14:7,10	points 15:15	10:14 11:15,16	117:11 119:8
78:1,2	16:14 29:16	33:14 65:15	12:6 64:4,10	121:10 123:6
persons 24:23	34:10 50:8	police 34:21	81:3	124:1,10 125:5
perspective 20:1	51:2	35:1,8,22 36:2	precipitation	pre-planning
63:17 69:3	Plaines 1:9 4:6	policy 2:14	20:3	37:5
pertaining	87:7 88:9 95:4	20:11	precisely 80:12	pre-wetting
112:10	98:8 100:12,17	Politicians 49:14	preclude 93:19	122:18
pertains 93:22	100:22 101:3	pollutant 119:21	preconceived	price 110:8,10
Peterson 18:3	132:6	119:22	5:12	110:11
44:16,16	plan 36:24 63:22	polluted 52:15	preferability	primary 81:1
petition 95:8	planning 35:6,9	pollution 1:1,15	124:11	printed 83:20,23
Petroleum 85:22	42:2	2:3 112:15,24	preferred 69:4	102:23
PFD 63:18	plans 26:7 37:6	113:3 122:12	preliminary	printouts 15:23
phone 63:21	40:12,18 53:14	pool 93:18	85:21	prior 86:15
68:10 69:15	54:2	poor 101:16,17	Prep 45:16	88:24 96:1
photo 16:24	plant 18:2 51:12	popular 74:11	prepare 61:14	121:5
17:3,15,17	67:3 87:10	74:24 75:6	prepared 89:2	private 13:12
18:10,16 28:9	107;9,12,20,22	population 54:5	98:5	43:21 82:9
51:15,18,19	planted 59:16	portion 89:14	preponderance	probably 39:12
photographs	59:16	128:7	123:17	98:17 99:20
23:11,15	planting 45:15	portions 111:14	present 12:1	109:3,22
photos 13:5,15	plants 23:19	possibility 20:3	31:19 50:22	122:24
L	•	•	•	•

24.016	1.00.10	56.2.71.14	95.10	06.0
problem 34:9,16	protected 68:19	56:3 71:14	85:12	86:8
85:16	69:11 121:13	79:24 86:4	quickly 78:14	reasons 69:6
problems 85:7	protection 2:9	93:19 95:9	89:3	91:12
procedures	23:23 93:20	101:11,21	Quigley 48:21	recall 87:15 92:7
10:19	protective	112:16 117:20	Quinn 48:19	130:6
proceed 85:20	128:16	119:24 120:15	quite 77:16 94:7	receive 56:3
proceeding 7:4	protocol 11:23	120:18,19,21	126:13	received 59:4
119:4 130:7,14	protocols 6:10	120:22,24	quote 100:7,9,11	83:21
proceedings	6:23 10:12,16	121:7,8,22	105:21,23	recent 75:1
1:14 62:12	21:24 22:20	124:3,21	quoted 52:13	recess 82:21
82:22 118:7	53:22 63:11,13	quantify 106:9	quotes 101:17	recirculated
132:7,12	63:15,24 64:2	question 4:23,24	R	127:7
process 23:19	64:5 65:20	5:5,9 6:10 9:1	-	Reclamation
53:13	67:15,17	9:7,20 10:3	R 2:1 95:12	4:21 20:7 54:7
Product 92:18	provide 22:4	13:21 15:5	race 21:15 34:20	95:7 126:20
Products 92:8	104:22 110:4	16:1 19:11	36:12 38:16,21	130:20
92:10,12,23	provided 16:20	24:14,14,20	44:22 45:9	recognize
professional	provides 46:2	25:13 27:4	races 35:17	121:19
123:15	providing 10:2	33:5,20 34:18	radio 63:22	recognized
program 10:22	provisions	36:18,18,19	rain 20:9	100:19 121:14
33:1 78:12	112:19	37:15 39:2	raise 5:1	recommend
programs 6:14	pub 47:4	40:11 48:6	raised 9:12	67:4 121:18
6:22 10:20	public 6:12,17	49:20 50:16	range 21:8	recommended
12:14 19:19	6:17,18 7:7	52:5,12 55:19	Rankin 111:1	10:18
21:3,18 24:11	13:14 26:6	56:15 57:2	Rankin's 95:8	record 5:8,11
35:5 39:4,16	30:3 43:22	58:2,3 62:3	Rao 2:6 4:10	6:3 30:2,22
progression	49:5 51:3 67:9	63:8 67:1,14	rated 101:16	62:14 83:5,6
54:11,13	71:23 72:4	68:15,20 71:1	102:1	85:19 92:5,21
prohibit 106:2	Publication 8:10	71:12 72:21	rather 70:5,7	94:4,16 98:7
project 18:14	published 7:3,6	87:14 94:14	reach 26:12,17	102:20,21
24:5 44:10	52:23 54:6	98:15 99:22	110:5	recreation 12:11
45:23 46:7,10	56:19	103:9 106:6	read 89:20	44:21 45:13
57:7,11	pull 66:6	108:8 112:23	92:15,22,22	58:7 75:19
projects 40:21	purpose 79:8	119:14 126:9	93:13 118:1	76:19 81:1
