

MANITOBA CLEAN ENVIRONMENT COMMISSION

LAKE WINNIPEG REGULATION REVIEW

UNDER THE WATER POWER ACT

VOLUME 15

* * * * *

Transcript of Proceedings
Held at RBC Convention Centre
Winnipeg, Manitoba
MONDAY, APRIL 13, 2015

* * * * *

APPEARANCES

CLEAN ENVIRONMENT COMMISSION

Terry Sargeant - Chairman
Edwin Yee - Commissioner
Neil Harden - Commissioner
Beverly Suek - Commissioner
Mike Green - Counsel to Commission
Cathy Johnson - Commission Secretary
Joyce Mueller - Administrative Assistant
Amy Kagaoan - Administrative Assistant
Phil Shantz - Advisor
Bob Armstrong - Report writer

MANITOBA CONSERVATION AND WATER STEWARDSHIP

Rob Matthews
Puru Singh

MANITOBA HYDRO

Doug Bedford - Counsel
Janet Mayor - Counsel
Sasha Paul - Counsel

CONSUMERS ASSOCIATION OF CANADA (Manitoba chapter)

Byron Williams - Counsel
Joelle Pastora Sala - Counsel

MANITOBA METIS FEDERATION

Marci Riel
Jasmine Langhan

MANITOBA WILDLANDS

Gaile Whelan Enns

PEGUIS FIRST NATION

Lloyd Stevenson
Jared Whelan

PIMICIKAMAK OKIMAWIN

Annette Luttermann
Jeremiah Raining Bird

APPEARANCES

KEWATINOOK FISHERS

Meryl Ballard

NORWAY HOUSE FISHERMAN'S CO-OP

Keith Lenton

TATASKWEYAK CREE NATION

Sean Keating

INTERLAKE RESERVES TRIBAL COUNCIL

Corey Shefman

INDEX OF PROCEEDINGS

Presentation by Sagkeeng First Nation Chief Derrick Henderson Lyle Morrisseau Joe Daniels Elder Sara Swampy	2221
Cross-examination by Mr. Bedford	2253
Cross-examination by Ms. Pastora Sala	2263
Questions by CEC Panel	2264
Presentation by Peguis First Nation Petr Cizek	2271
Cross-examination by Mr. Paul (for Hydro)	2293
Questions by CEC Panel	2312
Questions by Mr. Whelan	2317

INDEX OF EXHIBITS

SAG 1	Sagkeeng's pre-filing, February 24th	2319
SAG 2	Map packages	2319
PFN 5	Dr. Cizek's paper on shoreline change	2319
PFN 6	Dr. Cizek's paper on Fisher River area	2319
PFN 7	Dr. Cizek's presentation on north end of Lake Winnipeg	2319
PFN 8	Dr. Cizek's presentation on Fisher River area	2319
MH 11	Undertaking 1 provided by Manitoba Hydro	2319

1 MONDAY, APRIL 13, 2015

2 UPON COMMENCING AT 9:30 A.M.

3 THE CHAIRMAN: Good morning. Welcome
4 back to what we expect to be the final week of
5 hearings in Winnipeg. The panel still has one
6 more trip north next week. Today we have Sagkeeng
7 First Nation making their presentation, and then
8 this afternoon, Peguis First Nation will make a
9 presentation. I understand that Sagkeeng would
10 like to open with an opening prayer. Is that
11 correct? So we'll do that now.

12 CHIEF HENDERSON: Yes, good morning.
13 I have asked Elder Sara Swampy to open this
14 morning.

15 THE CHAIRMAN: Thank you.

16 ELDER SWAMPY: (Opening prayer)

17 THE CHAIRMAN: Thank you, Elder
18 Swampy.

19 Under our process guidelines, we
20 require anybody who will be giving evidence to be
21 sworn in, so I'll ask the commission secretary to
22 do that right now.

23 MS. JOHNSON: Those of you who are
24 giving evidence, please state your names for the
25 record.

1 CHIEF HENDERSON: Chief Derrick
2 Henderson.

3 MR. MORRISSEAU: Lyle Morrissette.

4 MR. DANIELS: Joseph Daniels,
5 councillor.

6 ELDER SWAMPY: Sara Swampy.

7 Derrick Henderson: Sworn

8 Lyle Morrissette: Sworn

9 Joseph Daniels: Sworn

10 Sara Swampy: Sworn

11 THE CHAIRMAN: Mr. Bedford?

12 MR. BEDFORD: One of the papers that
13 had been handed out this morning has apparently
14 been written by a Mr. Rick Lemoine. We received
15 this about three days ago on a Friday evening.
16 Mr. Lemoine is quite obviously not amongst the
17 witnesses who are testifying. The paper,
18 apparently, is an expert opinion from Mr. Lemoine.
19 We object to this document being entered as an
20 exhibit in these proceedings, firstly, because
21 Mr. Lemoine is not being presented for purposes of
22 cross-examination; and secondly, we received this
23 outside, or inside more logically, the seven day
24 period.

25 THE CHAIRMAN: Thank you, Mr. Bedford.

1 Chief?

2 CHIEF HENDERSON: Chair, this
3 information was just for the use of Sagkeeng. We
4 weren't going to use it as evidence today, but we
5 were being asked to swear and to say what we need
6 to say in regards to the regulations. So I'm not
7 sure what the legal adviser Bedford is questioning
8 why Mr. Lemoine is not here?

9 THE CHAIRMAN: Well, if you're going
10 to rely on the evidence in this paper, as
11 presented or written by Mr. Lemoine, under our
12 process guidelines there's two factors, both of
13 which Mr. Bedford identified. If this is being
14 submitted as evidence, then Mr. Lemoine needs to
15 be here to respond to questions. But also it had
16 to be filed seven days before today, so it had to
17 be filed by last Monday.

18 CHIEF HENDERSON: Okay.

19 THE CHAIRMAN: Now if, as you just
20 said, this is for your information, then it
21 doesn't seem to be an issue, but this paper will
22 not become part of the record.

23 CHIEF HENDERSON: That is correct.

24 THE CHAIRMAN: Okay. Then I don't
25 think there is an issue.

1 CHIEF HENDERSON: I'm not using it as
2 evidence, I just wanted to have all the
3 documentation that pertain to Sagkeeng with
4 regards to Lake Winnipeg and the Winnipeg River.

5 THE CHAIRMAN: Mr. Bedford?

6 MR. BEDFORD: Well, if it's not going
7 in as an exhibit, my request is that it not be, so
8 that's reassuring.

9 THE CHAIRMAN: Thank you. Peguis, you
10 may proceed.

11 CHIEF HENDERSON: Sagkeeng.

12 THE CHAIRMAN: I'm getting ahead of
13 myself. That's this afternoon.

14 Chief Henderson, you can lead off the
15 presentation on behalf of your community.

16 CHIEF HENDERSON: First of all, thank
17 you very much, Chair, for allowing me to present.
18 I know that you came to our community back in
19 February. I'd like to start out a little
20 differently.

21 First of all, I'll introduce my
22 panelists that are here. I am Chief Henderson
23 elected about a week and a half ago as the Chief
24 of Sagkeeng. So I'm new at this game. I was the
25 Acting Chief, now I'm the real deal they tell me.

1 So I am the new chief of Sagkeeng. I welcome
2 everybody here and hope to work with everybody
3 that's in front of us here today.

4 To my right is Councillor Joe Daniels,
5 re-elected; to my left is Lyle Morrissette, former
6 councillor who didn't run in this election,
7 looking after his family; and also Elder Swampy.

8 I'd like to start out here this
9 morning, I'd like to have the elder speak so she
10 can get us into what we're going to be talking
11 about this morning. If that's okay, Chair, I'd
12 like to have the elder speak first and then I will
13 come and do my presentation. Thank you.

14 THE CHAIRMAN: That is absolutely
15 fine.

16 ELDER SWAMPY: Good morning. I'd like
17 to share a little bit about Sagkeeng. I was born
18 and raised in Sagkeeng for 66 years. I raised my
19 children. I have 29 grandchildren and 15 great.
20 My deceased husband was a commercial fisherman.
21 That's how we made our living, that's how we
22 survived. But I have noticed a lot of changes in
23 our community, the water, the water is really bad,
24 and the erosion. And then I see a lot of things
25 going on that, you know, we can't, the kids can't

1 swim in that water anymore. And they go in the
2 water, they get sores. But in the past, the water
3 was different. My kids used to go and swim. It
4 was safe. But now there's so much erosion in our
5 community, lots of land, we lost lots of land.
6 And it's hard, it's hard. It's not safe to drink
7 that water. We have to buy water to drink.

8 And I'm a widow, I try my best. As
9 being an elder, I have seen a lot of things in my
10 community. I support Chief and Council. And I'm
11 here today because I'm concerned, I'm a concerned
12 grandmother, I'm a concerned mother. Like as a
13 woman, we as women were given that gift to be
14 water carriers. And when we carry a child, a
15 child lives in our womb. When the water breaks,
16 that's when that life comes. Without water, I
17 don't think we'd have life. So I hope I can help
18 a little bit in what I say. Miigwech.

19 CHIEF HENDERSON: Thank you very much,
20 Elder Swampy, for that.

21 First of all, I want to thank the
22 panel for hearing out Sagkeeng's concerns again.
23 Thank you for coming out to our community back in
24 February. Also the hearing participants here this
25 morning, thank you for listening to what we have

1 to present. I think that the concerns we have
2 here this morning are not only about Sagkeeng, but
3 about all other communities that surround the lake
4 and also other First Nation communities. I want
5 to recognize that our Treaty One territory, which
6 Sagkeeng is part of Treaty One territory, extends
7 into Winnipeg and we want to welcome you to that
8 territory.

9 There are many things that affect
10 people. In our community of about 75 and 85, that
11 is the population of Sagkeeng, we have a lot of
12 things that impact our communities, whether it's
13 water, whether it's forestry or mining. And these
14 things need to be spelled out and other people
15 need to understand the position of our community.

16 Interestingly enough, when I spoke in
17 our community, this is the first time I heard of
18 Lake Winnipeg Regulation. I heard about it
19 through the media, I heard about it through other
20 means. It took 40 years for somebody to come and
21 say, we need to start listening, or presenting
22 something to our community that's being affected.
23 And Sagkeeng is affected in that. So it's taken
24 40 years, I guess that's better than nothing, you
25 know, that we're being listened to now. So I want

1 to present a few of our concerns that we have as a
2 community.

3 It would be difficult for me as a
4 leader to say here today, I'd like you to have
5 that licence tomorrow. I think it's important to
6 understand that First Nations don't accept the
7 idea of saying today, after the hearings, after
8 we're all being heard out, that we should issue a
9 final licence. We have the same issues as other
10 communities that deal with things that deal with
11 Manitoba Hydro, the water. That's a big issue in
12 that community. Because we're right at the mouth
13 of that lake. Sagkeeng is at the bottom of that
14 lake. It has huge impacts to our community. As
15 you heard the elder speak this morning, it's
16 impacted our kids. Our kids can't even utilize
17 the water, can't even drink the water, can't even
18 swim in it anymore. It's created quite a few
19 issues in our community.

20 You talk about the lake, you've got to
21 talk about the whole lake. You can't talk about
22 the north and the south. I think Lake Winnipeg is
23 Lake Winnipeg, and it hits the Winnipeg River
24 where Sagkeeng is. So whatever is recommended for
25 the regulations, you have to look at the whole

1 lake as a whole lake, not just bits and pieces.
2 The north impacts the north, the south impacts the
3 south. That lake impacts everything that it
4 touches, right. So I'm hoping that when we make
5 the recommendations, that's considered because it
6 is a huge factor, you know, for our community
7 again.

8 When you talk about the impacts of
9 water being regulated, come to Sagkeeng one day
10 when you have a bit of a wind coming from the
11 north. Come and sit by the number 11 highway
12 where our school sits. I don't know how somebody
13 can sit here and try to say or convince me that
14 there's no effects or no impacts when water is
15 regulated.

16 I have to protect a \$15 million school
17 that sits along that lake, that river. So it's
18 important, you know, when somebody says that, you
19 know, there's really no effects or no impacts of
20 what happens when the water is regulated. There's
21 huge impacts in our community.

22 We talk about studies or technical
23 information that's provided to our communities
24 about what's happening in our community, again, in
25 regards to the regulations. You know, mapping,

1 all this information that we require, you know, I
2 want to refer to a map later on in my
3 presentation. I think it's important if we're
4 going to provide all this information, give it to
5 the communities to take a look at.

6 There's been statements made that the
7 regulation of the Lake Winnipeg reduces flooding.
8 That's a difficult thing for me to really
9 understand what they are trying to say there. The
10 only impacts of the regulating of the lake is the
11 north of the Jenpeg dam. I don't understand that.
12 I don't understand. Because when you are
13 regulating water, I don't think that the north,
14 they are just going to be damning off the north
15 and it doesn't impact the south where we sit.

16 Lake Winnipeg flows into the Winnipeg
17 River where Sagkeeng sits. I've got community
18 members knocking on my door everyday. What are we
19 doing, the land is falling into the river, what
20 are you going to do to protect my house?

21 I want to refer to a map that shows
22 how much land has been taken away from our
23 community. If you look at the blue line, right
24 there, that's where the shoreline was. Look at
25 where it is today, it's along the highway. And

1 the tip of the mouth of the river where the
2 pointer is right now, look at where it is today.

