

MANITOBA CLEAN ENVIRONMENT COMMISSION

LAKE WINNIPEG REGULATION REVIEW
UNDER THE WATER POWER ACT

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Transcript of Proceedings
Held at Gimli Waterfront Centre
Gimli, Manitoba
THURSDAY, FEBRUARY 5, 2015
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APPEARANCES

CLEAN ENVIRONMENT COMMISSION

Terry Sargeant - Chairman
Edwin Yee - Commissioner
Neil Harden - Commissioner
Beverly Suek - Commissioner

Cathy Johnson - Commission Secretary
Joyce Mueller - Administrative Assistant
Bob Armstrong - Report writer
Melissa Hotaine - Community Liaison

CONSERVATION AND WATER STEWARDSHIP

Rob Matthews

MANITOBA HYDRO

Dale Hutchison

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1 WEDNESDAY, FEBRUARY 5, 2015

2 UPON COMMENCING AT 1:00 P.M.

3 THE CHAIRMAN: Good afternoon, ladies
4 and gentlemen. My name is Terry Sargeant,
5 although many of you in this room know me from
6 other places, including having grown up in this
7 town, I also still have a cottage in this town
8 where I stayed last night, while all of the others
9 were staying in the hotel. I was very
10 comfortable.

11 I am the chair of the Manitoba Clean
12 Environment Commission, as well as the chair of
13 this panel conducting this review. With me on the
14 panel to my right is Neil Harden, to my left Bev
15 Suek, and further to the left, Edwin Yee. In
16 addition to the panel we have some staff with us;
17 our Commission secretary, Cathy Johnson, our
18 Commission administrator, Joyce Mueller, our
19 technical staff, Bob Armstrong, report writer, and
20 Cece Reid our recorder.

21 First item of business, cell phones.
22 If you have a cell phone, please turn the ringer
23 off, and you can leave a buzzer on. If you get a
24 call and you need to take it, please step out of
25 the room.

1 Now, we are here today because in 2011
2 the Minister of Conservation and Water Stewardship
3 asked us, the Clean Environment Commission, to
4 hold public meetings to hear concerns about
5 Manitoba Hydro regulation of Lake Winnipeg. We
6 were asked to hold meetings in both the north and
7 south basins of the lake, and also in the City of
8 Winnipeg. This is our fourth week on the road.
9 We have been in Northern Manitoba, we were in the
10 central Interlake, and this week it is here, and
11 just on the other side. Next week we are further
12 up the east side of the lake, and then back up
13 north. And March, and for a couple of weeks into
14 April, we will be in the City of Winnipeg.

15 Now, we recognize that Lake Winnipeg
16 Regulation is a key piece of the Manitoba Hydro
17 system, but we have not been asked to look at any
18 other parts of the Manitoba Hydro system, simply
19 the regulation of Lake Winnipeg. We have
20 specifically been asked to look at the reasons why
21 Lake Winnipeg Regulation came into being in the
22 early 1970s. We have been asked to look at
23 whether or not Lake Winnipeg Regulation has
24 succeeded or failed in meeting those goals. And
25 also we have been asked to look at the effects and

1 impacts of Lake Winnipeg Regulation since it went
2 into full operation in 1976.

3 We try in our community meetings to be
4 as informal as possible to encourage as many of
5 you as wish to share your experiences to come
6 forward. Our hearings are recorded. This is
7 required by the Environment Act. A verbatim
8 transcript of what is said each day will be
9 produced within two or three days and posted on
10 our website.

11 Anyone who is present may make a
12 presentation. We ask that if you do come forward
13 and make a presentation, you state your name, tell
14 us how Lake Winnipeg Regulation may have impacted
15 you, how it may have impacted your community. And
16 we would like to hear, if you have any views on
17 whether the project has been good for the province
18 as a whole. And we also would like to hear what
19 decisions you think the panel should reach, and
20 then any other information that you think is
21 important.

22 Typically, we limit the oral
23 presentations to about 15 minutes. However, we
24 found in the rural communities that often people
25 will come forward and speak for four or five

1 minutes, and then somebody else will speak, and
2 then the first person will come back and add
3 something, and we have no problem at all with
4 that. We also, if somebody indicates ahead of
5 time that they would like to speak a bit longer
6 than 15 minutes, as has been the case today, we
7 allow that as well.

8 Finally, there are options to oral
9 presentations. If you are not prepared to make
10 one today, or if you don't like to speak in
11 public, we do accept written submissions. A
12 written submission need not be any more involved
13 than a letter or an email. You can find addresses
14 to send them on our website, which is
15 cecmanitoba.ca. Written submissions carry the
16 same weight as any oral presentation or any
17 evidence that we hear. The panel members read all
18 of the written submissions, and they become as
19 much a part of the record as any other evidence
20 presented.

21 Normally, we have had Manitoba Hydro
22 at this time make a brief presentation describing
23 just what Lake Winnipeg Regulation is all about,
24 but the person who does that is missing in action.
25 We expected him to be here by now. He is not, so

1 we will carry on. When he does show up, he can
2 put up his panels and we may have him make the
3 presentation or we may just leave the panels and
4 you can look at them and talk with him during any
5 breaks we may have.

6 So I will now turn to the
7 presentations from people in the room. We have
8 had two people indicate ahead of time that they
9 wish to speak this afternoon, so we will take
10 those two first, and then following them I will
11 open it up to anybody else in the room who wants
12 to make a presentation, wants to ask a question,
13 wants to throw in a bit of advice, whatever.

14 So first on my list is Councillor
15 Thora Palson. Just before you start, if you are
16 asking questions or making a statement or, you
17 know, you can speak from your chair later on. We
18 do need to have you use a mic, though, so it does
19 get recorded. So if you want to say anything,
20 just wait until we get the mic to you. Right now
21 it is in front of you, Ms. Palson. You can
22 proceed when ready.

23 MS. PALSON: Good afternoon. My name
24 is Thora Palson, councillor here in Gimli. I'm
25 speaking today to represent the Rural Municipality

1 of Gimli.