40:23 41:1,8,9	purposes 86:10	127:13 129:3	reading 129:1	91:19 106:2
42:9 44:17	put 7:1 10:17	130:13 131:4	ready 5:14 6:6	recreational
45:22	28:5,8 46:5	questioning 6:7	82:19 93:1	43:12 52:19
promise 86:22	51:22 91:13	questions 4:20	106:7	53:8 65:11
promotion 39:9	126:23	5:8 9:11,16,23	real 22:15	71:21 72:22
proper 93:17	putting 27:24	26:22 43:12	realize 128:12	75:24 87:2,15
109:16	64:24 128:7	55:15,18 57:23	really 6:14 9:21	87:19 89:6,15
proposal 75:21		58:1 62:8 63:5	9:22 14:23	90:2 91:17
86:5	Q	70:24 73:6,8	18:20 20:22	93:4 94:2
proposed 1:10	QHEI 97:22	73:12 85:20	21:1 26:2	redevelopment
4:6 71:18	98:2,22 99:1,7	86:13,17,18,23	38:16 63:9	18:16
75:19 76:1	99:14	87:3,3 92:9,18	86:20 94:10	reduce 86:23
77:2 111:9	Quail 62:18,18	94:7 97:15,21	reason 28:14	reducing 123:4
112:16 121:1,8	quality 1:5 4:5	131:6	81:20 94:20	refer 100:9
121:15	10:17 11:1,6	quick 79:16	100:8 108:3	101:20
	12:2 53:12		reasonableness	
program processor de confessiones de Confessio				

	1	1		1
reference 98:19	rent 29:6,17	113:15	9:5 10:24 11:3	16:18 51:4
99:22 100:13	rental 25:6	Residential 46:8	12:16,17,18,22	Riverfront
106:7	28:17	residents 111:12	13:3,8,9 14:5,8	17:20
referenced 7:18	rentals 29:10	Resources 57:13	15:11 16:12,15	rivers 2:19
8:15 9:9 42:9	44:23 57:16,18	respect 56:14	17:24 18:22	69:11 97:11
47:15	rented 59:18	85:24 90:1	19:18,18,20	Robert 2:12
referencing	renting 28:20	91:4 106:11	20:12 21:3	Rockwell 36:13
100:12	rents 29:4,8,15	107:1 108:17	22:16 23:1,6	role 25:24 34:23
referred 41:7	repeat 33:3 97:4	122:5,16	24:7,9,10,17	roll 79:1,2,3,10
57:3	115:8	response 13:18	25:10 26:3,10	79:19,22 82:5
referring 17:7	repeaters 33:6	73:11	26:16 28:1,19	rolling 82:6
57:6 64:8 74:7	repeating 42:21	responsive 9:1	29:2,2,3,5,9,16	rolls 78:10 81:14
76:11 93:5,9	repeats 37:22	9:16 10:3	29:23 30:4,6	Rom 10:10
94:18 98:3	rephrase 63:8	rest 32:10	30:15,24 31:4	15:20 19:2,6
100:16 102:16	68:20	restaurant	31:16 32:5	83:9
111:16 125:17	replace 83:14	17:20	34:6,19,23	Ronan 45:17
refers 103:10,11	replaces 83:12	restaurants	35:24 36:11,23	Room-9-40 1:17
124:11	report 1:14 95:1	44:23 46:12,18	39:3,22 40:13	rough 75:2
refinery 88:21	95:5 98:4,7	47:1	40:23 43:9,13	round 59:22
reflects 37:1	101:22 102:2	result 48:8	43:23 44:4,9	row 18:10 25:6
regard 56:16	114:6,12	retention 122:23	44:11 45:1,5	88:15
102:10 129:19	115:20 130:2	return 68:6	45:17,24 46:4	rowers 17:14
regards 4:14	reported 114:11	revenues 57:17	46:11,11,13,20	rowing 29:7
regatta 45:7,8	132:7	review 35:23	46:23 47:17	31:19,21 45:6
regattas 45:4,5	reporter 5:7	reviewed 91:1	49:6 50:16	80:21
regime 125:3	131:9 132:5	94:15,19,22	51:9,21 52:23	rows 30:13
regimes 96:18	reports 52:13	95:1,2	53:3,12 54:6	31:23
region 106:15	94:16,17	re-designation	55:9,24 56:16	rub 11:9
regions 97:12,15	represent 5:4	111:10	58:6,12 59:1,9	rule 79:5 112:16
regulated 127:1	26:2	ride 14:13	59:17,18,18,20	118:2 121:15
regulation	representation	Riders 29:11	59:23 60:5,8	rulemaking 9:18
117:19 118:23	40:17	Ridge 29:7	60:12,23 61:6	27:2 48:8,11
regulations	representatives	right 4:9 23:15	62:19 65:1	48:13 72:12
111:17,24	48:20 92:12	24:21 25:1	66:5,22 68:17	74:9
112:15	represented	27:2 44:12	71:16,17 72:23	rules 112:10
related 93:7,16	80:8	46:22 47:10	73:23 75:5,11	run 39:10
relative 32:17	represents 26:5	54:2 59:9	82:6 88:10	running 37:7
72:9	require 11:10	90:16 91:2	97:2,8,18	runoff 52:21
relatively 66:6	112:20 122:1	94:11 110:8	98:13,17,20,24	53:9