3 So the loss of the land and the use of
4 the land is huge, look at how much has been taken
5 away.

6 When we talk about bank collapses, we
7 have houses along the river that almost run into
8 the river now. You know, is it water flow, is it
9 erosion? I think it's a few other things, but I
10 think it's more than just one thing that's
11 impacting the Winnipeg River.

12 Our people live off the land, our
13 traditional people live off the land. They fish,
14 they hunt, they trap. These are also impacted by
15 what happens in the water. Especially with our
16 fishers, that's got a huge impact. We don't know
17 what's coming in from the lake, coming into the
18 river. We're losing nets, we're losing whatever.
19 So it creates, it doesn't help the economy of our
20 community members, it doesn't help the opportunity
21 of the land to thrive as members of society if
22 they can't live off what they are supposed to live
23 off. Especially the traditional people that hunt
24 and trap and fish.

25 The other thing that I have a question

1 on in regard to the lake is that, why is it one of
2 the lakes that's not -- that's least studied? Is
3 it because it's a reservoir? We don't know. But
4 that's something that I have a question that needs
5 to be answered. We will need to take a look at
6 what some of the studies should be? We talk about
7 the fishermen, the communities, the economy around
8 the lake, the environmental impacts. How does
9 that impact our traditional people? Because they
10 are the ones that have the -- they are the ones
11 that are impacted.

12 We talk about the Lake Winnipeg
13 management, or I don't know what is going to be,
14 what the outcome is of the hearings, but I think
15 if we're going to be recommending something like a
16 management board or a hearing or a commission to
17 deal with Lake Winnipeg, I think it's important
18 for the Commission to involve First Nations people
19 on that board, management board, commission,
20 whatever it is. Because there is a lot of First
21 Nations that are impacted by this, and I think
22 it's important that we're at least at the table,
23 at least we're being heard, we can bring the
24 concerns that First Nations have that impact our
25 community. Whatever model that you develop, I

1 think it's important that we're involved some way
2 along the decision-making with that.

3 I'm not sure if there's Crown
4 consultations with regards to the Lake Winnipeg
5 Regulations. I think that needs to happen with
6 the First Nation communities. We have a duty to
7 consult under section 35 with First Nations. I'm
8 not sure if that's happened yet, but it would be
9 something that we would, as a government here in
10 Sagkeeng, definitely put to the table and say,
11 look, we need to be consulted on that.

12 I don't think given the renewal today
13 or tomorrow for 2026 would help our First Nation
14 communities, because it's after the fact again, as
15 I mentioned earlier. It took 40 years for us to
16 sit at this table, and to give a licence to 2026,
17 and then start looking at some recommendations, we
18 need to start the recommendations from today and
19 move forward.

20 Is there a public policy for Lake
21 Winnipeg Regulation? Is there something there
22 that is followed? Because I think everything is
23 piecemeal right, go to one community, go to one
24 area, go to the cottagers, go to First Nations, go
25 to this and that. Is there a public policy

1 framework for regulating the lake? I think that's
2 something that's important to address.

3 I'm going to turn the mic over to
4 Councillor Daniels to speak on some of the topics
5 and I may want to interject and add onto what he
6 has to say. Thank you.

7 MR. DANIELS: Bonjour. (Native
8 language spoken). I don't know if any of you
9 understand what I'm talking about here, and I had
10 mentioned that last hearing that you came to
11 Sagkeeng that we should have had somebody here
12 interpreting in our language, considering this is
13 first, I shouldn't say First Nation, Anishinaabe
14 land. We were put here first. And the Creator
15 gave us the opportunity, the responsibility to
16 look after this country. (Native language spoken)
17 it's called, Turtle Island. But it seems like
18 when we made treaties with the Europeans, I'll
19 say, all of a sudden things changed. Who gave
20 these Europeans the authority to come and take
21 everything from our people, the things that the
22 Creator gave to our people to survive and to live
23 and to have a good life. This is what happens
24 here.

25 You know right now, you know, when you

1 see society, I'll say, you know, we're just like,
2 we're not -- we don't mean as much to society as
3 other peoples. Anybody that comes to Canada or
4 North America, right away they have belittling
5 view of Anishinaabe people, of the first people
6 that were here in North America. I know that
7 because I have experienced it, even to this day.
8 You know, like I mentioned about all the First
9 Nations people, First Nations women that are lost.
10 It's like it doesn't mean anything. And the elder
11 talked about, these are the most sacred people,
12 they are the ones that carry that life with that
13 water. That's another thing that's so important
14 for us. If we didn't have water, we wouldn't
15 survive. You know that, you have seen how deserts
16 and places like that with no water.

17 It doesn't make sense to me that
18 corporations can do whatever they want. You know,
19 they don't share whatever it is that they get from
20 the resources. I don't know what they do, but
21 they sure in the hell don't share it with other
22 people. You know, that was one of the things
23 that, like I said, you are sitting here today
24 because our people agreed to share with you. And
25 for me, I don't see that. I bet you any one of

1 yous, when you are around downtown here, you
2 always see Anishinaabe people roaming the streets,
3 a lot of them are homeless. Why do you think
4 these people are in that state? You should ask
5 yourself that question. Find out. Maybe even
6 talk to that person, why they are like that. Is
7 it because they are so well off that that's the
8 way they want to live? I don't think so. You
9 know, it's very frustrating for me, because as an
10 Anishinaabe person, that's what you feel. You
11 feel that from your people all the time. I should
12 say our people, I'm one of them.

13 But as far as licensing of this lake,
14 you know, Derrick mentioned that the past 40
15 years, finally you're coming to talk to people.
16 This thing has happened right since the start.
17 They started having all kinds of things going on
18 around the lake. And particularly in our area, I
19 mentioned that we had been impacted since 1880s,
20 when they start controlling water from east in
21 Ontario there, I forget, the Lac Seul area there.
22 That's one of the areas that has been impacting
23 our area. And then, again, in all these dams on
24 the Winnipeg River, the ones, the control
25 structures up north, these things all impact in

1 our community.

2 What's really frustrating, and I don't
3 know, I shouldn't say frustrating, but when I seen
4 Premier Selinger going up north to apologize to
5 those people in Cross Lake, or I forget what --
6 you know what I'm talking about, this happened
7 recently. He went and apologized over there for
8 all the impacts that Hydro has done to their
9 community. And this was last year. Where was he
10 for Sagkeeng when, like I said, we have been
11 impacted since 1880s. All these things that
12 happened in Cross Lake, these things that happened
13 in Sagkeeng a hell of a lot earlier. And here
14 Hydro is still trying to defend itself that they
15 should be given that licence to have practically
16 free reign. I don't think so. They have to
17 compensate these people that they have impacted,
18 that's including Sagkeeng, especially Sagkeeng in
19 my way of thinking. I know we have a lot of
20 scientific research that says no, but there's a
21 lot of Anishinaabe that tell you yeah.

22 I remember my older brothers, cousins,
23 neighbours, they used to go out camping to where
24 is the beach areas there -- I forget what that
25 island is called there, Sara -- they used to go

1 camping there, picking berries and things that had
2 medicines, hunting. Now they never do that. They
3 used to do that every summer, they'd camp out for
4 a month or so. Things like that are forever gone,
5 I guess, unless some of these things are
6 remediated.

7 But for me, I don't think hydro should
8 be given a free reign, they should spread the
9 benefits, and particularly to First Nations, the
10 ones that have been most impacted.

11 Every year we have people coming to us
12 saying how high their hydro bills are. I always
13 equate that with, we are still being used as a
14 colony. Everything that's -- the money that's
15 made in our traditional territories goes
16 elsewhere. Very little of it is left for
17 community members. Even through jobs, we get jobs
18 for a few months maybe when something needs to be
19 built. And after that, who takes over? Surely
20 not the Anishinaabe people.

21 These hydro lines that are being made
22 across the country, that's another place where
23 they have a few people getting jobs. And it's not
24 long-term. Brushing lines and things like that,
25 maybe building the lines, who else comes in there

1 after?

2 I'm going to give you a personal
3 experience. I don't know if I mentioned this at
4 the last hearing held in Sagkeeng. In October, I
5 was going to a meeting in Ontario for Treaty 3. I
6 stopped by Drifters Restaurant in Lac du Bonnet, I
7 was going to have breakfast there in the morning,
8 coffee. I sat down. And there was about five
9 employees of Hydro. I guess they didn't see me
10 there. They were paying for their -- they were
11 paying for their meals, and the lady that was at
12 the till there, and they were talking to her about
13 how -- this is when they were doing that protest
14 up north in Cross Lake, I'm pretty sure that was
15 Cross Lake. You guys probably know what that
16 community's name was. But they were calling these
17 people terrorists, they want freebies, they want
18 everything for free they were saying. And you
19 should put a sign here, they were telling that
20 lady, no non-taxpayers allowed, meaning our
21 people, of course, which we know is complete crap.
22 Through our treaties, we paid for more tax than
23 anybody else around here.

24 And then here we are, we have Hydro
25 having notices for training of Aboriginal people,

1 you know, to do lines and whatever else kind of
2 training that they might offer. How in the hell
3 do you expect our people to go and sit there, take
4 training, when you have people like that you are
5 going to work with, having these racist views?

6 If you were to come into my community
7 as an Anishinaabe person, a minority in our
8 community, non-Aboriginal, and you were subject to
9 such conditions, would you feel comfortable being
10 there? Would you stay there and do your job
11 properly, knowing that there are people all around
12 you that think that you are a terrorist, a free
13 loader, a non-taxpayer, even though when you work
14 some place, everywhere, you pay income tax on top
15 of what we gave up on our Treaties.

16 We already heard, you guys have
17 probably heard how many impacts that you have had
18 on our traditional lifestyle so I don't get into
19 that. But right now these are the things that are
20 right up to date, what I talk about, all these
21 things that have impacted on our people by being
22 dispossessed of our resources. And this is
23 what's -- that's what's happening right now, and
24 it's even further going to happen if Manitoba
25 Hydro gets that licence without having to, you

1 know, share the wealth I might as well say.

2 Maybe if they were to be more
3 forthcoming with that, it would be better
4 received. We heard that when we first made
5 Treaties that we were going to share. And that's
6 why I use my language, my first language whenever
7 I speak anywhere. As I want you to know how it
8 was for our people when they negotiated Treaties.

9 Did you guys understand what I was
10 talking about? Somebody raise their hand. I
11 don't see anybody raising their hand here, so I'm
12 assuming you didn't understand what I'm saying.
13 And that's the way it was for our people, when you
14 came here with your lawyers and whatever else that
15 you use to negotiate our treaties, your treaties.
16 These things are agreements that was supposed to
17 be two way, but as you can see, it hasn't
18 materialized that way.

19 So I don't know what more I can say.
20 I could read all these papers here and repeat some
21 of the stuff here, but I'm expressing myself as
22 Anishinaabe person, like the way we are, oral
23 traditionally, I speak from experience. Most
24 Anishinaabe people, that's what they talk about is
25 their experience, and that question about how, are

1 you going to tell the truth? For me, it's
2 insulting. And to have somebody say, oh, we can't
3 allow this, is that being truthful?

4 When I get up in the morning, I say
5 Miigwech to my Maker, that's the truth. And
6 that's who I have to be answerable to. That's who
7 I have to be truthful to. So here that's why I
8 say, that's insulting for somebody to ask you if
9 you're going to be truthful, especially when
10 you're speaking for great grandchildren and
11 grandchildren. That's who we speak about. That's
12 what our elder talked about, and me too. I have
13 grandchildren. I'm going to have a great
14 grandchild. And that's why I'm here. Very
15 passionate about what I say. So I hope that you
16 guys think about the things that I've talked
17 about, especially how our people are treated
18 through colonialism, which still happens today.

19 So with that I'll say miigwech for
20 saying my piece here. There was an elder one time
21 that told me, when you get a chance, say it, speak
22 up, and that's what I always do. I don't want to
23 insult anybody, but that's -- my responsibility is
24 to speak up for why I was put in here, and like I
25 said for my grandchildren, my great grandchildren.

1 I speak for you too, because you guys are the same
2 in the same boat I am, but you're just a little
3 bit more better off than we are. So miigwech.

4 CHIEF HENDERSON: Thank you,
5 Councillor Daniels.

6 I am going to respond to what he is
7 saying also, I think it is important that we
8 mention about the interpreters for First Nations,
9 I think that if we can have that. I think that
10 was one of the recommendations in Sagkeeng.

11 I rely on Mr. Daniels. He is a day
12 older than I am, he is an elder in our council, so
13 I respect his knowledge. And I do speak the
14 language and I do understand the language very
15 fluently. So when he speaks, he speaks out of
16 passion too, and it is exactly what it is. It's
17 about our grandchildren. I have grandchildren,
18 and that's why we sit here, that's why we are
19 elected officials in our communities, to protect
20 the interests of our community, and especially the
21 children, because they are the ones that are going
22 to be the future of our community.

23 And when we talk about the whole issue
24 of Manitoba Hydro and all the stakes that they
25 have in regards to their transmission lines in

1 Minnesota, Pointe du Bois, east side, these are
2 why we have difficulty getting agreements because
3 there are things that First Nations need to be
4 listened to in regard to those agreements, right.
5 That's the biggest thing here. If we're not
6 getting a fair share, that's why things don't move
7 forward. I just wanted to share that, because I
8 know Mr. Daniels is on the same page as me. We
9 have issues in our community right now that we
10 have to deal with those entities, and it's
11 important.