2 We understand that Lake Winnipeg is
3 the key asset to the ongoing operations and
4 success of Manitoba Hydro. Their corporate
5 responsibility is to recognize that this is a
6 natural resource that belongs to all of us. Many
7 economies rely on Lake Winnipeg, including
8 personal and public investments, livelihoods. Our
9 lake is a unique eco-system.

10 Here in Gimli, being a community on
11 the shores of Lake Winnipeg, we see our shoreline
12 eroding at an alarming rate. We see loss of
13 personal property, public property, wildlife
14 habitat, and a detrimental change to the lake's
15 water quality. This affects our property values,
16 our economy and our surroundings. We believe that
17 by Manitoba Hydro continuing to maintain high lake
18 levels, it can not allow our lake to perform its
19 natural fluctuation and filtration, and therefore,
20 has become a direct cause of loss of property,
21 economy and habitat.

22 It is apparent that Manitoba Hydro
23 continues to increase profit margins without
24 regard to waterfront property owners, businesses
25 that rely on tourism revenue, fishers who depend

1 on the healthy lake for their livelihood,
2 municipalities that must protect public assets and
3 the wildlife that is losing its habitat.

4 Many communities and citizens around
5 Lake Winnipeg, including the RM of Gimli, have
6 petitioned the Province of Manitoba to reduce the
7 water levels as set by the Lake Winnipeg
8 Regulation. Our hope is that by lowering water
9 levels shoreline erosion along the shores of the
10 south basin of Lake Winnipeg can be minimized, and
11 the health of the lake can be better maintained by
12 its natural means.

13 It is our understanding that Manitoba
14 Hydro has indicated that this is not a reasonable
15 solution. Reducing lake levels would cause the
16 corporation to lose millions of dollars in lost
17 energy production, with little or no impact on
18 erosion and the health of Lake Winnipeg. The RM
19 of Gimli strongly disagrees with this assumption.
20 We are witnessing with our own eyes erosion of
21 shoreline, loss of habitat and the changing health
22 of our lake.

23 Scientific research is not the only
24 measure that tells us what is happening in our
25 backyard. Long term personal observations are no

1 less a measure of the problems that our
2 municipality is facing. We can see how the
3 shoreline has changed in our life time. We can
4 see the natural habitat that's been affected. And
5 we see the change in the lake's water quality.

6 I do believe that the citizens of
7 Manitoba are fortunate to have a Crown corporation
8 providing a natural energy resource. I know that
9 Manitoba Hydro makes great efforts to give back to
10 the people of Manitoba providing sponsorships,
11 subsidizing First Nations communities affected by
12 land changes, and its revenue has contributed to
13 the Provincial coffers to everyone's benefit.

14 My questions are; why is Manitoba
15 Hydro not compensating property owners, businesses
16 and municipalities that are losing assets and
17 habitat from erosion due to high lake levels; why
18 is Manitoba Hydro not financially assisting in
19 protecting assets? How can Manitoba Hydro justify
20 continuing this course of operation when it comes
21 at the expense of people, property and wildlife?
22 And finally, the Government of Manitoba's acts and
23 regulations set the rules for sustainable
24 development of Natural Resources. Why do we as
25 citizens of Manitoba feel that Manitoba Hydro is

1 not adhering to the provisions for sustainable
2 development as set by the province? Thank you.

3 THE CHAIRMAN: Thank you, Ms. Palson.
4 Any questions? Thank you. Next on our list
5 Nelson Gerrard.

6 MR. NELSON GERRARD: Good afternoon.
7 Am I speaking into the mic here, is that better?

8 THE CHAIRMAN: It is.

9 MR. NELSON GERRARD: In looking back
10 over the last 30 years to prepare this
11 presentation, I found that I had an awful lot to
12 say. And last night when I timed my presentation
13 I was well over an hour. So to cut it back to 25
14 minutes I've had to do some cutting and slashing,
15 and I have dispensed with my audio visual
16 presentation, or component. But to stick to my 25
17 minutes I'm going to have to dive right in here.

18 My name is Nelson Gerrard and I have
19 owned lake front property at Hnausa since 1985.
20 Both my home acreage at Hnausa and my farm land at
21 Riverton, are water front properties. I live with
22 Lake Winnipeg on a daily basis, and I know it
23 intimately. Both of my properties are negatively
24 affected by chronic high water.

25 Lake Winnipeg is our very own prairie

1 ocean, a virtual jewel in Manitoba's crown. It is
2 truly a multifaceted resource in every sense. One
3 of Manitoba's greatest assets, environmentally,
4 historically, esthetically and economically. And
5 we all share responsibility for its stewardship.
6 That's why I have taken time to participate in
7 this hearing, despite obvious misgivings that
8 decisions may have already been made.

9 There is so much that can be said on
10 the issue of Lake Winnipeg Regulation that it is
11 hard to be brief. If I had only a minute or two
12 to communicate what is most important, however, I
13 would summarize in the following eight points.

14 1, What we are facing is a very
15 serious problem, and it is not a problem of public
16 perception. It is an environmental problem with
17 human rights implications.

18 2, Despite an often misleading
19 narrative developed to legitimize the status quo,
20 a very different truth is evident in the wisdom of
21 those that know the lake. Excessively high water
22 levels have become a destructive new norm, and
23 Manitoba Hydro is insufficiently responsive in
24 mitigating high water.

25 3, Current regulation practices

1 disregard important site specific conditions on
2 the vulnerable and heavily populated south basin.

3 4, Before a permanent licence is
4 granted, an impartial environmental impact study
5 is needed to establish the actual effects of
6 regulation so that problems can be dealt with
7 effectively.

8 The erosion advisory group study done
9 in 2000, thought by some to be such an
10 environmental review, in fact expressly ruled out
11 any environmental assessment.

12 5, The terms of the licence need to be
13 reviewed and tightened. No profit driven
14 corporation with vested interests should be relied
15 on to self police.