released 56:21	requirement	116:10,24	99:11,17 100:2	runs 64:22
relevant 9:19,19	122:4	120:22 127:4	100:17,22	run-off 67:6
58:12 90:9	requires 64:17	127:10	101:3 102:12	107:10,23
reliable 66:20	rescues 78:10	ripples 93:18	102:13 103:11	108:1,7 121:12
remain 1 <u>0</u> 0:19	81:15	risk 33:12,22	103:12,19,23	121:23 122:23
remaining	rescuing 33:10	51:22,24 52:5	104:3,19 105:3	123:16
127:12	Research 42:4	67:10 72:9,16	105:4 109:13	Ryan 30:3
remember 21:1	reserved 92:10	Riso 17:1	120:11,13,14	R08-09 4:8
60:23 76:15	reside 113:17	river 1:9 4:6	120:17	R08-9 1:9
removed 50:23	residence	6:20 8:16,22	riverbank 13:13	S
	•			

[1		<u> </u>	•
S 2:1	102:11 104:10	8:22 15:14,18	sewage 50:19,22	shorthand 132:5
safe 12:9 16:8	104:16 109:4	19:3,7 26:19	78:7	132:7,10
34:22 49:24	110:3 111:2,14	31:5 40:2	sewer 20:4,6,9	shot 18:12
65:9 66:7	Saturday 24:7	41:16,23 42:7	52:21 53:1,9	show 9:4 13:5
67:22 71:20	61:6	42:16,20 47:18	53:19 66:14	14:7 75:17
72:23 79:16	save 86:17	48:3 49:8	72:10 107:2,6	showing 59:9
safer 69:8 81:22	saw 23:13 70:23	50:13 55:10	108:5	75:18
safest 105:23	saying 52:14	60:12,16 61:12	sewerage 67:7	shows 17:16,18
safety 6:10,23	103:6 114:18	63:3 83:10,16	sewers 53:6	18:10,18 25:7
6:24 10:12	114:19 124:14	seem 128:3	123:17	48:22 54:5,8
11:2 19:24	126:16	seen 11:13 54:4	shading 60:6	57:10
21:23 22:20,22	says 21:19 30:14	58:16 77:12,15	shaft 64:22	Shundar 2:7 4:9
36:19,20 37:5	43:15 52:24	101:8,10	shallow 108:11	shut 112:6
63:10,13,24	57:10 58:18	segment 87:8	108:15 110:23	sic 17:1
65:20 67:17,19	scanned 84:24	88:20 90:15	sharing 68:22	sick 56:11
78:20 81:3,14	scanning 84:21	97:10	she'll 41:9	sickness 52:8
81:16,22	scattered 31:16	self 81:15	ship 14:15 24:19	side 18:1,4,7,11
121:16	scenario 120:16	self-rescue 79:4	51:16 56:2	35:24 41:21
Sag 14:16 23:5	scheduled 92:13	sends 36:3	76:23 86:16	43:2 45:16,17
31:20,22 45:7	scheduling 86:6	Senior 2:6	87:9,20 88:21	51:13 64:20,20
45:8,9 76:23	Schematic 42:18	sense 28:22	89:15 91:21	111:19
96:6,13,14,20	school 30:9 45:4	29:18 38:11	96:12,22 97:1	sides 41:17
100:1 102:14	Scientist 2:6	41:10 49:2	97:7 98:1,12	102:19 103:14
103:12 108:14	scope 36:10	66:21 68:1	98:23 99:1,13	Sierra 2:20
109:2,23 111:3	score 97:23	70:9 71:24	100:6,10	signed 80:8
salt 121:12	98:22	78:16	101:16 102:11	significance
123:18	scratching 70:24	sent 60:21	102:14 103:13	109:13
Salzman 51:18	sea 18:20,21	sentence 100:5	104:10,16	significant
same 12:18	71:3	separate 33:5,7	105:8 106:10	33:12 111:9
13:24 19:5	season 11:2	92:19	106:21 107:7	119:12,19
22:13 63:14	seating 46:19,23	separated 59:1	108:18 109:3,4	126:13
81:4 100:15,18	second 7:23 8:8	series 13:5 14:2	109:7 110:3	silty 108:20,22
103:21 107:11	15:15 27:14	14:6,24 47:1	111:2,10,14	similar 86:14
108:4,18	41:10 88:14	50:7	113:15,23	96:20,22 99:5
109:11 112:23	105:16	serve 36:5	115:1 119:10	99:13 102:18
114:18 117:2	seconds 79:11	served 44:6	119:17 120:4	simply 20:2 89:2
120:16 124:17	section 14:9	serves 107:13	123:10 126:14	since 19:5 63:9
125:2 128:1	101:22	serving 107:24	126:18	96:2 97:11
sample 50:7	sections 102:15	108:2	shipment 106:23	100:23 101:4
sanctioned 57:4	see 14:19 16:21	set 69:6 118:19	shipping 96:10	Sinuosity
Sanctioning 8:5	17:14,22 18:6	124:21 125:7	99:23 109:16	109:10
sand 122:20,20	18:15 34:6	128:13,15	shore 14:6 17:23	sir 88:12 91:15
sanitary 14:15	40:3 43:10	sets 86:2	24:16 27:16,23	118:4 121:9