12 I want to hand it over to Lyle
13 Morrissette, former councillor. He was at the
14 hearing in February, so I'd like him to speak
15 also, too.

16 MR. MORRISSEAU: Good morning. I just
17 want to say that, begin to start off with a quote
18 I used many years ago at the UN Declaration of
19 Indigenous People, and I think it applies here as
20 well. And it's:

21 "Never in our history have we seen so
22 few people destroy so much in such a
23 short period of time."

24 And that has to do with the way that Manitoba
25 Hydro has conducted themselves in terms of the

1 management of the water upon the lake. And also
2 the effects that it's had on rivers and the
3 incoming channels of the area.

4 I want to start with map number 3,
5 Jared. And I just want to begin by saying this is
6 a map that's an aerial view from 1948, on the top,
7 and the current of 2010. When I was a council
8 member two years ago, we spent, we managed to get
9 \$1.2 million to remove 10 houses from that
10 shoreline at an enormous cost that came out of
11 somebody's budget. And primarily the Department
12 of Indian Affairs had allocated that money that
13 could have been used towards education, could have
14 been used towards health, but instead they had to
15 remove the houses. And that's an enormous cost.
16 And you can see on the shoreline and the erosion
17 that's having its affects. There's about 33
18 houses that are currently in the same state as it
19 was in 2010, that need to be removed from that
20 area, or to fix the shoreline. So at the enormous
21 cost, their policy and strategy has always been to
22 remove the housing from -- relocate the houses
23 rather than fix the shoreline. And that has an
24 enormous cost in the future.

25 I want to start with, also to map

1 number 4, Jared. The top one is 1926 mapping, and
2 like I said, the 2010 current map of Sagkeeng.
3 And you can see the shoreline and the manic loss
4 of land, wildlife and so on. And Elder Swampy
5 spoke about how it's unsafe for children to swim
6 and to have recreational activities near the
7 shoreline, because the shorelines are so unsafe
8 because of the cliffs that have resulted in the
9 erosion of that land. And for us, as parents, we
10 worry about our children playing down at the
11 shoreline because, like I said, it's not safe and
12 the ground does give away. Kids playing close by,
13 and it's become a hazard, as opposed to any type
14 of shoreline that used to exist from our parents'
15 day.

16 And I want to start again with map
17 number 7, Jared.

18 We talk a little bit about the water
19 gauges set up by the Federal Government to monitor
20 the incoming water levels and the notification to
21 communities around the lake. As you can see on
22 the west side, where the gauges are located, the
23 gauges are located at the blue dots. The west
24 side basically has no gauges. And to the south,
25 it's been moved around quite a few times from

1 Traverse Bay and Victoria Beach, not giving a
2 proper indication of the water levels and the
3 water flow in the area. I would like to make some
4 recommendations on those ones as well, but you can
5 see the gauges are not as accurate as they could
6 be throughout the whole lake in terms of the
7 communities that are representative in the area.

8 I want to start by going back to our
9 recommendations, because I think a lot has been
10 said today from the community and the community
11 leaders here today about the way they see things.
12 I want to talk about the recommendation for
13 governance and management, and to set up an
14 independent First Nations commission that will
15 work jointly in hand with the commission and the
16 task force to develop climate governance and
17 management of the lake. This will be made up of
18 communities from all around the lake who are
19 directly impacted by the water levels of the lake.

20 That the water gauges themselves be
21 increased for the notification to communities for
22 the water, and also to develop disaster plans for
23 water levels that are coming into the areas. The
24 disaster plans include the relocation of
25 individuals for temporary basis and to provide

1 food and shelter should they be removed from that
2 area based on the water levels.

3 The delay of regulation has been
4 unacceptable for First Nations for the last 40
5 years. Manitoba Hydro's inability to come forward
6 of the regulation licensing process needs to be
7 looked at. To comply with the licence in 1926
8 without any recommendations is totally
9 unacceptable. And I think Manitoba Hydro is
10 willing, and I think they should be willing to
11 listen to a lot of the recommendations given not
12 only from the First Nations, but all the people
13 who share in the resources of the lake itself.

14 I know Chief Henderson has a few
15 comments to make, and I wanted to be brief because
16 a lot of the words have been said in terms of what
17 has been said earlier, there's no need to
18 reiterate. I think the panel gets it. I think
19 the panel understands a lot of the issues that not
20 only face First Nations, but also the lake and the
21 dependency upon changing the regime that is now
22 existing from Manitoba Hydro to have a carte
23 blanche use of that lake and the river. So I
24 think there has to be a complete change in terms
25 of what we, as people, have to contribute in terms

1 of what we see on a daily basis and what we have
2 seen through generations on that lake, and the
3 effects. It affects not only our economy, our
4 social life, but also our spiritual existence.
5 When you don't have that connection to that water
6 base as you had in the past, it changes a people.
7 I can see the displacement, I can see the loss of
8 people that are forced to move from their own
9 homes to Winnipeg to find homes here in this area.
10 So we're basically refugees in our own territory as
11 a result of mismanagement of a water body that
12 needs to be looked at.

13 So I want to begin by just thanking
14 the panel and the commission for listening to what
15 we had to say, but more importantly to move
16 forward on those recommendations. Thank you.

17 CHIEF HENDERSON: Thank you, Lyle. I
18 guess I get the last word on our presentation. So
19 what I would like to do, Chair, if possible, I'd
20 like to make some recommendations to the panel.
21 And I have scribbled all over the nice ones, so
22 you're going to have to just bear and just take
23 fast notes.

24 THE CHAIRMAN: We'll get a transcript.

25 CHIEF HENDERSON: Okay. I think for

1 our community, before the licence is issued, I
2 think we need to consult with Sagkeeng First
3 Nation. That's something that we're looking at as
4 a community.

5 I know that Mr. Morrisseau had
6 mentioned there is a water gauge in Victoria
7 Beach. If there's any way that we can get water
8 gauges to inform our Community of Sagkeeng, closer
9 to our community, because we are the ones that are
10 impacted by that lake along the Winnipeg River, to
11 show water flow speeds, and whatever it takes to
12 protect our community, we'd like to make a
13 recommendation for that.

14 And whoever is responsible for the
15 notification on the water levels, if it's Manitoba
16 Hydro or the province, we'd like to have that
17 notification somehow. We have a website,
18 sagkeeng.ca, you can send us an e-mail, and then
19 we'll be notified that water is going to be up
20 this week or this month, so we can notify people.

21 I'm not sure on how the board setup is
22 going to be or what the management of the board.
23 If you're going to have Lake Winnipeg Regulation
24 board, or a First Nation board, or a commission,
25 or whatever you want to call it, there needs to be

1 some resourcing, and funded and written into a
2 licence as an entity which Manitoba Hydro or the
3 Crown would seek advice from, when they review
4 programs, regulations and management of the lake.
5 And you know, it would be good to have a First
6 Nation representative on that board.

7 Manitoba Hydro and the Clean
8 Environment Commission communicate to the Crown
9 about the land Sagkeeng has lost to the lake. How
10 are you going to replace those lands?

11 Technical studies be conducted to
12 determine how much land Sagkeeng has lost since
13 1870, since the first dam on the lake, on the
14 river, since 1970s and the regulation of lake
15 levels. Studies to include extensive traditional
16 knowledge with full involvement of Sagkeeng. So
17 in order for these things to happen, there has to
18 be resourcing and you're going to have to engage
19 Sagkeeng First Nation members, because you're not
20 going to know what's happened in Sagkeeng since
21 this has occurred.

22 Some type of early warning system for
23 Lake Winnipeg so that communities are aware of
24 weather risks, wind risks, sudden temperature
25 changes, whatever it takes to notify our

1 communities.

2 Technical and traditional knowledge
3 studies are needed regarding the changes in ice
4 thickness, the strength in the ice due to climate
5 change, to monitor over time the different, the
6 climate change, water temperature, ice, weather
7 events that occur in the Sagkeeng territory.

8 Traditional studies of Sagkeeng First
9 Nation, use of Lake Winnipeg shoreline over time,
10 and the effects of loss of shorelines and lake
11 banks, and the non-ability to exercise Aboriginal
12 Treaty rights to gather, hunt, fish and trap.

13 We need to do archeological studies
14 along the river. We have had loss of burial sites
15 of our ancestors and significant ceremonial sites,
16 as Joe Daniels had mentioned earlier on about the
17 one island where they used to go hunting and
18 trapping and just stay there for months. And
19 again, this is going to require resourcing to be
20 able to do these studies, and engaging first
21 Sagkeeng members to do the studies, it will help
22 you have more meaning to the study.

23 And documentation of Sagkeeng First
24 Nation that is lost to the fishery, to put an
25 evaluation of their economic losses from Sagkeeng.

1 Just in closing, I want to say that
2 there is so much impacts that have happened to our
3 community, and our panel has shared them. It all
4 comes from the heart, it all comes from what we
5 see. We have grown up in that community. I'm not
6 sure if anybody, if everybody here has gone to
7 Sagkeeng, but we have a beautiful community. We
8 want to protect that for our people. We don't
9 have much in Sagkeeng, we're on both sides of the
10 Winnipeg River. The more land that we lose, the
11 less our community becomes. Our community is
12 getting smaller, and smaller, and smaller, as you
13 can see by the mapping. So it's important for us
14 to protect our community, to protect the interests
15 of the people. That's their livelihood, the
16 Winnipeg River. The lake is part of their
17 livelihood also. It used to be their livelihood.
18 So a lot of our fishers don't even fish anymore.

19 So it's important in regards to the
20 whole trapping and hunting and our traditional way
21 of life, because it's being taken away from our
22 people.

23 And then we talk about impacts and
24 how, we talk about resource sharing, we talk about
25 all of these things. And when you see First

1 Nation people in the media, you know, then you get
2 the negative comments made in the paper about, now
3 what do they want? Why are they doing this?
4 People don't understand, when we made the Treaty,
5 there was an agreement, an agreement that has to
6 be fulfilled by both parties.

7 I want to thank you panel, chair, for
8 listening to what we had this morning. Miigwech
9 and thank you very much.

10 THE CHAIRMAN: Thank you, Chief
11 Henderson. Thank you to Councillor Daniels and
12 Mr. Morrisseau and Elder Swampy. Before we turn
13 to any questioning, we'll take a short break. So
14 we'll come back in 15 minutes.

15 (Proceedings recessed at 10:28 a.m.
16 and reconvened at 10:42 a.m.)

17 THE CHAIRMAN: I'd just like to
18 address a couple of points brought up by Chief
19 Henderson, as well as by Councillor Daniels.

20 Chief Henderson, you asked why there
21 had been so few studies on Lake Winnipeg, and I
22 can't answer that. But I can tell you that we
23 find it as frustrating as everyone else. On this
24 one and other reviews that the Commission has
25 conducted, a more extensive body of knowledge

1 about the lake would certainly be helpful.

2 You also asked about the section 35
3 hearings. My understanding is that there are
4 section 35 hearings going on for this review. I
5 understand that your community was not on the
6 list, but I would suggest that somebody from your
7 office contact Manitoba Northern and Aboriginal
8 Affairs and inquire about whether or not you will
9 be included in it and, obviously, if not, why not?

10 Now, both you Chief and Councillor
11 Daniels brought up the issue of interpreters. I
12 just want to say this is something that the
13 Commission takes quite seriously. We have
14 reviewed this in the past. We have had
15 considerable difficulty with both the matter of
16 interpretation and translation, in part because in
17 many parts of Manitoba, from one First Nation
18 community to the next, there's a different dialect
19 or a variation on dialects. So it's hard to find
20 interpreters and translators. So what we did do a
21 number of years ago in our process guidelines, in
22 our hearing directives, is that we had just asked
23 that where a First Nations person uses their
24 traditional language, that they provide somebody
25 to translate it, or as in the case of Councillor

1 Daniels today, they translate it themselves.

2 After all of our reviews, we conduct
3 an internal look, or relook at our procedural
4 guidelines. We have already talked about after
5 these hearings are concluded, or these proceedings
6 are concluded, that we would later in the spring
7 or after our report is concluded, or finished, we
8 may do a more extensive review of our procedural
9 guidelines. And we're certainly willing to look
10 at this question again, and would welcome any
11 input that you and other First Nation communities
12 might provide in that regard.

13 So turning now to questions. Manitoba
14 Hydro, Mr. Bedford?

15 MR. BEDFORD: Good morning, Chief
16 Henderson, Councillor Daniels, Elder Swampy and
17 Mr. Morrisseau. My name is Doug Bedford. I am a
18 lawyer. I work at Manitoba Hydro. My role in
19 this particular proceeding is, of course, as
20 counsel to Manitoba Hydro.

21 Chief Henderson, you told us all, or
22 you observed when you began that it took, in your
23 view, 40 years for Sagkeeng to be consulted and
24 for people to come to the community. And when I
25 heard that, I thought you must have momentarily

1 forgotten that in 1997, Sagkeeng First Nation
2 entered into an accord with my client, Manitoba
3 Hydro. That is accurate, is it not?

4 CHIEF HENDERSON: Yes, that is
5 accurate. But that is to deal with the dams,
6 right, not with Lake Winnipeg.

7 MR. BEDFORD: Well, I believe as a
8 broad observation that would be accurate on your
9 part.

10 CHIEF HENDERSON: Thank you.

11 MR. BEDFORD: And I further understand
12 that much time has been spent in recent years with
13 Manitoba Hydro and Sagkeeng First Nation
14 renegotiating that accord, and that the
15 negotiators were able to draft an agreement, but
16 that the agreement has not been ratified into
17 elections recently by the members of Sagkeeng
18 First Nation. Have I correctly summarized that
19 recent history of trying to continue the accord
20 between my client and your people?