16 6, Existing infrastructure enables
17 Manitoba Hydro to increase outflow by 50 per cent.
18 So prudent regulation does have tremendous
19 potential to solve high water problems in all but
20 the most extreme cases.

21 With the ability to prevent flooding,
22 comes the moral and legal responsibility to do so
23 to the full extent possible.

24 7, 21st century technology needs to be
25 applied to improve efficiency at problematic sites

1 such as Jenpeg, the only station affected by Lake
2 Winnipeg water levels.

3 8, This is not a choice between Hydro
4 profitability or loss. It is a choice between
5 responsible stewardship and environmental neglect.

6 If any doubt exists as to the sad
7 state of Lake Winnipeg south basin, consider these
8 facts. Once characterized by beautiful beaches,
9 the degraded shorelines of Lake Winnipeg are now
10 under constant siege by damaging high water. A
11 chronic epidemic of shoreline erosion has spread
12 like cancer permanently destroying beaches and
13 eating away at properties. Barricades of rock
14 paid for by desperate homeowners have replaced
15 beaches. And the ragtag remnants of ill-conceived
16 eroding mud dykes built atop crumbling lakeshore,
17 recall a recent multi-million dollar engineering
18 boondoggle paid for by Manitoba taxpayers. It is
19 no longer uncommon for water levels to lap at
20 ground level and spill over the banks in locations
21 where flooding was historically unknown. Pent up
22 by regulation, the lake has become an unflushed
23 toilet blighted by algae. Sand beaches and sand
24 bars have long since disappeared due to sustained
25 high water and unrelenting waves that now dig away

1 at beaches of mud. No matter how much land it
2 consumes, the swollen lake continues to seek new
3 bounds. Potential residents look elsewhere to
4 invest their savings and build their dream homes.
5 Real estate values stagnate, properties go unsold
6 for years. The tax base for local municipalities
7 erodes along with the land. Once productive
8 farmland that sustained families for a century,
9 even with periodic natural flooding are now
10 swamps. Fragile wildlife habitat and wetlands
11 disappear under the waves. For many, and I
12 include myself, the dream of living on Lake
13 Winnipeg has been a recurrent nightmare.

14 The effects of Lake Winnipeg
15 Regulation were spelled out when plans for this
16 project were first released to the public in 1975,
17 40 years ago. The summary report of the Lake
18 Winnipeg, Churchill and Nelson River Study Board
19 clearly states the anticipated consequences,
20 acknowledging permanent changes to the lake's
21 water regime, galloping increases in erosion by as
22 much as 100 per cent, and the government's moral
23 responsibility to compensate those adversely
24 affected.

25 Just a couple of quotes from that

1 study. The operation of Lake Winnipeg Regulation
2 project will alter the water regime of the lake.
3 The long term average level is expected to be
4 raised by .65 feet from an elevation of 713.35, to
5 714. Note this would be an increase of just under
6 eight inches.

7 Furthermore, the adjustment of the
8 shore profile to a new higher level -- higher lake
9 level will result in a landward profile shift,
10 which is erosion, of between 5 and 75 feet. And
11 if we take the upper level that was used in the
12 models, the model giving the upper limit suggests
13 that the profile shift, that is erosion, would
14 occur over a period of 20 to 200 years, and
15 implies that 100 per cent of the land loss
16 associated with the profile shift would be
17 attributable to the project, i.e. Lake Winnipeg
18 Regulation.

19 It also states, "Private property
20 damages, lifestyle disruptions and income losses
21 resulting from displaced resources should be
22 compensated. To do otherwise would be to
23 distribute or transfer costs to a specific group
24 of Manitobans."

25 In other words, unless those affected

1 by the consequences of regulation are directly
2 compensated, they in fact are subsidizing the cost
3 of hydro production, while Manitoba Hydro claims
4 massive profits.

5 In contradiction to the summary
6 report, and the observations of lakeshore
7 residents, the official narrative is that water
8 levels are virtually unchanged, 713.4 before
9 regulation, 713.6 after regulation. On this basis
10 both Hydro and Manitoba government steadfastly
11 maintain that post regulation water levels on Lake
12 Winnipeg are benign with regard to erosion. These
13 statistics however conceal a disturbing new trend
14 that has resulted in a new norm since 1992 of
15 dramatically higher levels averaging some eight to
16 12 inches.

17 The precise extent of the increase and
18 the increased damage may be open to debate, but it
19 would be absurd to refute what eye witnesses have
20 been observing firsthand over many years. It is
21 important to note that erosion rates are also
22 transformed by an altered water regime. For
23 example, a relatively constant level of 713.5,
24 that is without high and low fluctuations, is more
25 destructive than a fluctuating average of 713.5,

1 that is with high and low fluctuations. The
2 reason is that sand beaches and sand bars, which
3 are created when water is low, are a shoreline's
4 greatest defence against occasional high water
5 damage. Sand beaches are permanently destroyed by
6 sustained high water. Erosion is therefore
7 greater under a regime of sustained high water.

8 The comparison of pre and posting
9 regulation levels is also highly problematic, in
10 that it is a comparison of apples and oranges. Of
11 course attempts have been made to reconcile
12 figures, but in the end official wind eliminated
13 pre-regulation levels varied between 712.9 and
14 713.4. A difference of six inches. These numbers
15 are therefore unreliable and potentially
16 misleading.

17 Another significant but
18 under-recognized factor that warrants
19 consideration in regulation policy is a phenomena
20 called seiche, which might be defined as slosh
21 effect. This is a frequent problem in the south
22 basin when strong northerly winds subside. In
23 this case, the west shoreline of Lake Winnipeg,
24 particularly between Arnes and Hecla Island can
25 sustain sudden water level increases of several

1 feet in a short time.

2 A dangerous new trend is behind the
3 destruction being witnessed, as acknowledged by
4 Manitoba Hydro's chief hydraulic engineer in 1998,
5 the new average of Lake Winnipeg water levels from
6 '92 to '98 was approximately eight inches above
7 the long term norm. Since that time, lake levels
8 have remained excessively high, so the new norm
9 over the last 20 years or so is now far above the
10 acknowledged figure of 713.6.