24:19 51:16	51:1,10 59:13	setting 124:2	28:3 31:14	site 42:4 75:2,3
56:1 74:17	61:5,24 70:7	125:15 128:10	40:8 43:5	122:11
76:23 87:9	85:7 89:9	seven 36:16	55:23 69:19	situation 103:15
91:21 96:24	90:18 111:20	several 10:15	73:22 108:12	six 21:9,11,16,19
97:6 98:11,23	115:1 116:15	17:2 59:19	108:16 110:23	30:16 32:20
99:1 100:6,9	seeing 6:4 8:7,12	severe 112:3	Shoreline 42:17	71:12 97:12
				1

	•		1	1
105:14 113:21	82:8	specify 17:7	starts 18:18	stopped 76:13
114:9	sometime 46:17	speculate 67:13	state 5:3 24:15	storm 19:19
skill 22:15	soon 127:20	speculating	37:15,18 39:2	52:14,20 53:9
skills 11:1 81:22	sorry 17:8 32:14	107:5	44:14 45:12	53:21,23,24
skip 24:13,19	51:8 61:18	speculation	55:20 57:3	54:1,16 67:6
25:16 36:17	87:6 92:22	107:5	58:5 80:17	72:10 107:10
38:6 67:1	97:3 100:24	spent 40:21,24	94:6,15,17	107:15,22
68:14 72:20	103:5 106:16	splash 65:2	95:14 96:5	108:4 122:3,12
Skokie 23:4	107:18 115:7	spoke 32:22	100:17 101:15	storms 68:2
26:23 29:6,8	118:1 119:13	sponsor 37:17	102:5 110:22	straight 109:8
32:9	130:11,22	sponsoring 38:3	111:7 113:13	130:17
skulling 79:20	sound 127:8	sponsors 19:13	117:12 119:9	stream 101:18
81:15	source 60:19	sport 78:9,22	119:17 123:6	124:12 125:2
slides 16:14	61:7 72:4	82:14	124:1 125:5	street 17:21
slideshow 14:24	125:9,11,16	spring 35:10	129:18,22	27:11 36:16
slightly 21:20	sources 49:21	56:6	132:1	43:23,24 44:14
99:13	110:18 122:2	Springfield 4:13	stated 11:21	44:24
slope 109:20,22	125:19	SS 132:1	68:17 71:13	streets 37:8
small 6:14 59:8	south 14:15	Stacy 23:8	statement 52:16	stressed 11:21
65:18 66:4	15:12 17:17,21	staff 5:10 10:22	69:7 77:17	stretch 65:12
69:17 70:20	18:1 24:18	13:7 60:23	94:20 100:7	77:9,15 78:2
71:10	27:11,15,21	stakeholder 7:4	119:8,16 124:4	stretches 77:21
snapping 59:19	36:14,15 46:19	48:18	129:24 130:18	103:14 104:5
snapshot 59:8	46:22 55:24	stand 69:19	statements	strictly 127:23
snow 121:12,23	59:20 74:19	standard 4:5	85:21	strike 125:10
sodium 120:9	99:11,14,16,16	10:19 20:14	States 7:2 8:2	structure 46:2
122:6,9 123:3	103:22	22:23 63:23	stating 34:19	students 45:9
soft 17:16,18,22	space 66:5	65:3 66:1	station 44:5	stuff 12:24 84:6
18:13,17,20	111:23	71:18 117:16	stations 37:9	85:2
sold 110:9	speak 5:5,6	118:9,19	98:22	subcontract
solids 101:12	80:11	119:24 120:7,9	stay 65:21 66:2	39:10
some 13:4,19,22	speaking 27:8	120:15,24	112:13	submitted 80:9
16:7 20:15	31:7 121:7	standards 1:5	stead 5:14	92:7 94:16
28:7 46:13	special 20:23	64:13 71:15	steady 69:21	subpart 58:8
63:20 64:2	21:23 22:19	117:20 120:18	steep 93:8	subscribe 66:16
66:13 77:7,19	35:11 38:19	120:19,22	Stefanie 2:10	subscribers
82:20 83:22	63:16	121:7,8,22	stem 14:14 24:6	80:14
84:1,5 95:2	species 54:9	124:3,21	24:18 27:15	substrate 93:17
106:12 108:15	55:1,8 58:13	standpoint	39:17 44:8	108:20,22
111:21,21	58:16 61:24	96:24 97:6	55:24 59:11	suction 70:20
113:24 122:21	115:5,9,12	98:11 99:10	step 53:13,13	suctioning 71:8
126:22	116:15	stands 108:2	54:3,14	suddenly 37:12
somebody 9:24	specific 11:14	start 4:19,20 6:8	Stephanie 55:16	suggest 113:14
126:16	27:4 64:11	6:9 37:11	steps 53:16	suggesting
someone 47:4	73:1 81:11	40:16 42:24	Stickney 107:8	121:11
58:14	92:18 122:11	55:18 58:3	107:12,20,22	suggests 71:24
something 6:7	specifically	63:8 70:5	still 52:18 117:1	suit 63:20,20
35:17 38:24	11:21 102:1	71:12 119:22	131:5	suitable 89:15
59:3 79:2 82:5	122:4	started 116:3	stop 47:14	Suite 2:15 3:3

<u></u>	I	I	T	t .