21 CHIEF HENDERSON: That is correct.
22 And just so that you know, that Mr. Thompson did
23 give me a call last week, and we are going to be
24 engaging in a conversation. He just wanted to
25 give me about a week and a half into my new

1 position to settle down and then I will be meeting
2 with him, so...

3 MR. BEDFORD: And when I heard you
4 speak briefly about the lack of research being
5 done on Lake Winnipeg, I was reminded that we have
6 heard earlier in the hearing from members of other
7 First Nations, whose First Nations are located on
8 Lake Winnipeg, that very recently a group that's
9 currently known as the Lake Winnipeg Indigenous
10 Collective had an inaugural meeting. And one of
11 my colleagues here this morning tells me that
12 members of Sagkeeng First Nation attended that
13 inaugural meeting. Is that correct?

14 CHIEF HENDERSON: None did?

15 MR. BEDFORD: They did.

16 CHIEF HENDERSON: They did?

17 MR. BEDFORD: Yes.

18 CHIEF HENDERSON: I am not aware of
19 that. Who is this group? I mean, who was the
20 representatives from Sagkeeng?

21 MR. BEDFORD: I would have to ask my
22 colleague, and perhaps we can tell you when we're
23 finished this morning.

24 CHIEF HENDERSON: But they don't
25 represent Sagkeeng. The Government of Sagkeeng is

1 represented by Chief and Council. They represent
2 themselves.

3 MR. BEDFORD: Okay. As I understand
4 it, the purpose of the Lake Winnipeg Indigenous
5 Collective is that it will be formed, or it has
6 been formed and will consist of members of First
7 Nations whose communities are located around the
8 lake, and that one of its purposes will be to
9 bring forward knowledge from members of all those
10 communities about Lake Winnipeg. So assuming that
11 I have understood correctly what the purpose of
12 this group is, would you share my observation that
13 this seems like a sensible group for First Nations
14 like Sagkeeng to join and to bring forward their
15 indigenous knowledge about the lake?

16 CHIEF HENDERSON: It would be the
17 group that would be good to be part of. But I'm
18 not aware of this group and the people that are
19 sitting on that representing Sagkeeng have not
20 been given a mandate by Chief and Council to sit
21 on a board. So once I know who the group is, we
22 as council will sit in council and send a
23 representative to sit on that table.

24 MR. BEDFORD: And presumably the
25 gentleman is not going to mind, but I had just

1 been advised that your member who attended this
2 inaugural meeting is Mr. Doug Boyd. Is that a
3 name familiar to you?

4 CHIEF HENDERSON: Yes, it is.

5 MR. BEDFORD: Then I recommend you
6 best follow up with Mr. Boyd.

7 CHIEF HENDERSON: Thank you.

8 MR. BEDFORD: Councillor Daniels, as
9 you have heard me say, I am employed at Manitoba
10 Hydro. I'm accompanied here this morning by a
11 number of my fellow employees at Manitoba Hydro,
12 engineers, employees who have worked in our
13 Aboriginal division of Manitoba Hydro, and
14 employees who work in other divisions. I speak
15 for all of us when I say that we sincerely regret
16 that you had an experience in a cafe where you
17 overheard remarks which you found racist and that
18 your perception was that they were being spoken by
19 other employees of Manitoba Hydro. And I'm
20 wondering whether you or any of your colleagues
21 from Sagkeeng First Nation, who are here today,
22 are aware that as of March 31st, 2014, that would
23 be a year ago now, that Manitoba Hydro,
24 17.6 percent of Manitoba Hydro's employees are
25 First Nations people or Metis citizens of this

1 province. Were any of you aware of that
2 percentage?

3 MR. DANIELS: Myself, I'm not aware of
4 that. But like I said, when you hear people
5 making comments like that, especially when they
6 are in a group, you know, I would think that
7 people would view this as being racist, because
8 they were talking about these people from Cross
9 Lake, like I said. And I think if there's a group
10 together in a public place talking like that, I
11 think that kind of implies that they are making a
12 general comment about all First Nations people.

13 And I have a further question as a
14 matter of fact, that you were introducing yourself
15 as Counsellor Bedford?

16 MR. BEDFORD: No, just straight
17 Mr. Bedford will do.

18 MR. DANIELS: But you are a lawyer.

19 MR. BEDFORD: I am.

20 MR. DANIELS: That's what I'm
21 wondering, if we were afforded that knowledge
22 maybe we could have come with a lawyer too to
23 represent our community, but that's beside the
24 point.

25 What I was wondering about is these

1 studies that you talk about, I know from previous
2 meetings with Hydro, we used to speak with Bob
3 Brennan, and these studies he said were a waste of
4 time. And to quote Bob Brennan at the time, he
5 said it becomes a pissing contest with all these
6 studies that are done -- like say if we were to do
7 one, Hydro would do one, and then it just ends up
8 being a pissing contest he's saying. So maybe
9 that's why there's been such a lack of studies
10 that were done. So I don't know if that's still
11 the same attitude that Mr. Thompson has. But I
12 think it's probably one of the contributing
13 factors, given that we can't even have funding to
14 have interpreters for such an important issue
15 here. You know, if Hydro are so serious about
16 having Clean Environment Commission hearings, you
17 would think that they would want to hear
18 everything, and even to the point of funding
19 somebody like that. Whatever is important, and
20 people think that it's important enough, they
21 should fund it, especially when they have the
22 resources. So that's my view on that.

23 And I think if other communities,
24 indigenous communities were to make that
25 presentation in language -- and I don't think

1 that's -- Anishinaabe people, I just spoke to one
2 from up north there, and we understood each other
3 quite well. So even though we have different
4 dialect, we can still understand each other. So I
5 think that's not a very good reason not to have
6 them. But that's my point of view on that.

7 MR. BEDFORD: Well, no doubt you'd
8 agree with me when I observe that significant and
9 serious problems in the world are usually never
10 solved in a hurry, or in a day, but positive
11 developments with respect to the people of
12 Sagkeeng First Nation and my client, Manitoba
13 Hydro, positive developments are that both parties
14 have had an accord in the past, both parties
15 apparently agree that that accord deserves renewal
16 going forward.

17 And on the question of racism,
18 generally, one of the positive ways to try and
19 address racism is for large companies, like the
20 client I represent, to employ an appropriate
21 number of First Nations people in this province,
22 and Metis citizens in this province, which is
23 certainly what the company is trying to do.

24 MR. DANIELS: I think that's probably
25 what I was alluding to this morning earlier when I

1 made my comments about employing them. But also I
2 took it further, and Chief Derrick Henderson
3 alluded to it also about the revenue sharing. And
4 I talked about that when I mentioned about our
5 treaties. You know, we agreed to share these
6 resources, and I think it was more of a general
7 statement. But I agree with the things that you
8 talk about, about having positive relationships.
9 And that's why I keep mentioning, we're still
10 sitting here with you, talking with you, willing
11 to find ways to work together. And you know,
12 somebody comes and tells us, we have to be
13 patient. This is what we have been doing, being
14 patient. I don't think you have ever seen
15 Sagkeeng going to sit-ins or blockades of any of
16 your structures. So I think you have to take that
17 into consideration. But I think there's people
18 that are of that state of mind, you know, younger
19 people are being a little bit more active,
20 directly active, because of the situation that
21 they are in. So I think these things have to be
22 considered.

23 We are patient, I think sometimes even
24 to the detriment to our people.

25 So I appreciate what you say about

1 being patient, because out of this group here,
2 believe it or not, I am the one that's most
3 patient of our Chief and Council.

4 MR. BEDFORD: Thank you. No further
5 questions.

6 CHIEF HENDERSON: I just wanted to
7 make one comment in regard to the numbers of
8 employees that are First Nations, or Cree, or
9 Metis, sorry. I am not into the numbers, but I
10 know Sagkeeng members are given opportunities in
11 some of the Hydro contracts, but I don't know how
12 many members or what the percentage is. That's
13 one of the things, when we sit at the table, that
14 Manitoba Hydro is engaging our people. Because we
15 have 85 percent unemployment in Sagkeeng, the more
16 people that you get employed with Hydro as
17 partnerships, the better we are. We talk about
18 talking, here is where we are today. I don't know
19 what the numbers are but, you know, it's been a
20 good relationship with Manitoba Hydro.

21 MR. BEDFORD: My recollection, Chief
22 Henderson, and although you have confirmed the
23 recently renegotiated draft accord has not been
24 approved by your people, one of the topics covered
25 in that accord was exactly what you have indicated

1 is of interest to Sagkeeng, both employment and
2 business opportunities on various Manitoba Hydro
3 projects. I think I've got that correct, don't I?

4 CHIEF HENDERSON: Yes.

5 MR. BEDFORD: Thank you. No further
6 questions.

7 CHIEF HENDERSON: That is correct, and
8 we will be engaging in a meeting with Mr. Thomson
9 very shortly. So thank you.

10 THE CHAIRMAN: Thank you, Mr. Bedford.
11 Do any of the participants have questions, with
12 the usual caveats? Consumers Association?

13 MS. PASTORA SALA: Good morning. My
14 name is Joelle Pastora Sala and I'm here on behalf
15 of the Consumers Association of Canada.

16 First of all, I just wanted to thank
17 you all for your presentation this morning.

18 I just have two quick questions.
19 Earlier Mr. Bedford suggested, or he referred to
20 the Lake Winnipeg Indigenous Collective. Would it
21 be fair to say that you do not have a great deal
22 of familiarity with the governance structure of
23 this organization?

24 CHIEF HENDERSON: That is correct.

25 MS. PASTORA SALA: And would it be

1 fair to say that you do not have familiarity with
2 the funding structure of this organization?

3 CHIEF HENDERSON: That's correct.

4 MS. PASTORA SALA: Thank you. Those
5 are my questions.

6 THE CHAIRMAN: I just note that those
7 weren't exactly adverse to your position, but they
8 are on the record now so we'll let it stand.

9 Any other participants? Thank you.
10 Commissioners? Mr. Yee?

11 MR. YEE: Yes. I have a question for
12 Elder Swampy. You mentioned in your testimony
13 that you noticed the water quality has changed and
14 you haven't been able to swim in the river
15 anymore. I'm just wondering, what time period did
16 you notice this, the change in the water quality,
17 and when did you stop swimming in the river?

18 ELDER SWAMPY: Well, when I was
19 raising my kids, they were able to swim. This is
20 back in 1970s, 1970s. They were able to swim in
21 that water. And now you can't, kids can't go in
22 the water anymore because they get sores, they get
23 impetigo. Like there's something in that water.
24 And I was talking to one of the ex councillors, I
25 was going to mention something earlier. I

1 remember one time, because our graveyards are so
2 close, some of the graves fell in the water. And
3 we have to drink that water, you know. And to
4 think of it, when you pass away, they embalm your
5 body, and then when you fall in the water, the
6 caskets fall in the water, you know, how would you
7 feel if you have to drink that water and it's not
8 clean? You can tell it's not clean. And your
9 kids drink that water. That's what I said, it's
10 not safe.

11 Like I noticed a lot of changes, I
12 seen a lot of erosion, because we lost a lot of
13 land. Like where I live right now, it's not going
14 to be very far from now that I probably have to
15 move. And that's what I was talking about
16 changes. I see a lot of houses being taken
17 somewhere else because they will fall in so much
18 erosion.

19 Okay. Thanks.

20 MR. YEE: Thank you, Elder Swampy.
21 That's my question, Mr. Chairman.

22 THE CHAIRMAN: Ms. Suek?

23 MS. SUEK: My first question is for
24 Chief Henderson. You talked a bit about having
25 better communication, having some input into how

1 Lake Winnipeg is regulated, and having meaningful
2 consultation. Can you talk a little bit more
3 about what that means to you? What's meaningful
4 consultation to you? What's input that would be
5 valuable to you? And I know it's probably a big
6 question, but if you can just talk a little bit
7 about what you think of that?

8 CHIEF HENDERSON: Thank you for that
9 question. I think when I say meaningful, come to
10 Sagkeeng and sit with us for a couple of days, two
11 or three days, whatever it takes, not have a
12 meeting here for one hour and then we're gone. I
13 think the community needs to be sitting at the
14 table here with the leadership and asking
15 questions to whoever is there when we are
16 consulting with the government, Manitoba Hydro,
17 whoever it is. Because they are the ones that
18 have all the questions, the fishermen, the
19 trappers, the hunters will have all the questions.
20 I'm not a hunter, trapper or fisherman. I went to
21 school to become an educator, and that's what I
22 do. So those people have different interests than
23 I have as a leader. So I think that's what I mean
24 by meaningful, because the meaningfulness will
25 mean more to them than me speaking on behalf of

1 them. They will tell you what they mean when they
2 say it's affecting my livelihood, it's affecting
3 my trapping, it's affecting my fishing, whatever
4 it is. So that's what I meant by that, was to
5 come to the community, two or three days. If it
6 takes a week, it takes a week, whatever. That's
7 consultation. Not an hour, yes, we're here,
8 here's an agreement, sign it and away we go.

9 MS. SUEK: Okay. You also talked
10 about communication, like knowing what's happening
11 with the lake and whether it's going up or down.
12 Do you get that kind of communication now from
13 Manitoba Hydro? Like what kind of communication
14 do you get now, what kind of communication would
15 you see would be better than what you get now?