11 That a wet cycle is responsible for
12 the sustained high water often exceeding the 715
13 mark has been Manitoba Hydro's position since the
14 1980s, along with the claims that there is nothing
15 that they can do about it. The fact is it is
16 their policy to avoid spilling water until levels
17 exceed the 715 mark. In 1996, for example,
18 Manitoba Hydro refused to spill high water
19 throughout the summer despite the severe damages
20 and direct appeals from the public. The disaster
21 that followed in the spring and summer of 1997 is
22 a matter of record. In light of that fiasco and
23 the flooding imminent again in 1998, it would have
24 seemed reasonable to expect that Manitoba Hydro
25 would use maximum discharge to get the lake down

1 to safer levels. But on August 1, 1997, after
2 just three months, Manitoba Hydro reverted to its
3 policy of retaining water by closing the spillway
4 at Jenpeg. Their reasoning was that levels had
5 dropped to 715, so they were no longer required to
6 spill water. The result of that decision was yet
7 another debacle in the south basin.

8 This practice of hoarding water as
9 inventory has resulted in extreme long term water
10 levels in excess of 715 wind eliminated, on nine
11 occasions between 1979 and 2013, six of these
12 occasions during just eight years between 2005 and
13 2013. I can't help noticing that 2014 is not
14 included on this list, despite the fact that
15 flooding was imminent throughout the summer and
16 fall of 2014, even on properties such as mine
17 which at 720, 722, has never been flood prone. It
18 was only by a miracle that we escaped this crisis
19 without a fall storm.

20 Such failure to take reasonable
21 precautions is not unlike a driver approaching an
22 intersection at high speed. Whether he totally
23 disregards the stop sign before running it, or
24 possibly applies the brakes just a little, he
25 clearly poses an unreasonable risk to others. In

1 law, the definition of negligence is conduct that
2 falls below the standards of behaviour established
3 by law for the protection of others, against
4 unreasonable risk of harm. A person has acted
5 negligently if he or she has departed from the
6 conduct expected of a reasonably prudent person
7 acting under similar circumstances. It would seem
8 reasonable to expect that a Crown corporation
9 empowered with the means to avert harm, also has
10 the obligation, moral and legal, to exercise those
11 means to the full extent, not just a little too
12 late.

13 A disturbing red flag in the official
14 narrative around regulation has been the use of
15 red herrings to cloud the issue. Perhaps the
16 clearest example is to pas off isostatic rebound
17 as a significant factor in high water. Since the
18 release or retention of water at Jenpeg is in fact
19 a deliberate decision made by Manitoba Hydro.
20 Isostatic rebound really has nothing to do with
21 water levels. What then is the intent of Manitoba
22 Hydro in making it seem so?

23 For decades now, government has kept
24 lock step with Manitoba Hydro. Government
25 personnel come and go, and because the technical

1 details of regulation seem complex, it has become
2 standard practice to defer to Manitoba Hydro on
3 issues around Lake Winnipeg Regulation. In this
4 day and age of greater transparency and
5 accountability, however, it has become evident
6 that errors in judgment are not uncommon, even at
7 high levels. As case after case in the media has
8 shown, the need for objective oversight is
9 becoming increasingly clear. The striking recent
10 example is Premier Selinger's apology to the
11 Pimicikamak Cree First Nation, acknowledging for
12 the first time "the harms that have been done
13 through Hydro development." It was no doubt
14 difficult for Premier Selinger to concede error,
15 even though it was not his fault, and it was
16 heartening to witness this new candor and shift
17 toward accountability. It was no doubt even more
18 difficult, however, for the people of Cross Lake
19 to wrest this admission from the Government. To
20 paraphrase the words of a band spokesman, this
21 apology came as cold comfort after 37 years of
22 repeated denial and dismissal by both Manitoba
23 Hydro and successive Manitoba Governments.

24 The true impact of Lake Winnipeg
25 Regulation, so painfully obvious that we are

1 reminded of the Emperor's new clothes, will also
2 eventually become a matter of record. Whether
3 through the government's own decision to take
4 things in hand, or through litigation or
5 investigative journalism. The admission of error
6 and harms done through Hydro development will then
7 also be shown to apply to the people of the south
8 basin of Lake Winnipeg. Though site specifics
9 differ between north and south, the same principle
10 applies.

11 It is not too late for government to
12 intercede and get on the right side of history.
13 Hard questions must be asked, however, and an
14 impartial environmental impact study is needed to
15 sort out the facts.

16 Nor should Government accept that the
17 choice is between Manitoba Hydro's continuing on
18 its present course, or financial ruin and brown
19 outs. Lake Winnipeg Regulation was designed to
20 operate over a four-foot range of water levels,
21 and if for some reason due to design problems,
22 extreme high water is required to keep Jenpeg
23 operating, new technology should be used to make
24 Jenpeg more efficient.

25 For example, if the forebay at Jenpeg

1 was enclosed, which is much more doable than
2 dyking the entire south basin, water elevation at
3 intake could be maintained at any level by
4 electric pumping stations. This would make Jenpeg
5 independent of Lake Winnipeg water levels.
6 Jenpeg, which is a minor facility, is the only
7 generating station that relies on high water on
8 Lake Winnipeg. Since all other stations are
9 downstream at much lower elevations, they are
10 unaffected whether Lake Winnipeg stands at 715 or
11 711.

12 One badly needed change to the licence
13 is a reduction in the level at which mandatory
14 water release takes effect, at the very least to
15 714. As Manitoba Hydro points out, this does not
16 mean that water levels would never rise above 714,
17 but it would curtail the number of times that the
18 715 benchmark is exceeded. It would mean that
19 Manitoba Hydro would be required to start applying
20 the brakes well before running the stop sign.
21 With due regard for the effects of releases on
22 communities downstream, it would also be in their
23 best interest that water is spilled gradually and
24 over time before crisis levels are reached.