sulfate 117:13	60:15 61:22	55:4	57:3 63:3	108:18 129:12
117:16,20	65:16 66:5,23	team 18:9	68:17 73:11	things 7:14
118:3,19	68:4 69:4 70:5	teams 25:6 30:8	82:18 83:8,11	11:10 14:21
sulfates 117:22	71:7 73:3,18	30:9,9 31:3,8,9	83:13,19,20	69:21 79:19,23
Sulski 2:12	73:21 79:23	37:18 38:21,21	84:16 85:23	81:12,14,17
summary 89:1	100:13 103:11	45:5	86:3,11 87:16	82:1 84:11
91:16 116:14	105:4 126:2	technical 4:11	89:1 91:14	think 5:14 7:12
summer 14:13	systems 11:20	86:7	92:8 94:15,21	13:2 14:21
29:24 44:7	104:19,23	technically	95:14 96:5,7	16:10,11,17
59:12		113:3	96:13 100:5	19:1 21:1
summers 59:19	T	technique 79:4,9	101:15 102:5	24:20 25:1,8
Summit 74:22	tab 84:23	tell 78:24 87:4	104:14 105:21	25:22 26:5,13
74:24 104:8	table 89:1 114:3	118:14	106:9,13 110:1	27:3,12 30:7
summon 68:11	114:20,22	tem 27:21	110:24 111:7	33:21,23 34:7
69:13,15	115:19 116:1	temperature	113:13,22	34:10,16 35:6
Sun 46:24 47:21	116:19	125:12,14	114:4 117:11	36:18 37:3
47:23 48:2	take 10:8,20	128:11 129:5	118:11,15	38:6 40:16,22
support 13:17	11:3,5 14:23	129:15	119:3,9 121:11	43:8 44:9 45:2
81:19	19:21 21:2	temperatures	123:6 124:1,10	47:4,6 50:18
supported 34:20	23:18 25:3,4	125:7 128:14	125:5 128:17	50:20 51:19,23
sure 11:11 15:2	25:23 39:16	128:15,22	129:1	52:4 53:16
15:8 19:10	46:4 50:20	129:13,21	testing 61:18	54:2,10,20
20:13 22:3	62:9 72:21	130:3	Thank 41:21	58:19 60:2
27:8 31:21	74:18 84:2	ten 30:15 40:22	55:13 57:20	62:3,6 66:15
37:12 41:20	85:5 106:17	54:9 74:19	78:4,23 82:17	68:15 72:2
60:3 69:2	113:6 119:21	106:19	88:1 91:24	73:13 74:18
98:14 99:18	126:21 131:4	tend 12:23	117:9 129:17	84:4,23 87:18
103:10,20	taken 22:8 53:15	tending 4:12	Thanks 62:5	88:24 93:1
105:22 125:13	54:19 55:21	tenth 38:10	their 12:23 22:2	102:21 103:8
surface 108:7	62:10 82:21 126:22 132:11	tenths 105:14	22:4 30:11,12	107:19 115:18
survey 48:8		ten-minute 62:9	30:18 38:19	116:6 119:2
suspended	taking 24:23 25:8 108:3	terminology	40:6 43:17	121:20 124:22
101:12	113:15 128:4	74:10	46:18 70:5	126:10 127:15
swallowing	talk 4:13 11:6,7	terms 25:18,18	80:24 82:12,13	130:15,17,19
11:17	128:18	63:17 82:7	89:4 90:4,7	131:5
sweep 11:11	talked 9:2,6	124:17	91:19 112:4,5	thinks 29:23,24
sweeping 64:19	68:16 81:3	terrifying 34:3 testified 5:18	112:10,12 122:15 123:20	third 51:14 59:7 Thomas 2:5 4:9
swimming 49:23 52:7 59:10	87:18	62:24 83:3	themselves	4:18
sworn 5:17	talking 19:16	118:18 129:7	23:24 80:23	Thompson 1:16
62:21,23 83:2	21:7 24:21	testify 92:13	theres 45:14	THORNBURG
83:7	32:23 47:10	testifying 92:4	thermal 95:1	3:2
system 1:8 4:5	54:11 55:4	testimony 4:16	96:18 112:2	thoroughly
13:22 14:17	57:15 63:10	5:20,23 6:5 9:9	120:16 124:2	11:19
16:12 23:6	64:6 75:13	9:22,23,24	125:3 127:24	though 126:24
27:1 29:13	112:14,18,24	10:2,2 15:16	128:3,6,15	though 120.24 thought 74:6
30:6 33:15,18	121:6 124:6	26:7 32:23	thing 12:5 19:23	128:14 129:7
34:6,11 43:9	talks 30:12	45:3 48:6	47:8 79:16	thousand 30:1
47:2 55:9 59:5	TARP 53:1,4,17	50:11 55:20	103:21 105:23	thousands 24:8
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	53:17 54:15,16		100.21 100.20	111011011111111111111111111111111111111