16 CHIEF HENDERSON: Well, we just put up
17 a new website for Sagkeeng First Nation. That's
18 where I wanted the communication. Whenever
19 something is happening in our community, because
20 everybody has the use of technology now, it's
21 their phone or whatever. We also have a radio
22 station, so I can go on the radio and do a PSA on
23 the radio, the wind is high coming from the north
24 today, whatever it is needs to be done to the
25 community. Because they are the ones that call us

1 here, they are the ones that call leadership. The
2 wind really high, it's coming over to my house,
3 it's going over the bank, whatever. We have had
4 those situations happening in our community. So I
5 have to be able to communicate to them by a phone
6 call or the weather station sending out, we're
7 having a weather bomb, just be prepared for it.
8 That's the kind of communication I am talking
9 about.

10 MS. SUEK: So if that doesn't happen
11 now, do you think it's up to Manitoba Hydro to do
12 that, or is that a provincial responsibility do
13 you think?

14 CHIEF HENDERSON: I think the province
15 has a disaster website, I'm not sure what it's
16 called, I think it is something that the province
17 may have, but anything to do with Lake Winnipeg,
18 if there's something that's happening in the lake,
19 I would like to be informed of it so I can let the
20 people know.

21 MS. SUEK: And that doesn't happen
22 now?

23 CHIEF HENDERSON: As far as I know --
24 I can't say for sure.

25 MS. SUEK: I know you're new.

1 CHIEF HENDERSON: All I'm saying is
2 better communication, whether it's Hydro or the
3 province or whatever it is, then that's fine.

4 MS. SUEK: Okay. I was wondering, you
5 talked about having to move some of the, I think
6 Councillor Morrisseau talked about having to move
7 some of your houses. Do you have some new rules
8 around where you build houses now, given the
9 erosion problem that you have, do you have a
10 policy on new buildings?

11 CHIEF HENDERSON: We're just
12 negotiating. We're in talks with the community,
13 with the First Nation Land Management Act, which
14 will help us for designating a plan on the members
15 there. If the community passes it, it's a two
16 year thing that we're working on right now with
17 our community, it's a land act for our community,
18 and if they approve it, it goes to a vote with
19 them. If they approve it, then that's what we
20 will bring to the community.

21 Right now we have -- INAC has a
22 policy. It's not a very good policy because you
23 can build a house where you want, right. But
24 we're trying to not build close to the shore,
25 we're trying to use an easement line, that that's

1 something we're trying to do to prevent having to
2 move that house again, right.

3 MS. SUEK: Thank you. That's all my
4 questions.

5 THE CHAIRMAN: Mr. Harden?

6 MR. HARDEN: I have just one question,
7 kind of following up on that last point. Is there
8 any mechanism for replacing reserve land that's
9 lost due to flooding and erosion from whatever
10 cause there is?

11 CHIEF HENDERSON: INAC has a fiduciary
12 responsibility to protect Indian lands, and they
13 will be the ones that will be addressing it.

14 MR. HARDEN: Okay, thank you.

15 THE CHAIRMAN: Thank you. I have no
16 additional questions. So I'd like to thank all of
17 you, Chief Henderson, Councillor Daniels,
18 Mr. Morrisseau, and Elder Swampy, as well as the
19 people who have supported you in making your
20 presentation. I'd like to thank you again for
21 your hospitality and hosting us in your community
22 in February. It was an interesting day. And as
23 in many First Nation communities, we had a very
24 good feast.

25 So thank you for your participation in

1 these proceedings. And would you like Elder
2 Swampy to close with a prayer? We will do that.
3 (Closing prayer)

4 THE CHAIRMAN: Thank you. I'm just
5 going to look for direction. Should we move right
6 to Peguis now or at 1:30?

7 MS. JOHNSON: At 1:30.

8 THE CHAIRMAN: Okay. We will adjourn
9 now until 1:30. We'll come back and resume with
10 the Peguis presentation at that time.

11 (Proceedings recessed at 11:10 a.m.
12 and reconvened at 1:30 p.m.)

13 THE CHAIRMAN: Good afternoon. We
14 will reconvene. Up this afternoon is a
15 presentation on behalf of Peguis First Nation.
16 Mr. Cizek, under our procedural guidelines we
17 require anybody giving evidence to be sworn in, so
18 I will ask the Commission secretary to attend to
19 that.

20 Peter Cizek: Sworn.

21 THE CHAIRMAN: Thank you, sir, you may
22 proceed with your presentation.

23 DR. CIZEK: Thank you. My name is
24 Peter Cizek, I'm a land use planner and
25 cartographer. I have 20 years mapping and land

1 use planning experience across Canada. And for
2 the past ten years almost, I've been involved in
3 mapping flooding and water change here in
4 Manitoba, first with trapline 18, along the
5 Burntwood River, and as part of the Wuskwatim
6 project. I also mapped water cover change and
7 flooding for the Southern Chiefs Organization in
8 southern Manitoba using 100-year old historical
9 maps. And I advised my colleague, David Flanders,
10 who mapped shoreline change along the Nelson River
11 and at Grand Rapids as part of the Keeyask
12 hearings, who presented that information to the
13 Clean Environment Commission a couple of years
14 ago.

15 Last year I completed a PhD at the
16 Collaborative for Advanced Landscape Planning at
17 the University of British Columbia, and I mapped
18 and analyzed existing approved and proposed
19 footprint of the Alberta tar sands.

20 So I have two presentations for you
21 today. The first presentation deals with
22 estimated shoreline change at the northern end of
23 Lake Winnipeg. And the second presentation
24 estimates water cover and change along the Fisher
25 River and the Peguis reserve.

1 So on to the first presentation. And
2 this research, what I did was very similar to the
3 work that David Flanders did as part of the
4 Keeyask hearings, where we compared historical
5 national topographic system maps to current
6 so-called CanVec data, CanVec is Canada vector
7 digital map. In this case we compared maps at
8 1:50,000 scale rather than 1:250,000 scale, which
9 is what David Flanders used over a much, much
10 larger area here. Because it was a smaller area,
11 we were able to focus on the larger scale mapping.

12 So the outline of my presentation is,
13 first, I will talk about the specific purpose of
14 the study, then the methods used, I will give you
15 an accuracy assessment about whether or not these
16 changes were accurate based on the data available.
17 I will summarize the results, and then I will
18 provide you with my conclusions and
19 recommendations.

20 The purpose of the study is here
21 confined to identify shoreline changes in the
22 north end of Lake Winnipeg, following Lake
23 Winnipeg Regulation and the construction of the
24 LWR infrastructure and the Jenpeg Generating
25 Station. The study area focuses, again, just on

1 the north end of Lake Winnipeg, due to the time
2 and resource constraints. And we are looking at
3 eight 1:50,000 national topographic system map
4 sheets, at 1:50,000. We used a geographic
5 information system, specifically ArcGIS software
6 to compare national topographic system maps from
7 before 1970 to the current Canada vector digital
8 data also at 1:50,000 scale.

9 So the study area is identified in
10 this map, where we have eight map sheets that
11 cover the shore of the north end of Lake Winnipeg.
12 And for your reference, the width at this point,
13 to this point is about 90 kilometres, and each
14 national topographic system map sheet is about 33
15 kilometres wide and just over 20 kilometres high.

16 The methods, again, we build on two
17 previous studies carried out by myself and my
18 associates that all followed basically these
19 steps. Number 1, we retrieved and scanned hard
20 copy pre-1970 maps. In this case we retrieved
21 seven out of eight from the University of British
22 Columbia map library. And we requested one from
23 Manitoba Hydro, which unfortunately had not been
24 produced until 1983. There was not a map pre-1970
25 for the Norway House map sheet.

1 We then take those scanned images and
2 we bring them into the ArcGIS software and we do
3 something called geo referencing, which means that
4 we pin the map into its exact geographic
5 coordinates into the software, so that it can be
6 compared accurately to the Canada vector digital
7 data.

8 Step number 3, we examine the
9 shoreline changes by following the shoreline of
10 Lake Winnipeg and adjacent areas, and then we
11 digitize the shoreline changes, which means that
12 we trace the shoreline from the old map and join
13 it to the new shoreline from the digital data
14 provided by the Canada vector series.

15 In terms of the accuracy assessment of
16 doing all of this comparison, you have to
17 understand that the map is not the territory,
18 meaning that no map is a 100 per cent accurate
19 representation of features on the ground. Even
20 legal surveyors do their mapping within a certain
21 error, although in their case it might be within a
22 few centimetres. In this case when we are using
23 1:50,000 maps, they are somewhat higher. We have
24 to account for that. So in terms of time, the
25 first bullet point, again I pointed out that all

1 of the available maps were based on aerial
2 photography and field surveys prior to 1970, as
3 confirmed by my correspondence with Natural
4 Resources Canada, except map 63H13, Norway House,
5 which was based on -- just published in 1983, but
6 based on aerial photography from 1976.

7 The accuracy for the geo referencing,
8 when we pin the map, the scanned image of the map
9 into the geographic information system software,
10 at a maximum 3.6 millimetre root means square
11 error, when we compare that to the maximum
12 distance of the map, which is about 33 kilometres,
13 that works out to less than 1 out of 750 million.
14 So the actual geo referencing error is considered
15 inconsequential. However the maps themselves have
16 a horizontal positional error, which means that,
17 as I said before, the map is not the territory,
18 the map is just a representation of where things
19 are. And at 1:50,000 it is in the order of about
20 50 metres for the old map sheets, as confirmed by
21 Natural Resources Canada, and about 25 metres for
22 the new data. So when we are comparing one map
23 sheet to another, the combined error is the sum of
24 the two errors. So the error in the comparison of
25 the two shorelines can range from 75 metres to as

1 much as 126 metres in the worst case scenario.

2 So to be conservative, the only
3 shorelines that we identified were those where the
4 changes exceeded either from 75 metres to 126
5 metres, except in some cases we added data which
6 appeared in the new Canada vector series which
7 were so-called intermittent water coverage
8 changes. Intermittent means changes from time to
9 time. So I noticed that in the newer digital data
10 there were some shorelines that were shown as
11 flooding or being covered with water only parts of
12 the year. And the old maps did not show that. So
13 presumably there were some places where the water
14 depth had changed, or the changes in the
15 regulation or height of elevation of Lake
16 Winnipeg, pardon me, caused these shorelines to be
17 intermittent. So we added all of those regardless
18 of whether they were 75 to 126 metres.

19 So here is a summary table of the
20 results where we had three classes of shoreline
21 change. The first one was the intermittent
22 increase of land where there were these 18 places
23 that we identified with a total of about
24 520 acres, or 210 hectares, where the shoreline
25 change was intermittent from time to time. Then

1 there were about 9 permanent increases of land
2 where, possibly due to sedimentation, the
3 shoreline had, the land had actually increased by
4 about a total of 217 acres or 88 hectares. The
5 largest of these categories was the permanent loss
6 of land, which was a total of about 1,177 acres,
7 or 476 hectares.

8 The last category, there were eight,
9 so there were a total of 35 locations where we
10 mapped changes in the shoreline. On each of the
11 map sheets out of -- seven out of eight map
12 sheets, except Norway House, and possibly because
13 that map sheet was based on 1976 aerial
14 photography after the infrastructure and Jenpeg
15 Generating Station had been built.

16 So I will show you an overview map
17 showing all of the categories, and then I will
18 show you three out of ten focus maps which
19 highlight the most significant changes. Due to
20 time constraints, I can only show you the
21 highlight maps, but all of the 10 focus maps are
22 included in the appendix of this presentation, as
23 well as the technical report, where we zoom in to
24 the shoreline changes so you can see them in more
25 detail.

1 So here is the overview map of the
2 north end of Lake Winnipeg, and it is colour coded
3 by the type of shoreline change. The green are
4 the intermittent increases of land, that's the
5 light green. Then the dark green are the
6 permanent increases of land. And the red are the
7 permanent losses of land that we've identified.

8 So starting at the western end of the
9 study area, we can see a series of intermittent
10 increases of land right up to the end of Limestone
11 Point. There is a large permanent increase of
12 land within Limestone Bay. Then the largest and
13 most significant permanent losses of land are just
14 northwest of the 2-Mile Channel, including the
15 2-Mile Channel. And the other larger loss of land
16 is all along Peat Point, where that entire
17 peninsula has disappeared. And then there are
18 some intermittent increases of land within the
19 Sepastak Channel of the Nelson River, and as well
20 as the Nelson River channel coming from Lake
21 Winnipeg.

22 So I'll focus on three of the most
23 significant changes, starting first with this one
24 here on the west end, and then one along the
25 northwest of the 2-Mile Channel and then the Peat

1 Point -- we jumped there already. So we are
2 focusing, here is the location of the focus map
3 and the study area, and we see there are three new
4 intermittent increases of land and they are
5 identified by number as 1, 2 and 3, and here in
6 the table are estimates for the size of those
7 areas. So the first one is about 95 acres, the
8 second one about 101 acres, and the third one
9 about 119.

10 Then moving on to the area northwest
11 of the 2-Mile Channel, in this case there is these
12 elongated losses of land here going from number 29
13 to 32. They are ranging from 167 acres to about
14 358, when you include the 2-Mile Channel. There
15 is a small loss of land here at this point, and
16 followed by a permanent increase of land right
17 next to it. Whether that means that sediment has
18 been transported from the area at the point to
19 this area is a possibility, but I don't know.