25 In conclusion, it is in the best

1 interests of all that the terms of this licence
2 are carefully reviewed and revised to achieve a
3 much needed change and better outcomes.

4 Thank you.

5 THE CHAIRMAN: Thank you, Mr. Gerrard.
6 That didn't even take 20 minutes, you had five
7 minutes left. Just a couple of -- can you provide
8 us with an electronic copy of your presentation?

9 MR. NELSON GERRARD: Yes, I have done
10 that.

11 THE CHAIRMAN: You have already.
12 Thank you very much.

13 I would like to thank you, you have
14 obviously put a lot of work into this presentation
15 and we appreciate that. Just -- you raised a
16 number of questions, but one I would like to
17 pursue a little bit right now, and it was almost
18 at the end of your presentation, you stated that
19 Jenpeg is the only station that requires water to
20 be at 715 to keep running?

21 MR. NELSON GERRARD: Well, it doesn't
22 require that water be at 715. It was built to
23 operate between 711 and 715, and it is just the
24 tendency of Hydro spokesmen to indicate that high
25 levels are better, or are required in some way,

1 that seems to indicate that there are problems.
2 Hydro engineers will tell you there are problems
3 with shallow channels, lack of head before the
4 water goes through the turbines, the horizontal
5 rushing turbines which are outdated, weeds and
6 ice, et cetera, that affect the flow, and so it is
7 better for them if they have higher water at
8 Jenpeg. But it is also a very minor station, and
9 maybe it should just be decommissioned as it was
10 never intended as a hydro generating station in
11 the first place.

12 THE CHAIRMAN: Now, I think you also
13 added to that that the stations, the big stations
14 on the lower Nelson don't require Lake Winnipeg to
15 be kept at 715. Is that what you said?

16 MR. NELSON GERRARD: They are at much
17 lower elevations, so the water coming through, it
18 is going to proceed down the river unaffected by,
19 you know, how much is in Lake Winnipeg.

20 THE CHAIRMAN: So is it your view that
21 they would operate as efficiently if, for example,
22 Lake Winnipeg was at 714 max?

23 MR. NELSON GERRARD: You know, I'm not
24 an engineer, but common logic would indicate that
25 to be the case. I don't know why that wouldn't be

1 the case.

2 THE CHAIRMAN: Okay. I don't know
3 either, but I can tell you that we will pursue
4 that. It is an interesting question.

5 MS. SUEK: You mentioned a study in
6 1975 that says that there were going to be
7 consequences from regulating Lake Winnipeg. Can
8 you -- I didn't get the source of that study.
9 Whose study was that?

10 MR. NELSON GERRARD: It was the
11 Manitoba Government commissioned a study going
12 into regulation that basically set out the plan
13 for regulation, and it was published in 1975.

14 MS. SUEK: It was a Manitoba
15 Government study then?

16 MR. NELSON GERRARD: Yes.

17 MS. SUEK: Okay. We probably have it
18 somewhere then.

19 THE CHAIRMAN: Actually, it was a
20 Canada, Manitoba and Manitoba Hydro. It is the
21 Churchill -- Lake Winnipeg/Churchill/Nelson River
22 Study Board summary report, which was produced in
23 1975. It is actually a very good document. It
24 does include a number of -- it is probably the
25 closest that anybody got to an environmental

1 assessment at that time. Environmental assessment
2 as a science was brand new, as a requirement for
3 licensing, I don't know that it existed anywhere
4 in Canada at that time. But that report actually
5 did a pretty good environmental assessment. And
6 you quoted a couple of their conclusions, the
7 setback or the loss of -- how did they put it --
8 was going to move inward about 75, landward shift
9 inward up to 75 feet, and there were a couple of
10 other things in there that -- it was a good report
11 and we to have copies of it.

12 MS. SUEK: That's something that I
13 would like to read.

14 THE CHAIRMAN: We will get you a copy.

15 MR. YEE: Thank you, Mr. Gerrard. I
16 just have one point for clarification. I believe
17 it was your third point you mentioned that the
18 Lake Winnipeg Regulation ignores site specific
19 conditions. I was wondering if you could just
20 elaborate on that a bit?

21 MR. NELSON GERRARD: Well, what I was
22 referring to was the particular situation of the
23 south basin as compared to the wind eliminated
24 average for the entire lake. And most of the
25 population is in the south basin, and I'm not

1 dismissing any on the north end, but this is the
2 area that is particularly affected, partially
3 because of geology, because of the nature of the
4 shore materials and the shallowness of the lake,
5 but also because prevailing northwesterly winds
6 keep the south end high most of the time, much
7 higher than the north end. And that has all kinds
8 of implications, apart from seiche, which I
9 mentioned is that slosh effect. But you get, an
10 actual reality in the south basin is very, very
11 different from what has been indicated by wind
12 eliminated levels. And that's the reality that
13 people actually have to live with it. So it is
14 problematic at best to ignore that fact and simply
15 stick to the theoretical, this is what the wind
16 eliminated level is. It just doesn't reflect
17 reality for most people.

18 And I can certainly testify to that,
19 you know, since 1985, and having had a lot of
20 communication and participation in meetings with
21 Government and Hydro at a high level, and it was
22 just -- it is just a point which is under --
23 misrepresented or under represented or under
24 appreciated, I guess. And somehow it needs to be
25 factored in because it is reality. And we don't

1 live in a, you know, in an ivory tower. We live
2 with the lake as it is, not as it is on paper.

3 MR. YEE: Thank you very much.

4 MR. NELSON GERRARD: If I could just
5 add one thing with regard to the summary report.
6 When the summary report was put on the table at a
7 high level meeting at the Manitoba Legislature,
8 and the chief hydraulic engineer was asked --
9 everybody turned to him when this was read out,
10 these predictions. And there was an awkward
11 silence when the chief hydraulic engineer had to
12 answer that question. And his answer was very
13 simple, it is an old study. But that's not really
14 an adequate answer. The study may be old, but the
15 science is really, you know, basically the same.
16 And the principles are basically the same. As I
17 said, you could quibble over the amount, you know,
18 specific details. But the general principle is,
19 you know, very obvious.