	<u> </u>			

	I	I	I	<u> </u>
25:4 39:2	92:24 94:3,11	56:6 78:13	117:10 124:2	upstream 32:5
80:19,23	98:6 103:1	trained 22:5	124:15 125:15	104:16
three 4:16 28:14	107:16 113:1	training 78:21	type 89:16	urban 68:9
69:18 89:18,21	114:8,17 130:9	transcript	types 124:15	urge 63:17
106:22 110:1	130:12,22	132:10	typical 35:7	USA 8:4
111:18	131:2,8	Transportation	51:10	use 6:12,15 7:11
through 6:19	today 4:15 5:14	35:14	T 7	7:13 21:3
14:14,23 16:13	19:16 80:22	treatment 18:2	U	35:13,14 45:16
29:19 64:19	85:23 86:11	23:19 51:12	UA 90:8	63:12,15 65:11
71:2 73:23	91:14 92:3,6	52:17 54:24	UAA 87:6 88:8	73:22 75:19,24
74:10,12,12	100:20	67:2 72:9,17	89:17 90:18,22	85:24 87:3,3
75:5,9,10	told 21:11 29:21	123:19	91:19 95:4	89:6 90:2,2,18
84:10,14	30:4	tributary 107:7	98:4,7,8,16	91:5,17 93:4
103:20 104:12	Tom 62:16,22	tried 86:9	99:7	94:22 101:18
108:19 114:1	top 85:1 93:6	trip 22:6 28:3,12	unaware 12:16	110:5 117:16
115:19 117:5	110:22	trips 24:23 25:2	under 21:9,11	118:8 121:13
123:18	total 39:5 55:7	25:21,23 26:17	44:11,12,14	122:5 128:16
throughout	61:23 125:18	27:19,22 28:14	45:18,23 79:8	129:19
14:21 31:17	126:17	28:19 32:4,24	79:10 100:5	used 67:17
33:15 43:18	tough 74:8	33:3 36:23	125:2	68:18 75:23
65:15	tour 14:13 15:21	37:20,22 38:1	understand 12:2	122:12 124:16
tied 13:1	18:17 23:10,14	38:5 39:12,14	26:24 57:9	124:21 125:14
time 5:5 10:8	44:2 68:23	39:23 80:19	64:11 72:6	126:6,13,23
14:1 33:10	Tourism 8:17	trout 116:16,17	86:1 92:16	users 29:19
39:20 51:11	toward 70:21	trucks 65:19	understanding	uses 6:17 12:11
66:17 68:5	123:3	true 53:5 109:1	19:15 31:18	63:14 86:15
71:17 82:20	towers 41:20	109:16,22	53:4,17 88:20	87:15,17,19
86:5 112:9	43:2 111:22	125:20 132:9	89:12 90:14	89:4 91:21
times 11:11	125:9 129:23	truly 106:10	106:4 117:15	93:20 94:2
19:13 46:24	130:5,16,21	try 73:10 76:15	129:3	using 6:20 9:6
47:21,24 48:2	Town 36:15	78:12 79:5	understood 21:6	50:6 51:21
66:10,24 112:7	42:11,17 43:5	80:4 81:9	94:12	95:17 99:6
tip 79:7	44:24 73:24	125:1 127:16	undoubtedly	124:16,18
Tipsord 2:4 4:1	74:15	trying 14:8 15:3	113:24	utility 110:12
4:2 5:21 8:1,20	toxic 52:15	86:18 93:24	unique 96:9	utilize 65:19
9:13,17 10:4	tracing 76:18	96:17 98:15	106:10	utilizing 128:21
15:6,9 17:6,10	track 37:23 39:7	123:2 126:11	Uniqueness	U.S 7:8,21 21:20
18:23 26:15	tracking 49:13	tunnels 53:19	100:6	24:12 34:20
30:20 39:21	traffic 13:23	turn 4:24	unit 4:11	42:3 48:20
41:11 42:12,23	16:2 27:7 36:6	turning 18:4,5	United 7:2 8:2	106:1
47:16,23 49:4	36:7 65:9	60:1	University 31:23	T 7
50:10 55:6,13	68:16 109:17	turtle 59:20	45:10,10,11	V
57:22 60:4,10	trafficking 12:9	Twait 118:16	Unlike 25:3	valid 100:20
61:9,20 62:7	trail 43:18 57:4	two 7:13 8:14	unrelated 93:19	variance 118:8
62:13,20 63:1	57:10	13:9,14 30:16	until 4:24 75:1	varies 38:16
73:5 82:16	trails 43:17,19	36:5 41:5,5,9	unusual 71:5	various 104:13
83:4,15 84:19	45:2	56:15 67:2	upfront 35:6	Veraldi 60:22
85:3,17 87:23	train 10:21,23	92:3 96:18	upper 32:4,11	61:2
88:3 92:1,20	10:24 11:24	104:23 105:6	97:1,7 99:11	version 102:23