20 Then moving on to the Peat Point,
21 where the entire peninsula as well as this
22 shoreline has disappeared in Playgreen Lake. We
23 have a situation here where the two biggest pieces
24 that have disappeared, number 34 and 35, number 34
25 is about 418 acres, and number 35 is about

1 153 acres. And right to the west of that we have
2 the similar pattern as before where a number --
3 this area has disappeared and three, a little
4 peninsula and two islands have been created,
5 number 22, 23, and 24, 35, 12 and 9 acres. Again,
6 whether this is due to the transport of materials
7 from the area that has disappeared is a
8 possibility, but I don't know.

9 So the conclusions from this, we found
10 that there have been identifiable shoreline
11 changes on the north end of Lake Winnipeg
12 following Lake Winnipeg Regulation, construction
13 of the LWR infrastructure and construction of the
14 Jenpeg Generating Station. Whether these changes
15 have been directly caused by Lake Winnipeg
16 Regulation and so forth, I can't tell you. All I
17 can say is that there is a before and after
18 change, based on the data available.

19 The most significant shoreline changes
20 are the loss of shoreline northwest of the
21 artificial channel between Lake Winnipeg and
22 Playgreen Lake, as well as the loss of an entire
23 peninsula in the northwest portion of Playgreen
24 Lake. There are also clusters of intermittent
25 shoreline increase at the west end of the study

1 area, in the Nelson River channel, connecting Lake
2 Winnipeg to Playgreen Lake, and then the little
3 Sepastak channel.

4 The largest permanent shoreline
5 increases in the north end of Limestone Bay, while
6 the remaining small shoreline changes are
7 associated with intermittent shoreline gains or
8 intermittent shoreline losses elsewhere in the
9 study area.

10 Permanent shoreline loss is the
11 largest and most significant result of this
12 analysis.

13 Recommendations: This research
14 approach could be extended to all of Lake Winnipeg
15 and the waterways affected by hydroelectric
16 development in Manitoba, which I believe was also
17 recommended to the Clean Environment Commission
18 during the Keeyask hearings.

19 It is recommended that more detailed
20 and accurate analysis could be conducted if larger
21 scale aerial photographs or maps are available.

22 Again, we used only publicly available
23 information, and I have no idea what may be
24 available in private holdings. Availability of
25 data, or images that are more accurate than

1 1:50,000 topographic system maps may provide more
2 accurate results.

3 And finally, field work should be
4 conducted by hydrologists and geomorphologists to
5 confirm the causes for the shoreline changes
6 identified.

7 So that concludes my first
8 presentation. Again the focus, maps 1 to 10 which
9 shows each change in detail are available at the
10 appendix of this handout.

11 So the second presentation, a bit of
12 research I did relates to an attempt to estimate
13 water cover and change for the Fisher River and
14 the Peguis Reserve before and after selected peak
15 water levels between 2006 and 2011.

16 The outline of this presentation is as
17 follows: First of all, I will talk about study
18 objectives, the location dates of peak water gauge
19 levels, I will show you the Peguis Reserve and the
20 study area surrounding it, the methods that I used
21 to estimate water cover. Again, I will focus on
22 some selected results, since showing you all of
23 the results is impossible within this brief
24 presentation, but all of the results are again
25 included in the appendix of both the presentation

1 and the technical report. I will provide you an
2 analysis comparing the results, and I will provide
3 you some conclusions and recommendations.

4 The study objectives here were to
5 identify peak high water levels on Lake Winnipeg
6 between the years 2000 to 2014, using water gauge
7 data from the gauges closest to the Fisher River
8 and the Peguis First Nation, then to identify and
9 order satellite images from the mouth of the
10 Fisher River to the south end of the Peguis
11 reserve that correspond with these peak high water
12 levels identified in the previous step.

13 And we obtain satellite images from
14 the mouth of the Fisher River to the south end of
15 the Peguis reserve, and extract and identify and
16 analyze the extent of the flooding for each
17 satellite image. Here is the location, general
18 location of the Peguis Reserve, and the nearest
19 water gauges on Matheson Island and Pine Dock. I
20 was told there is a water gauge near Peguis at
21 Dallas, but this one doesn't measure water
22 elevation, it measures water volume.

23 Here is the summary of the peak water
24 dates that I was provided. And these were the
25 dates selected by Peguis First Nation, when they

1 had experienced flooding, and those are the
2 elevations at Matheson Island and Pine Dock in
3 both metres and feet. I was told that the reason
4 Peguis had selected three dates during 2010 was
5 because those were dates where significant
6 flooding and evacuations had occurred.

7 This is a map of the Peguis Reserve
8 and study area, where we have the Peguis Reserve
9 in the lower left. This piece here is actually
10 part of the Fisher Reserve, which is here, and
11 then this piece here. So Peguis Reserve is just
12 this, and apparently there are some excised pieces
13 here as well. So Peguis Reserve is about 307.8
14 square kilometres. The larger study area, which
15 is this rectangle, which includes Peguis Reserve,
16 and it is about 996.1 square kilometres. And the
17 study area was simply defined by the software, and
18 the way it clipped out a piece of the -- of the
19 original satellite image that includes both Peguis
20 Reserve and Fisher River Reserve, so that it
21 includes everything from the mouth of the Fisher
22 River right to the southern edge of the, southern
23 end of the Fisher River on Peguis Reserve.

24 So the following methods were used to
25 estimate the water cover. We had originally hoped

1 to obtain very high resolution satellite imagery
2 along the Fisher River to the southern end of the
3 Fisher Reserve, where we could document how the
4 Fisher River itself floods and breaks the banks
5 possibly. But, unfortunately, we discovered that
6 on the particular dates identified, or even close
7 to the particular dates identified, none of these
8 high resolution images, which are at a pixel size
9 of less than one metre, weren't available.
10 However, the archive of the more moderate
11 resolution Landsat images at 30 metre resolution
12 is available for free through the United States
13 geological survey. And because they are available
14 for free, we are able to not just show flooding at
15 the dates or just after the dates of the high
16 water levels, but we are able to do before and
17 after sequences.

18 So based on the precedence and the
19 scientific literature that we reviewed, it is
20 possible to use near infrared band number 4, or
21 other infrared bands as well to detect water cover
22 using Isodata, Cluster, Isoclust, unsupervised
23 classification in IDRISI software.

24 So, to explain this for the laypeople
25 in the audience, when we use the infrared band in

1 the satellite, it is basically measuring heat
2 that's being reflected off the land. And water is
3 a very effective way of blocking out the heat. So
4 when we select out those parts of the image that
5 show cold, we are detecting, likely to detect
6 water. Now, it may detect water, it may also
7 detect, depending on the season, snow or ice.

8 Now, these classifications in IDRISI
9 software, IDRISI software is one of the more
10 advanced satellite image analysis pieces of
11 software, simply using various algorithms to sort
12 out all of these patterns within the image.

13 So I'm going to present to you two of
14 the selected results where we were able to find
15 satellite images before and after these high water
16 dates. Even within the Landsat archive, we are
17 limited -- we are limited about what -- whether or
18 not there are cloud free images before or after
19 these particular dates. So in this one we had one
20 that was within a week before the high water date
21 and within eight days after the high water date.

22 In this case it was estimated that on
23 the Peguis Reserve before the high water date,
24 about 8.5 square kilometres of the reserve was
25 covered with water, and after the high water date

1 on July 9, about 41.9 square kilometres was
2 covered with water. So this increased by a factor
3 of 4.9 before and after. Within the study area it
4 was estimated that at about 103.6 square
5 kilometres of the study area was covered with
6 water. Now, of course this is including all of
7 the perennial lakes and rivers where there is
8 water cover year round. So we are not
9 distinguishing water cover that is there all year
10 round between the flooding, we are just looking at
11 total water cover. In the study area, if it was
12 103 before the peak water level and 273 after, so
13 that's a change of 2.6, a factor of 2.6 within the
14 study area. Here are the two maps. This is
15 June 23rd, before, and July 9th, after.

16 Now, this second image may not be
17 completely accurate because, again, we are limited
18 by cloud cover. This one was generally cloud free
19 but there seemed to be a cloud here, and this may
20 be some kind of a reflection of the cloud shadow.
21 But generally speaking, here it is again, before
22 and after.

23 Moving on to the other selected case,
24 which is case number 6, on September 23rd, 2011 is
25 before, and in this case Peguis identified a full

1 week of high water levels, and the closest image
2 that we could find after that was right on
3 September 30th. And in this case, in the fall
4 time there was much more water cover, 39.5 square
5 kilometres on the Peguis Reserve, which increased
6 to 87.6 square kilometres. That's an increase of
7 a factor of 2.2. And within the study area there
8 was about 266.2 square kilometres, and then
9 followed by an estimated 452 square kilometres,
10 and that's an increase of a factor of about 1.7
11 for the study area. And this is what it looks
12 like, September 23rd, water cover, and then
13 change, September 30th, 2011 water cover. You can
14 flip back and forth to get an idea.

15 I then did a comparison of all of the
16 cases using bar charts, and there are some
17 indications of a cause and effect relationship,
18 but they are not strong, because we have a whole
19 bunch of other data that's confounding the case.

20 So in the first, in case number 1,
21 because we were only able to find a satellite
22 image almost one month after the peak water level,
23 we actually had a decrease in the estimated water
24 cover of the Peguis Reserve. Then in case number
25 2, this was April 4, 2010, the previous satellite

1 image in March, it appeared that everything was
2 still frozen and covered with snow and ice. And
3 indeed on April 4, 2010, there may have been -- it
4 is the highest of all of the cases in terms of
5 water cover, at that time there may have also been
6 ice covering the land, followed by water. So
7 there 75 per cent of the Peguis Reserve was
8 estimated to be covered with some form of water in
9 what -- whether it was snow or ice, we don't know.

10 Down here we have, in between
11 June 23rd, 2010, and July 9, 2010, we had the
12 biggest changes, but note possibly because these
13 were the summer months, the actual water cover was
14 the smallest of all of the cases in terms of the
15 before, which changed by a factor of -- what was
16 it again -- 4.9. We had some in October 2010, on
17 October 13 on the Peguis Reserve we had an
18 estimated change here by a few per cent, barely
19 detectable change, increase from August 13, 2011
20 to August 19, 2011. And then in case number 6,
21 which I also presented, there was the second
22 somewhat higher water cover, but the second
23 largest change on the reserve.

24 In this slide we see the similar
25 pattern, except this is for the entire study area,

1 where again in the first case, possibly because of
2 the -- we weren't able to find a satellite image
3 after that was close to the high water, peak water
4 level, the water cover actually decreased. In the
5 second case we had a very high percentage of water
6 cover for the study area. And the third case was
7 relatively low water cover, but it was the highest
8 change in that summer situation. We had a little
9 bit of change in October 6, 2010 to October 13,
10 2010, but in this case this was the highest water
11 cover in the study area. Note that for the Peguis
12 reserve in the previous slide, the highest
13 estimated water cover was April 4th. Here in this
14 case it is in October. It is higher than over
15 here. We had barely detectable change
16 October 13th to 29th, and the second highest
17 change September 23rd to September 30th, 2011.

18 This compares the change in estimated
19 water cover area of the Peguis Reserve and the
20 study area after peak water levels. This is
21 comparing before, how much change there was after
22 the water levels in terms of square kilometres, in
23 terms of here in case number 1, both the reserve
24 and the study area went down. In case number 2
25 was the biggest change. And case number 3 was

1 somewhat detectable -- case number 3, barely. And
2 case number 2 was the biggest change for the
3 reserve and the second biggest in terms of
4 absolute area for the study area.

5 Here we compare it in terms of
6 per cent in case number 1, everything went down as
7 a percentage. Here the percentages are per cent
8 of the reserve in the study area. As a
9 percentage, case number 6 is the largest, case
10 number 3 is the second. This one is the third and
11 this one is barely detectable.

12 So in terms of conclusion and
13 recommendations, these are very preliminary
14 estimates, but the estimates do indicate that
15 water cover at the Peguis Reserve may increase
16 following peak water gauge levels.

17 Again, I can't say whether there is a
18 cause and effect between the two, simply detecting
19 a before and after situation.

20 The Peguis Reserve may experience
21 flooding not only in the spring, as in case number
22 2, and in the fall, as in case number 4 and number
23 6, but also in the summer, as in cases number 1, 3
24 and 5.

25 Now, the other point is that again

1 these are only estimates, and it is necessary to
2 go out and do more analysis and certainly to do
3 more ground truthing, for example, to compare
4 these estimates with whatever ground based or
5 aerial photographs of the study area are
6 available. And I'm now talking about vertical, or
7 through photography, even ground level pictures or
8 videos, or from the air oblique, meaning just out
9 a window, as long as they can be identified for
10 location and time and date would be a way to
11 provide you an accuracy assessment of this type of
12 satellite image interpretation.

13 So that concludes my second
14 presentation. And again all of the maps are
15 included in the appendix for your examination in
16 the presentation and the technical report. So
17 thank you very much for your time and I look
18 forward to your questions.

19 THE CHAIRMAN: Thank you, Dr. Cizek.

20 Is Manitoba Hydro ready to go or would
21 you like a brief break?

22 MR. PAUL: We are ready to go. My
23 name is Sasha Paul, I'm one of the lawyers for
24 Manitoba Hydro. Do you need time or are you good?
25 All right.

1 Good afternoon, Dr. Cizek. My
2 understanding from your evidence is that you are
3 an expert in what I will call mapping or mapping
4 images, is that fair?