20 And the other point I made about the
21 new norm, it is particularly frightening. Because
22 if you live on Lake Winnipeg, you keep getting
23 this message, get used to it. This sort of came
24 through when the mud dykes that I referred to were
25 being thrown up in a panic, and tens of millions

1 of dollars were being thrown at that. They wanted
2 to build a five foot dyke through my front yard,
3 which has never been flooded, I mean, in history,
4 if there was water there two or three times in 100
5 years, I would be surprised. And now I was to
6 have a five foot dyke. The message sent out by
7 that is quite alarming and anybody with common
8 sense would flee the area and sell their property
9 and go build on West Hawk Lake, which seems to be
10 where a lot of people, Hydro officials have their
11 cottages. Thank you for your attention.

12 THE CHAIRMAN: Thank you, Mr. Gerrard.
13 I don't -- I'm not familiar with your reference to
14 the legislature, but in my view the study board
15 report from '75 is not old science or an old
16 report, it is not old, it is a very valuable
17 report still today. And some of the stuff we have
18 been reading in preparation for these hearings,
19 I've read studies going back into the late '50s,
20 and they are very good and they are very relevant
21 to what we are considering.

22 So thank you very much for the time
23 you put into preparing this presentation and for
24 coming out here today.

25 MR. NELSON GERRARD: I appreciate your

1 attention, thank you.

2 THE CHAIRMAN: Okay. Those are the
3 only two people who are registered in advance of
4 today's meeting. So is there anybody else in the
5 room who would like to make a presentation? If so
6 just wave your arms, stand up, come forward?
7 Anybody who has any questions or comments, do the
8 same. Well, we will go to Mr. Nelson.

9 MR. NELSON: I'm here now.

10 THE CHAIRMAN: Just state your name,
11 please, Baldur.

12 MR. NELSON: Baldur Nelson, Gimli,
13 Manitoba resident. Just a question. I was -- I
14 have a number of inquiries into your Commission as
15 to being forwarded to Manitoba Hydro. Those
16 questions -- or at least I was told -- would all
17 be available on February 2nd. While it is only
18 two days past, I wonder if that is still their
19 timetable?

20 THE CHAIRMAN: I believe so. And I
21 believe, I'm told that they are posted on Hydro's
22 website.

23 MR. NELSON: I haven't been notified
24 as such.

25 THE CHAIRMAN: Well, I think if you go

1 to Hydro's Lake Winnipeg Regulation website and
2 their responses to the questions, you may have to
3 go through it, because I don't know what order --

4 MS. JOHNSON: There is a link from our
5 website.

6 THE CHAIRMAN: There is also a link
7 from our website. I don't know if they will be
8 separated into your questions or whether yours
9 will be mixed up with hundreds of others.

10 MR. NELSON: It seems to me up to date
11 that they're grouped by topic. Generally your
12 lady, Carmen, e-mails me when there is a new batch
13 of answers, and I haven't been notified yet. She
14 has been quite diligent in the past of keeping me
15 aware of the goings on, to the point that she
16 offered me to sit and do a presentation today,
17 which I had to disregard. And I'm now on the
18 docket for March 18th, because I do not have
19 answers to those questions. Thank you.

20 THE CHAIRMAN: I think they have all
21 been done, and we actually have paper copies here.
22 I mean, you could look through it or you can go
23 online. But all of the questions that were
24 submitted have been answered by the deadline.

25 MR. NELSON: I will check on that.

1 Thank you.

2 THE CHAIRMAN: Okay. Thank you. Ross
3 Bailey down at this end.

4 MR. ROSS BAILEY: Yes, thank you. My
5 name is Ross Bailey. I'm actually registered to
6 present this evening. If it is more convenient
7 for the panel, I can do that this afternoon. It
8 makes no difference to me, but maybe you guys will
9 get home earlier if I do it this afternoon.

10 THE CHAIRMAN: Well, sounds good to
11 them. It doesn't make much difference to me
12 because I'm staying in Miklavik tonight, but
13 others are driving back to Winnipeg. So we
14 welcome that, Ross, if you are prepared to come
15 forward and do that.

16 MR. ROSS BAILEY: My name is Ross
17 Bailey, I grew up in Gimli. As a matter of fact,
18 more than 50 years ago I was Terry Sargeant's
19 mother's paper boy, but I don't think that puts me
20 in any better standing than anybody else.

21 I grew up in Gimli and I have owned
22 lakefront property since 1975, and I have lived on
23 the lakeshore since 1985. In addition, I sold
24 real estate in the Gimli area for 15 years. I was
25 a member of the Lake Winnipeg shoreline advisory

1 group, and I currently serve on the Province of
2 Manitoba shoreline erosion technical committee.

3 The data referred to in this
4 presentation was obtained from the Manitoba Hydro
5 website.

6 The purpose of my presentation is not
7 to report on the effects of lake levels on my
8 property, it is to lend awareness of a much
9 greater issue, a crime I believe against nature
10 and the environment, one that if we are not to
11 become part of the solution, we will all continue
12 to be part of the problem. The issue is the loss
13 of the beaches along the shores of Lake Winnipeg.

14 When Manitoba Hydro applied for a
15 temporary operating licence to regulate Lake
16 Winnipeg water levels, the licence was granted on
17 the basis of several assumptions, including, but
18 not limited to, operating range between 711 and
19 715 feet above sea level. And that was determined
20 to be in the best interests of all parties.

21 A 50 per cent increase in the outflow
22 would protect property owners from extreme high
23 water levels. A low end of 711 would still ensure
24 a consistent supply of water to generate
25 hydroelectricity. In theory, this proposal

1 appeared to satisfy most of the users and quite
2 obviously it satisfied the granters of the
3 licence. In practice, however, there are flaws in
4 this model, and an analysis of the data that has
5 been collected during the years of regulation now
6 allow us to modify the model to correct these
7 flaws.