			104:2,16	102:24

	I	I		1
Versus 49:6	want 37:12	117:20 119:24	wearing 22:3	62:12 64:1
vertical 102:10	51:21 55:3	120:6,7,8,15	weather 19:14	72:17 73:14
102:15,18	67:12 69:1	120:17,19,21	19:16,17 20:2	74:6 75:3 81:4
103:6,14 104:5	73:10 78:16	120:22,24	20:10 66:11	82:22 84:4,12
very 20:19 21:7	79:14 84:2	121:6,8,21	125:24 127:17	85:15 86:9
28:18 36:24	85:20 94:6	122:3,12	web 20:7	92:9 103:5,8
43:8 45:21	130:15	123:18 124:2	website 20:7	111:17 112:19
55:14 66:1	wanted 9:24	124:21 125:10	21:17 30:11	117:21 118:20
71:1 78:4,9,21	31:1 43:6	125:11,16,18	66:17 83:21	west 18:4 35:24
79:15 80:18	96:19 97:16	126:5,12,20,22	85:6	Western 43:24
82:17 84:9	106:20	128:2 129:13	Webster 27:11	104:8
86:13 101:17	wanting 30:21	129:15 130:20	weed 43:24	wet 19:14 20:2
102:8 108:17	wants 10:6	waterbodies	59:15	63:19 65:6
109:21	warmer 69:23	96:19 102:18	week 30:16	66:10 78:9
vessel 71:6	washing 11:8,18	106:11 107:8	32:20	wetlands 46:2
vessels 71:10	wasn't 9:7	waterbody	weekend 75:8	we'll 15:21
vests 11:12	waste 18:1 51:12	106:24	weeks 48:17	19:21 39:19
viable 73:19	52:17 123:18	waters 56:4	well 6:13 7:2 9:2	48:3 50:13
vicinity 96:1	watched 22:7	68:19 70:11,12	10:18 12:12	63:7 79:18,19
view 10:7 73:18	watching 44:18	99:21 101:9	13:14 14:7	131:9
viewed 10:6	water 1:5 4:4,21	waters's 69:22	22:1 24:10	we're 5:14 6:3
views 89:4	10:16,24 11:6	waterway 1:7	29:6 33:21	9:10 24:20
Village 43:23	11:6,13,17,18	4:5 14:22	35:3,15,20	47:10 53:3
visual 43:8	12:2,4 18:1	32:19 59:5	39:19 50:3	54:11 63:9
vis-a-vis 71:10	20:6 22:22	60:14,21 61:22	52:3,22 53:11	83:5 84:14
73:2	29:11 33:11	95:24	54:16 58:10	93:1
Vital 106:14	34:15 37:8	waterways 7:24	59:4 64:5	we've 28:8,9
volunteer 10:22	45:2 50:19	8:9 10:14	71:12 78:8	38:7,15 50:19
24:8 33:10	51:12 52:17,20	33:13,14 49:21	81:13 84:13	51:5 54:4
volunteers 24:9	53:9,12,21,23	49:22 64:4,12	87:18 89:14	68:15 84:15
36:4	53:24 54:1,7	68:22 94:24	90:10,11 93:5	85:13 91:13
votes 36:5	54:17 56:3,12	95:10,16,17,18	94:2 95:23	118:23
	57:4,10 63:16	103:17 105:6	97:14 98:21	whatnot 78:21
W	64:11,18,21,21	wave 102:7,16	100:1 101:10	while 14:19
Wabash 44:13	65:1,16 67:6	waves 70:2	107:4 108:19	126:16
44:15	68:12 69:23	102:8,9	108:24 109:15	white 115:3
Wacker 2:15 3:3	71:6,14,16,20	way 5:24 6:20	112:2 114:17	whole 35:24
wading 49:23	72:5,11,23	16:11 20:21	116:1 118:16	36:11 46:15
50:8,11,24	79:11,13,17,18	25:3 32:3 34:5	130:1 131:1	93:13 128:10
51:16 52:1,6	79:20,24 80:3	37:23 49:12	well-being	wider 109:3
wait 4:23 5:1	81:19 86:3	68:11 84:12	106:15	width 108:24
wake 102:9	93:16,19,20	103:9 106:10	went 53:20	Wildlife 61:10
wakes 70:1	95:6 96:8	117:18 121:21	were 6:1,3 13:10	Williams 2:11
walk 44:11	100:12 101:11	123:3	13:12,13 14:8	42:21 73:7,9
46:11	101:21 103:10	ways 50:6 69:20	28:20 32:9,16	74:2,6,21
walked 115:18	104:18 105:17	80:2 81:8	40:4,5,8 47:5	75:12,17 76:5
wall 18:20,21	105:24 107:10	weakened 11:19	48:17 50:2	76:13,16 77:10
walls 18:19 46:4	107:15,23	wear 11:12	52:13 54:8,10	77:12 78:4
102:10,15,18	108:4 112:16	63:18,18	57:15 60:7	87:2,13,21
103:6,14 104:6				
	I	l	I	I