5 DR. CIZEK: Yes.

6 MR. PAUL: And you are looking at what
7 I will call sophisticated photos taken over time
8 and noting changes, fair enough?

9 DR. CIZEK: Are you referring to the
10 second report?

11 MR. PAUL: Yes?

12 DR. CIZEK: Yes.

13 MR. PAUL: And you have been fair
14 today in terms of your evidence in saying that
15 while you detect changes, you are not able to
16 speak to the causes of the changes; is that fair?

17 DR. CIZEK: Yes.

18 MR. PAUL: And you recommended that a
19 hydrologist or geomorphologist examine matters to
20 determine if there are any causal links?

21 DR. CIZEK: You are referring to the
22 first report now?

23 MR. PAUL: Yes, sorry, I'm jumping
24 between reports. But that's fair?

25 DR. CIZEK: True.

1 MR. PAUL: And it is fair to say you
2 are not a hydrologist?

3 DR. CIZEK: I am absolutely not a
4 hydrologist.

5 MR. PAUL: And you are not a
6 geomorphologist?

7 DR. CIZEK: I am not.

8 MR. PAUL: If we then jump to what I
9 call the water cover report, you are here to do a
10 preliminary estimate of water cover at least in
11 part on Peguis Reserve land; is that correct?

12 DR. CIZEK: That's correct.

13 MR. PAUL: And you have been directed
14 by your client, Peguis, to examine six peak water
15 levels over a 14-year period, correct?

16 DR. CIZEK: Potentially it was a
17 14-year period, they settled on between 2006 and
18 2011.

19 MR. PAUL: And from what I understand
20 from your table, you would have examined Federal
21 Government water survey data for Lake Winnipeg
22 elevations?

23 DR. CIZEK: I did not examine it, I'm
24 simply reporting it.

25 MR. PAUL: So you were provided those

1 elevations by your client?

2 DR. CIZEK: Yes.

3 MR. PAUL: Okay. So you did not
4 undertake analysis of the water gauge readings at
5 Matheson or Pine Dock yourself?

6 DR. CIZEK: I did not.

7 MR. PAUL: And maybe then this is
8 outside of your expertise, or your knowledge base,
9 but it is fair to say that that Federal Government
10 water gauge information is publicly available, is
11 that fair?

12 DR. CIZEK: It certainly is.

13 MR. PAUL: And so then it would have
14 been available to you to examine the water gauge
15 readings at Matheson Island and Pine Dock if you
16 wished to?

17 DR. CIZEK: I could have, yes.

18 MR. PAUL: And it is also fair to say
19 because, of course, your report on water cover is
20 preliminary, you are only looking at six instances
21 and you weren't looking at the entire history of
22 Lake Winnipeg and how the water levels go up and
23 down?

24 DR. CIZEK: I did not.

25 MR. PAUL: And I also understand that

1 you were not asked to consider any rainfall
2 records in your analysis for this report?

3 DR. CIZEK: I did not, and I referred
4 to the possibility of examining those in my
5 recommendations.

6 MR. PAUL: So then it is fair to say
7 you wouldn't have been able to speak to or
8 consider whether or not rainfall increases or
9 decreases water cover at Peguis in the cases that
10 you have looked at?

11 DR. CIZEK: I absolutely do not.

12 MR. PAUL: In fact, you recommend
13 further research on weather events be conducted?

14 DR. CIZEK: Absolutely.

15 MR. PAUL: And that's because that's
16 outside of your knowledge base for this particular
17 report?

18 DR. CIZEK: Absolutely.

19 MR. PAUL: And you mentioned this to
20 some degree. I also understand that you would not
21 have considered snow melt data, to the extent that
22 there is any, and it is possible that accumulated
23 snow may have increased water cover?

24 DR. CIZEK: It is possible in days in
25 the spring when there was snow, certainly.

1 MR. PAUL: It is fair to say that you
2 are looking essentially at Lake Winnipeg water
3 levels in your analysis?

4 DR. CIZEK: Those are the only ones
5 available, to my knowledge.

6 MR. PAUL: And you had spoken to this
7 earlier, that you were advised that there was a
8 gauge on the Fisher River. Do you recall that
9 evidence?

10 DR. CIZEK: I was told that there was
11 a gauge at Dallas to measure water volume.

12 MR. PAUL: And that gauge would be
13 closer to the community of Peguis than Matheson
14 Island or Pine Dock, correct?

15 DR. CIZEK: That's right.

16 MR. PAUL: And my information is that
17 the gauge data for Dallas, if I can call it that,
18 that would be publicly accessible to you as well
19 through the Federal Government, correct?

20 DR. CIZEK: I have no idea whether it
21 is publicly accessible.

22 MR. PAUL: You are not in a position
23 to confirm or deny that that?

24 DR. CIZEK: No.

25 MR. PAUL: That's fair. My

1 information is that the gauge at Dallas does refer
2 to levels as of 2010 forward. So I take it from
3 your evidence that you are not able to speak to
4 that either way?

5 DR. CIZEK: No.

6 MR. PAUL: But where it did speak to
7 levels, that would be something that was available
8 or could have been available for your
9 consideration but wasn't part of your report?

10 DR. CIZEK: That's right, it is not
11 part of it.

12 MR. PAUL: Furthermore, you spoke to
13 the size of the Peguis Reserve being roughly 307
14 square kilometres, correct?

15 DR. CIZEK: That's how I measured it,
16 yes.

17 MR. PAUL: And I understand in your
18 various cases you are given a table of water
19 levels at Lake Winnipeg, which you cite in your
20 report, correct?

21 DR. CIZEK: Yes.

22 MR. PAUL: And that was also in one of
23 your powerpoint slides. Are you able to bring up
24 that slide?

25 DR. CIZEK: Sure. This one?

1 MR. PAUL: Yes. And again, that
2 information was given to you by your client?

3 DR. CIZEK: Yes.

4 MR. PAUL: To look at the gauge
5 information, okay.

6 As I understand it from your analysis,
7 when you look at case 2, you are seeing water
8 levels on Lake Winnipeg around 713 feet, correct?

9 DR. CIZEK: Yes.

10 MR. PAUL: And at that time you are
11 reporting water cover on Peguis at 230 square
12 kilometres; correct?

13 DR. CIZEK: Which date are you
14 referring to?

15 MR. PAUL: I'm looking at case 2.

16 DR. CIZEK: Can you tell me which
17 date -- oh, case 2, okay, April 4, 2010.

18 MR. PAUL: So you are agreeing with me
19 that the water cover you are reporting on Peguis
20 Reserve land is 230 square kilometres.

21 DR. CIZEK: On April 4, that's the
22 estimate based on the imagery, yes.

23 MR. PAUL: If you were to go back to
24 the water table -- I should ask this. Do you have
25 a copy of your written report that was disclosed

1 to us about a week ago? That might be easier as
2 opposed to flipping --

3 DR. CIZEK: Sure.

4 MR. PAUL: Great. Now, when we look
5 at case 1, your information suggests that water
6 levels at Lake Winnipeg are roughly 715 feet;
7 correct?

8 DR. CIZEK: Yes.

9 MR. PAUL: And I understand then that
10 the water cover you are reporting at its largest
11 on reserve land in case 1 is 65.4 kilometres
12 squared; correct?

13 DR. CIZEK: Yes.

14 MR. PAUL: And when it comes to case
15 3, we are also at water levels of roughly
16 715 feet; correct?

17 DR. CIZEK: Yes.

18 MR. PAUL: And you would agree with me
19 that the water cover on reserve has now gone down
20 to 41.9 kilometres, correct?

21 DR. CIZEK: This is in July 1st, 2010.
22 Sorry, which date are you referring to?

23 MR. PAUL: I am referring to case 3,
24 that the largest recorded water cover on Peguis
25 Reserve at that time is 41.9 kilometres squared?

1 DR. CIZEK: It will be easier if I
2 look at the tables. Just hang on.

3 Case 3, you are asking what?

4 MR. PAUL: I'm asking you to confirm
5 that the largest recorded water cover on Peguis
6 Reserve land is 41.9 kilometres squared?

7 DR. CIZEK: On July 9?

8 MR. PAUL: And that's case 3, correct?

9 DR. CIZEK: Okay.

10 MR. PAUL: Yes?

11 DR. CIZEK: Yes.

12 MR. PAUL: And so we are seeing as
13 between case 1 and case 3, water levels at 715,
14 and the water cover on reserve has decreased from
15 65.4 to 41.9 between case 1 and case 3, correct?

16 Case 1 you are referring to water
17 cover on Peguis reserve land.

18 DR. CIZEK: On what date?

19 MR. PAUL: May 11, 2006.

20 DR. CIZEK: 65.4.

21 MR. PAUL: And that's part of case 1,
22 correct?

23 DR. CIZEK: Yes.

24 MR. PAUL: And you also would then
25 agree with me, as I gather when you compare case 1

1 with case 3, the largest recorded water cover on
2 Peguis reserve land is 65.4 in case 1 and 41.9 in
3 case 3, correct?

4 DR. CIZEK: That's what the tables
5 say, yes.

6 MR. PAUL: And that is at the time
7 that the Lake Winnipeg water levels are both at
8 715, correct?

9 DR. CIZEK: Based on the peak water
10 level table.

11 MR. PAUL: From what you were told?

12 DR. CIZEK: That's right.

13 MR. PAUL: Now, when you move to case
14 6, you will also look, roughly speaking, that the
15 water level on Lake Winnipeg is 715 feet, correct?

16 DR. CIZEK: Yes, that's what the
17 tables say.

18 MR. PAUL: And when you look at case
19 number 6, the largest recorded water cover on the
20 reserve is 87.6 kilometres, correct?

21 DR. CIZEK: That's right. That's what
22 the tables say.

23 MR. PAUL: And that is the largest
24 recorded water cover that we see at the 715-foot
25 level, between cases 1, 3 and 6, correct?

1 DR. CIZEK: That's the relationship to
2 the water level, yes.

3 MR. PAUL: And in case number 5, you
4 will see that water levels are around 717 feet,
5 correct?

6 DR. CIZEK: That's what the tables
7 say.

8 MR. PAUL: And that table was part of
9 your report that you relied upon?

10 DR. CIZEK: It is right there.

11 MR. PAUL: And that the water cover
12 for case 5 at its highest on the reserve is 53
13 square kilometres, correct?

14 DR. CIZEK: That's what is in the
15 table.

16 MR. PAUL: And that's less than case 6
17 by about 30 square kilometres, correct?

18 DR. CIZEK: August 13, 2011 is less
19 than September 30th, 2011, is that what you are
20 asking?

21 MR. PAUL: Yes?

22 DR. CIZEK: That's -- your arithmetic
23 is impeccable.

24 MR. PAUL: The first time that anyone
25 has ever said that to me.

1 I want now to turn to page 18 of your
2 water cover report, where you say that the study
3 indicates that water cover at the Peguis Reserve
4 may increase following peak water gauge levels.
5 Do you have that handy?

6 DR. CIZEK: Yes.

7 MR. PAUL: By the use of the word may,
8 I gather that you are not being definitive here.

9 DR. CIZEK: Absolutely not.

10 MR. PAUL: So in the same way there
11 may not be a relationship at all?

12 DR. CIZEK: There may or may not, but
13 there are some indications that there may, it
14 requires further study.

15 MR. PAUL: But you can't say right
16 here, right now, whether or not the water levels
17 have a relationship, you need further studies is
18 what I understand?

19 DR. CIZEK: That's exactly what I'm
20 saying.

21 MR. PAUL: Sorry, just one moment.

22 If I can then jump to the shoreline
23 report? If I can put it this way, your focus
24 moves from the south to the north part of Lake
25 Winnipeg; fair?

1 DR. CIZEK: No.

2 MR. PAUL: Let me rephrase the
3 question. Your water cover report was looking at
4 Peguis Reserve land; correct?

5 DR. CIZEK: It was looking at Peguis
6 Reserve and the Fisher River from the mouth to the
7 south end of Peguis Reserve.

8 MR. PAUL: Right. And that is, we
9 will say central to south of Lake Winnipeg,
10 correct?

11 DR. CIZEK: I did not examine Lake
12 Winnipeg in that report.

13 MR. PAUL: If you look at both your
14 reports, Dr. Cizek, my understanding of your
15 shoreline report is you were looking at the north
16 end of Lake Winnipeg, correct?

17 DR. CIZEK: The shoreline report
18 examines the shoreline of the north end of Lake
19 Winnipeg. The second report about water cover did
20 not examine the shoreline of Lake Winnipeg, it
21 examined within the Peguis Reserve and along the
22 Fisher River.

23 MR. PAUL: And I'm just trying to get
24 the sense of geography. My understanding, as
25 between the two reports, is that your water cover

1 report looks at the Peguis Reserve, and your
2 shoreline report looks at the northern part of
3 Lake Winnipeg, correct?

4 DR. CIZEK: It is looking at the
5 shoreline of the north end of Lake Winnipeg.

6 MR. PAUL: And it is also fair to say
7 then, that to your knowledge there are no reserve
8 lands in the north end of Lake Winnipeg that's the
9 subject of your shoreline report, correct?

10 DR. CIZEK: To my knowledge, there are
11 no Peguis Reserve lands.

12 MR. PAUL: And when it comes to your
13 shoreline report, as I understand it, your object
14 was to at least in part to find maps that pre-date
15 1907, correct?