8 At the upper level of 715 feet --
9 these are all above sea level, we just take that
10 as understood -- Manitoba Hydro has shown an
11 inability to control the lake level as evidenced
12 by the many occurrences of sustained lake levels
13 above 716 feet, and even 717 feet, including the
14 summer of 2014, this past summer. As an observer,
15 it was at 717 for quite a period of time.

16 The upper range data does somewhat
17 mirror the pre-regulation in that from 1930 to
18 1975, the 715 level was exceeded in nine different
19 years. And from 1975 to 2014, it was also
20 exceeded in nine different years. Where the model
21 tends to fail more greatly is at the lower end of
22 regulation. From 1975 to 2014, the lake fell
23 below 712 only four times, or ten per cent of the
24 time, and was never below 711. From 1930 until
25 1975, the lake fell below 712, 12 different years,

1 that's 12 compared to four after regulation, or 38
2 per cent of the time. And it actually fell below
3 711 six times, six years.

4 The greatest losers due to this
5 reduction in years of low water are the marshes
6 and the beaches surrounding the south basin of
7 Lake Winnipeg. Both require periods of low water
8 to rebuild their ecosystems. The beaches are not
9 a static entity, they are dynamic and, therefore,
10 ever changing. We are extremely fortunate to have
11 a huge volume of sand under the water along the
12 shorelines of Lake Winnipeg. This sand comes
13 ashore during the storm events, that's how it gets
14 there. When the storm events take place during
15 periods of high water, we have all witnessed the
16 subsequent erosion and the shoreline destruction.
17 This has always been a fact along the shoreline.
18 But in years past when a storm event took place
19 during periods of low water, 711, 712, the beaches
20 were rebuilt. This no longer happens, as
21 witnessed by the permanent loss of many of our
22 beaches. By my count, in the RM of Gimli the 22
23 or 23 miles of beach that used to exist, it was
24 continuous beach in the RM of Gimli except where
25 there are marshes, it has been reduced to less

1 than half by a combination of the effects of
2 erosion protection and the inability of the lake
3 to rebuild beaches during periods of low water.
4 I'm most familiar with RM of Gimli, but similar
5 results will be found everywhere in the south
6 basin of the lake.

7 The value of the beaches can not be
8 understated. They have been there for thousands
9 of years and they should not be lost forever due
10 to the misguided actions of two or three
11 generations of us.

12 Another factor that may or may not
13 have been originally contemplated in the
14 regulation model is climate. Weather events cause
15 the actions along the shoreline of Lake Winnipeg,
16 and current recognition of climate change and its
17 effect must be taken into consideration when
18 devising a new model. It is worth noting that of
19 the 12 maximum wind setup events, which I'm sure
20 you are familiar with, those are the events that
21 cause the most damage along the lake, of the 12
22 maximum ones, only one took place between 1945 and
23 1992, that was in 1956. And five have occurred
24 since 1992. I believe that was probably not
25 contemplated in this model, but we had five of the

1 12 biggest wind setups since 1992.

2 In my opinion, the solution to help
3 reduce the negative effects of regulation is to
4 reset the upper limit of the licence to 714 feet
5 above sea level. As the lower limit has never
6 been reached since regulation began, there should
7 be no threat to Manitoba Hydro's ability to
8 continue to generate a consistent supply of
9 electricity to the people of Manitoba. Even if
10 the 711 level is reached, I'm sure that a prudent
11 applicant would have built in a cushion to protect
12 their interests.

13 I do not know at what lake level the
14 ability to produce maximum electricity is
15 compromised. That figure has never been given by
16 Manitoba Hydro, it is obviously somewhere below
17 711 -- but it must be somewhere below 711. Once
18 the upper limit is reached, in this case 714, then
19 it is simply a matter of water in, water out, as
20 it is today. And one could expect a recurrence of
21 the past data but at a level one foot lower. So
22 take the last 30 or 40 or 50 years of data, or the
23 data since regulation, you could then assume that
24 the same things would occur but at a one foot
25 lower level. This would provide a cushion at the

1 high end to help mitigate erosion damage, and it
2 would provide more years of 711 to 712 levels to
3 help re-nourish the beaches and the marshes.

4 We must not squander this opportunity
5 to adjust the model of Lake Winnipeg Regulation to
6 best suit the needs of all Manitobans and preserve
7 a resource that should be continued to be enjoyed
8 by future generations long after all of us are
9 gone. Thank you.

10 THE CHAIRMAN: Thank you, Ross. You
11 mentioned climate change, and we've heard over the
12 last few weeks, and in our preparations over the
13 last few months, we have heard that there is a lot
14 more water coming into the lake than there was
15 before, through particularly the Winnipeg and
16 Assiniboine, later Red River. Well, actually, the
17 Red River from North Dakota as well. Is there --
18 I mean, I don't know, but could Hydro spill more
19 than they are spilling now and bring the lake
20 level down?

21 MR. ROSS BAILEY: To get to 714, you
22 can get to any level you want if you leave the
23 gates open until you get to that level.

24 THE CHAIRMAN: Well, there have been a
25 couple of periods in recent years where they have

1 had the gates open for about two years non-stop.

2 MR. ROSS BAILEY: Until they got down
3 to 715. Keep them open until they get to 714,
4 that's your new level and it is water in, water
5 out. A big part of the climate issue, if you are
6 getting into climate change, is there is more
7 violent weather, I think everyone around the globe
8 will agree, and the violent weather we get on Lake
9 Winnipeg are wind storms. And the wind storms
10 provide the two and three and three and a half
11 foot setups that lead to higher levels of 719, 720
12 at this end of the lake and cause the damage.
13 Five out of the 12 largest have been in the last
14 20 years.

15 THE CHAIRMAN: Thank you for that.
16 Anybody have any questions?

17 MR. HARDEN: Just one clarification
18 here. When you talking about formally with 22 to
19 25, was that kilometres or miles of beach?