	1	1	I	
97:24 114:2,7	38:7,15 40:22	124:8	261 8:12,13	301 1:12 4:7
114:11,19	55:21 58:5	1300 2:15	262 8:22,23	302 1:12 4:7
115:17,23	61:1 71:4	131.10G 94:5	263 10:10	303 1:12 4:7
116:3,8,11,22	112:20	14 117:5 129:18	264 15:13,14	303D 101:22
117:1,4,7,9	yellow 76:17,21	146 125:4	2640 24:15	304 1:12 4:7
118:5,11,14	115:4	15 42:1 43:3	25:18 32:23,24	312 2:17 3:5
119:2 125:20	yesterday 4:12	106:18	55:22	33 2:15
125:24 126:8	Yoder 129:6,11	1500 29:9	265 15:18,19	3400 36:13
127:3,8,14	130:2	16 116:9	17:11,12	35 1:11 10:23
128:9,17	Yoder's 95:1	16th 17:21 30:3	266 15:22 19:2,3	357-1313 3:5
130:19	125:6 128:19	17 100:8 116:6,8	266A 19:5,7	
willing 26:4	128:20	18th 36:16	267 26:19,20	4
wind 69:11	young 20:19	180 48:17	268 31:3	4 24:14 68:15
Wisconsin 45:11	21:7	1970 100:23	269 31:5,6	90:22 101:14
wish 108:8	***************************************	1970's 100:19	27 5:24 6:2	102:23 103:4
witness 72:19	Z	101:4	75:20 76:9	105:20
75:18 78:8	zero 118:3	1974 55:10	270 40:1,2	40 94:5
86:15	126:24	1998 26:17	271 41:15,16	400 71:19 80:13
witnesses 4:17	zone 119:11,19	114:6	42:24	4400 3:3
94:22 95:2	120:14,19		272 41:22,23	45 13:12
Wolf 17:14,16	zones 112:1	2	43:1	4600 37:15,19
work 54:14,16		2 6:10 47:19	273 42:6,7 43:2	47 13:11 15:11
75:1 84:14	\$	48:4 58:4	274 42:15,16	
worked 58:5	\$22 40:24	94:14 95:13	43:3	5
working 54:1	\$73 40:21	96:4 111:8	275 42:19,20	5 68:16 90:11,23
workings 12:15		2-2 114:20	43:4	93:4 102:4,24
works 61:3	0	2-3 114:21	276 47:18 56:16	109:24 124:10
worry 129:4	084-0003437	20 48:18	277 48:3	500 117:14,18
wouldn't 53:5	132:17	20th 57:8 92:11	278 49:8,9	117:21,23
67:12 104:21	1	2000 30:1	279 50:13,14	118:3,20
125:9	1 15:11 55:19	2003 7:3 10:17	28 87:5	119:23 120:4,5
Wrigley 59:13	63:8 116:19	2004 39:4,23	280 55:10,11	120:12 123:8
written 81:24	10 48:1,6 52:24	2005 54:10	61:24	123:10,12,19
82:3 117:19	110:24 116:11	55:10 56:21	281 60:12,13	511 38:16
wrong 73:13	116:20,23	2006 101:17,20	282 60:16,17	55,00 30:5
82:5	117:4,11 119:8	101:22	283 61:11,12,22	
	119:16	2007 39:4 45:7	284 63:3,4	6
Y	10,000 29:23	47:1 48:1	285 83:9,11,16	6 1:15 96:17
Yahoo 80:13	10,000 29.23 10/2003 8:10	2008 26:18	29 87:6 88:2,8	106:8,13
YATES 23:13	100 80:12,14	39:24 41:12	97:12	114:12,13,14
yeah 62:3	127:5,19	42:1,14 43:1,3		116:12 125:1
year 21:22 24:23	11 24:15 30:10	52:12	3	60 30:17 58:16
28:10 29:15	31:11 55:21	2009 1:16 49:7	3 24:14 55:19	60601 2:16
30:2,16 32:21	116:9 123:5	83:12	57:2 58:2,4	60606-2833 3:4
38:13,17,17,23	12 38:21 43:16	2015 112:21	67:14 90:8,22	7
59:12 80:20	49:20 52:12	24 20:13 32:8	96:4 100:4	739:241:12
112:7	121:1	240 24:22	111:8	43:1 110:21
years 12:14,18	121:1 120 38:17,23	25 83:12	30 125:19 127:4	116:12
20:16 21:16	13 52:12 123:24	259 5:23 6:5	127:9,11	70 50:18 54:10
24:15 28:7	13 34.14 143.44	260 8:6,7	300 71:19	/0 30.10 34.10
			1	l

			2030 207
58:13 125:17 125:21,22 126:19			
70s 54:8 70-something			
14:22 75 40:4			
76 47:19 77 48:4			
795-3707 2:17		·	
8			
8 40:11 42:14 111:6 113:12			
116:12 80 30:17			
80's 53:20 85 53:18			
9			
9 84:24 116:11 9:00 1:16			
9810 115:21			
			·
	1		