16 DR. CIZEK: That's correct.

17 MR. PAUL: And the dates of the maps
18 that you did locate are found at page 5 of your
19 report, correct?

20 DR. CIZEK: I would have to look at
21 the report to confirm the page number. Yes, it is
22 page 5, table 1.

23 MR. PAUL: And you brought it up
24 helpfully, and I appreciate that. I can zoom in,
25 if you wish. So the maps that we see here, in

1 your table 1, are based upon photographs taken in
2 the mid 1950s; is that correct?

3 DR. CIZEK: Well, there is a range.
4 It ranges from photographs taken from 1953 to
5 1969. Those were the dates I was given by Natural
6 Resources Canada.

7 MR. PAUL: Let me understand that
8 then. The Warren Landing map, you say they are
9 photographs taken in 1955; correct?

10 DR. CIZEK: Yes, that's right,
11 photographs, it was produced in 1969.

12 MR. PAUL: Right. And then for
13 Playgreen Lake, the aerial photographs were
14 between '53 and '55, correct?

15 DR. CIZEK: That's right.

16 MR. PAUL: And the same would go for
17 Limestone Bay?

18 DR. CIZEK: That's right.

19 MR. PAUL: William Lake?

20 DR. CIZEK: Yep.

21 MR. PAUL: Eagle Island is 1953,
22 correct?

23 DR. CIZEK: That's right.

24 MR. PAUL: And Howell Point is 1953,
25 correct?

1 DR. CIZEK: That's right.

2 MR. PAUL: I am advised that Lake
3 Winnipeg Regulation began construction in 1972.
4 Are you able to speak to that either way? And if
5 you don't know, that's fine.

6 DR. CIZEK: I was told that it began
7 around 1970, but if it was 1972, then that's the
8 case.

9 MR. PAUL: And the Commissioners will
10 have the evidence as to when the construction
11 started and when the Lake Winnipeg Regulation
12 started to operate. But assuming the number of
13 1972 to be correct, it is fair to say then that
14 the data that you are relying upon is based upon
15 aerial photographs that is roughly 20 years before
16 Lake Winnipeg Regulation, correct?

17 DR. CIZEK: Yes, it is based on aerial
18 photographs from 1953 to 1955, that were updated
19 with field surveys in 1959 and 1962.

20 MR. PAUL: And would you agree with me
21 those field surveys would also pre-date Lake
22 Winnipeg Regulation?

23 DR. CIZEK: That was the idea of this
24 exercise, yes.

25 MR. PAUL: It is not clear from your

1 report if any of the data between the aerial
2 photographs and the field surveys changed,
3 correct?

4 DR. CIZEK: Whether the data between
5 the aerial photographs and the field surveys
6 changed?

7 MR. PAUL: You don't speak to that
8 either way in your report?

9 DR. CIZEK: It is my understanding,
10 from what I was told by Natural Resources Canada,
11 that the purpose of the field surveys was to
12 update the aerial photographs.

13 MR. PAUL: Okay. But at the very
14 least you are dealing with photographs that would
15 include possibly changes that occurred before Lake
16 Winnipeg Regulation, correct, by at least 10
17 years?

18 DR. CIZEK: Yes, it is possible.

19 MR. PAUL: It would be -- again, if
20 you go back to the beginning of your evidence, I
21 understand that you have done a lot of work with
22 maps and mapping images. And so it would be fair
23 to say that if you were to have a map from 1900,
24 for example, and compared it to today, you would
25 expect to see shoreline changes in those photos,

1 correct?

2 DR. CIZEK: It depends on the scale of
3 it, because actually I have used maps from 100
4 years ago. And again, it is all a matter of
5 accuracy of what you are comparing between then
6 and now. And unfortunately, the maps from a
7 hundred years ago are very, very limited in
8 accuracy. So whether or not you could detect
9 changes on Lake Winnipeg with those maps is an
10 open question.

11 MR. PAUL: If you were comparing, for
12 the sake of a hypothetical, maps that were of
13 equal quality between 1900 and 2014, you would
14 expect to see changes on any water body on the
15 shoreline?

16 DR. CIZEK: I couldn't tell you, I'm
17 not a hydrologist.

18 MR. PAUL: So if I were to suggest to
19 you that shoreline erosion is a natural phenomena,
20 you couldn't speak either way to that because
21 that's beyond your expertise?

22 DR. CIZEK: Absolutely.

23 MR. PAUL: Those are my questions.

24 Thank you.

25 THE CHAIRMAN: Thank you, Mr. Paul.

1 Do any of the participants have
2 questions, with the usual caveat, I don't think
3 that you can cross-examine your own witness.

4 MR. WHELAN: I wanted to clarify
5 something on the report.

6 THE CHAIRMAN: You can do that at the
7 end, after the panelists have asked questions.
8 Ms. Suek?

9 MS. SUEK: Yes, I do. Based on your
10 questions and answers, you certainly demonstrated
11 that there have been shoreline changes. I guess
12 what you can't say, correct me if I'm wrong, is
13 that they are based on Lake Winnipeg Regulation
14 and Manitoba Hydro's actions? This is no
15 correlation between those two that you can state
16 particularly? Is that true? Is that so?

17 DR. CIZEK: I am only identifying the
18 changes that took place based on my best
19 estimates, I can't speak to the cause of the
20 changes.

21 MS. SUEK: Right, exactly. I was just
22 clarifying that. And certainly there are changes
23 that you have identified.

24 When you were talking about loss of
25 land, I thought I heard you say that part of the

1 calculation of the loss of lands was, the 2-Mile
2 Channel was identified as part of the calculation
3 of loss because, I guess, the 2-Mile Channel would
4 have resulted in some land loss, and that was part
5 of the calculations of land loss? Is that
6 correct, did I hear you say that?

7 DR. CIZEK: Yes, that's included. We
8 could exclude it if you wanted, but here it is for
9 a comparison. So if we look at --

10 MS. SUEK: And what number would --

11 DR. CIZEK: Number 32.

12 MS. SUEK: Yes, that's it there.

13 DR. CIZEK: This gives you an idea of
14 what proportion.

15 MS. SUEK: Biggest loss of acreage
16 right there in the channel.

17 DR. CIZEK: So number 32 is
18 358.8 acres, so the actual channel might be half
19 of that, so maybe 170 acres could be excluded from
20 the total.

21 MS. SUEK: Right. And the amounts
22 that you compared in your comparisons, sometimes
23 it was July, August, now, there would be more
24 water -- you did compare months one year with the
25 same month another year. So at some times there

1 would be more water, because in the spring, early
2 summer there just is more water, right? But you
3 did compare one year to the next in the same
4 months, so that was -- I just wondered if there
5 was some reason for the choice of those particular
6 months that you compared?

7 DR. CIZEK: Specifically, I didn't
8 compare, all I compared was before and after --

9 MS. SUEK: Right.

10 DR. CIZEK: -- based on the satellite
11 imagery that was available. I didn't compare a
12 month in one year compared to a month in another
13 year, nor did I compare the water cover to a water
14 elevation in one year to another year, as the
15 gentleman representing Manitoba Hydro had started
16 to do. All of that is possible as well.

17 MS. SUEK: Right, but you did seem to
18 compare the same month one year to the next, to
19 the next comparator?

20 DR. CIZEK: I attempted to do a before
21 and after comparison, again based on whatever
22 satellite imagery was available. And sometimes
23 the satellite imagery was very close to the peak
24 water level where the community had identified
25 flooding or evacuation, and sometimes it wasn't as

1 close to the peak water level as I had wanted it
2 to be. So it is based on what is available and
3 when -- of course, since some of this is related
4 to rainfall, and the days where there was extreme
5 flooding, it would have been raining, it would
6 mean that the sky was covered with very thick
7 clouds and the imagery was not available.

8 MS. SUEK: So the choice of month was
9 more on what data was available for that year?

10 DR. CIZEK: The choice of the specific
11 date of the image was based on what is available
12 in the archive.

13 MS. SUEK: Thank you. That's my
14 questions.

15 THE CHAIRMAN: Mr. Harden?

16 MR. HARDEN: Just a couple of
17 questions. On your second report, is your method
18 capable of distinguishing between, distinguishing
19 the depth of the water on the land, does it matter
20 whether it is a few inches or a few feet?

21 DR. CIZEK: No, it does not.

22 MR. HARDEN: Okay. Did you do any,
23 say ground truthing? I mean, there is three
24 possible sources of the water. There is
25 precipitation lying on the land due to slow

1 drainage, there is overland flow due to flooding
2 on the Fisher River, and there is a possibility of
3 water backing up from Lake Winnipeg. On that
4 third possibility, do you compare any other trends
5 with similar levels on Lake Winnipeg, other than
6 the dates that were provided? So Lake Winnipeg is
7 at 715 feet, then if the water on the land was due
8 to the Lake Winnipeg level, wouldn't it be similar
9 for all events when Lake Winnipeg is at 715, and
10 did you do any control for that?

11 DR. CIZEK: No, I did not. I mean,
12 all of those things that you describe would be
13 possible with further research. And the most
14 specific one is the need for some ground truthing.
15 It is my understanding that there may be quite a
16 bit of photography, whether it is aerial oblique,
17 people taking pictures out of airplanes or
18 helicopters, or on the ground. Peguis may have
19 some videos they took to ground truth on those
20 dates and relate it to the satellite images based
21 on those photographs.

22 Part of the problem I personally had
23 in doing this was a lack of familiarity with that
24 particular landscape. But based on photographs
25 that I've seen, is that a large part of these

1 agricultural and wetland landscapes are just
2 covered with sheets of relatively shallow water.
3 All of that could be done by combining it with
4 this kind of field work, and what was done in the
5 past.

6 MR. HARDEN: Okay. And just for your
7 information, the data that water survey collects
8 for the Fisher River near Dallas is basically
9 level data that they translate to flows using a
10 rating curve, and truthing that rating curve
11 through metering several times a year to ensure
12 that. The levels aren't directly published, at
13 least they weren't in my day, but the flows are.
14 If you ask them they can give you the levels.

15 DR. CIZEK: All right.

16 THE CHAIRMAN: Thank you. I have no
17 additional questions. Mr. Whelan, do you wish to
18 clarify a matter?

19 MR. WHELAN: Good afternoon, my name
20 is Jared Whelan, I'm working for Peguis First
21 Nation. I wanted to clarify a point that the
22 proponent, Manitoba Hydro, has brought up, and the
23 Commissioners asked about. And that is the dates
24 of the satellite imagery that you used, Dr. Cizek,
25 except for case number 6, don't actually match the

1 dates of the high water at Matheson Island, do
2 they?

3 DR. CIZEK: The dates are after.

4 MR. WHELAN: And part of your analysis
5 was limited by the dates that you could find cloud
6 free satellite data?

7 DR. CIZEK: Yes, it was.

8 MR. WHELAN: And to refer to the
9 question by Commissioner Harden, we were unable to
10 locate the flow data from the Dallas station,
11 which is not an actual elevation gauge, as I
12 understand it, it is a flow gauge. You know
13 better than I how to calculate the elevation, so
14 Peguis First Nation did not use that data, it used
15 the information publicly available from
16 Environment Canada for the gauges at Matheson.

17 THE CHAIRMAN: Thank you, Mr. Whelan.
18 Thank you, Dr. Cizek, thank you for your time
19 today and the preparation of the papers that were
20 presented today as evidence in these proceedings.

21 Madam secretary, you have documents to
22 register?

23 MS. JOHNSON: Yes, I do. SAG number 1
24 is Sagkeeng's pre-filing on February 24th. Number
25 2 are the map packages that they presented this

1 morning. PFN number 5 is Dr. Cizek's paper on
2 shoreline change. Number 6 is his paper on the
3 Fisher River area. Number 7 is his presentation
4 on the north end of Lake Winnipeg. And number 8
5 is his paper, or his presentation on the Fisher
6 River area. And MH number 11 is the undertaking
7 number 1, which Manitoba Hydro provided today.

8 (EXHIBIT SAG 1: Sagkeeng's
9 pre-filing, February 24th)

10 (EXHIBIT SAG 2: Map packages)

11 (EXHIBIT PFN 5: Dr. Cizek's paper on
12 shoreline change)

13 (EXHIBIT PFN 6: Dr. Cizek's paper on
14 Fisher River area)

15 (EXHIBIT PFN 7: Dr. Cizek's
16 presentation on north end of Lake
17 Winnipeg)

18 (EXHIBIT PFN 8: Dr. Cizek's
19 presentation on Fisher River area)

20 (EXHIBIT MH 11: Undertaking 1
21 provided by Manitoba Hydro)

22 THE CHAIRMAN: Thank you. That brings
23 today's proceedings to a conclusion, unless there
24 are any other matters that need to be dealt with.
25 We will resume tomorrow morning here in this room

1 at 9:30 when we will hear from the Keewatinook
2 Fishers. Tomorrow afternoon is the Manitoba Metis
3 Federation. So see you tomorrow morning.

4 (Adjourned at 3:00 p.m.)

5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

OFFICIAL EXAMINER'S CERTIFICATE

Cecelia Reid and Debra Kot, duly appointed
Official Examiners in the Province of Manitoba, do
hereby certify the foregoing pages are a true and
correct transcript of my Stenotype notes as taken
by us at the time and place hereinbefore stated to
the best of our skill and ability.

Cecelia Reid
Official Examiner, Q.B.

Debra Kot
Official Examiner Q.B.

This document was created with Win2PDF available at <http://www.win2pdf.com>.
The unregistered version of Win2PDF is for evaluation or non-commercial use only.
This page will not be added after purchasing Win2PDF.