20 MR. ROSS BAILEY: Miles, I'm an old
21 guy.

22 THE CHAIRMAN: Me too. I'm even older
23 than you, I know that. Thank you again, Ross.

24 Anybody else have anything they wish
25 to add? Yes, sir, come forward.

1 MR. HUNT: Hi there, my name is Laurie
2 Hunt, deputy mayor of the RM of St. Andrews.

3 Adding to a couple of things that
4 Mr. Bailey said in regards to Netley marsh. This
5 is where we have problems, in St. Andrews it
6 exceeds further than Lake Winnipeg into Netley
7 Creek area. It goes on to say that the wind setup
8 effects, the worst one probably we had was 2010,
9 October, which was election day in the Province of
10 Manitoba. The new Gimli Council at that time had
11 to be sworn in the next morning and do all kinds
12 of remediation. That night we had over a thousand
13 people evacuated along Netley Creek area due to
14 that wind setup.

15 The other thing is, Netley Marsh, as
16 it is now, is hardly there anymore. The centre
17 channel is probably four times as wide as it once
18 was. The west channel and Salamonia channel are
19 basically non-existent, if you go back and look at
20 the maps from 1976 onwards. So this is caused to
21 the seiche effect that was mentioned. The level
22 of Netley Creek that evening in October was 722,
23 because it overflowed the dykes that were built in
24 '05 and '06 from the province of 721.

25 I also sit on the board of Red River

1 Basin, so this has been documented also through
2 Netley Marsh, and we know it is a filter, you
3 know, from the Red River, we all know what comes
4 down river. There was a micro conference here for
5 Red River Basin put on in 2013, and the
6 gentleman's name was Robert Sanford, and he is an
7 expert now on weather changes, and I believe
8 himself and the Red River Basin will be submitting
9 a report to this also.

10 That's all I have, thank you.

11 THE CHAIRMAN: Thank you, Mr. Hunt, we
12 were in Selkirk yesterday, and we were in
13 Brokenhead and Grand Marais the day before, or
14 earlier this week, and we heard a lot about
15 Netley/Libau marsh in all of those communities.
16 And we have also heard from others about
17 Netley/Libau marsh, so we are pretty aware of the
18 problems there, and they are significant.

19 MR. HUNT: Thank you.

20 THE CHAIRMAN: Anybody else have --
21 yes, sir?

22 MR. LOWRY: Hi, my name is Gordon
23 Lowry, I live in the Village of Dunnottar. I have
24 been on the lake my entire life since 1952, in and
25 around Winnipeg Beach and Dunnottar at that time.

1 I just want to table something, and
2 I'm sure it has been discussed in other meetings,
3 but I just want to make sure it gets looked at.
4 It is more from, you know, the title of this group
5 is Clean Environment Commission hearings, so I'm
6 thinking more about the lake's health when I bring
7 this up. I think there should be something, and
8 you are going to put recommendations forth, and
9 I've heard different discussions on it, and I'm
10 talking about the causeway going over to Hecla.
11 There is a move afloat that it should be taken out
12 to improve -- not the outflows of the lake, I'm
13 not looking at, I'm looking at removing some of
14 the nitrogen in the lake to eliminate some of the
15 issues caused by that. And I believe this
16 committee should table that. And it may not be
17 Hydro's responsibility -- I'm not saying whose
18 responsibility it is to remove it, but it is
19 something that should be investigated once and for
20 all to see if that would affect the flushing of
21 our lake. Because Hydro claims, I believe in that
22 report, that the dams don't stop the flushing of
23 the lake. But it has been said that causeway may
24 slow it down at Hecla. Thank you.

25 THE CHAIRMAN: I'm not sure that we

1 have heard much about the Hecla causeway during
2 these hearings, but we have heard about those
3 specific concerns in previous hearings that we
4 have conducted. That is beyond the scope of our
5 responsibility. Our terms of reference don't come
6 anywhere near that. But the health of the water
7 in the lake is a matter of, well, it is a matter
8 of significant concern to all Manitobans. We have
9 commented on it in past reports, particularly on
10 reports about City of Winnipeg sewage treatment
11 and the nitrogen phosphorous issue -- and that
12 issue, and specific things like the causeway to
13 Hecla certainly need a lot further investigation,
14 but it is beyond the scope of this round of
15 hearings. But thanks for making the comment.

16 Anybody else wish to have a say? Yes,
17 sir, please come forward, or you can sit there and
18 we can take the mic there.

19 MR. MATECHUK: My name is Brent
20 Matechuk, I'm a flight engineer by training and a
21 commercial fishermen by preference. I have lived
22 on the lake now forever. And I appreciate what
23 everybody has been saying here about the high
24 water levels, but nobody has mentioned the
25 current.

1 The currents are set up by atmospheric
2 pressures because the basins are unequal size and
3 300 miles apart. So what you get is a
4 differential in the atmospherics, constantly,
5 between the south basin and the north basin.
6 Because of this you have a constant current going
7 back and forth through the Hecla channel. That
8 Hecla channel now is -- at one time you could walk
9 across from Black Island to the mainland on the
10 east side with no problem at all in the middle of
11 winter. But I challenge any of our committee in
12 front of me now to do it now. Because there is
13 virtually very little ice there because of the
14 currents. Nobody can go there with a snowmobile,
15 nobody can even dare to set foot on that channel
16 between Black and east side.

17 So what we have here now is let's do
18 some mathematics here for a minute. A cubic metre
19 of water weighs 2,200 pounds. It is about the
20 same size as your kitchen stove. Now, that water
21 can move from the north basin to the south basin
22 in less than 12 hours, raising the water level in
23 the south basin as much as eight feet. You don't
24 even need any wind, all you need is the
25 differential pressure between the north and south

1 basin. So the atmospheric have a lot to do with
2 what we have here, is shoreline erosion. The
3 shoreline is being eroded by the constant movement
4 of currents. The currents used to have a
5 mitigating factor, because the channel was a lot
6 wider prior to 1969. The channel used to be
7 7 miles wider on the west side of Hecla. But as
8 soon as the causeway went in, they provided no
9 outlet for that water. So what you have is what I
10 call a Venturi effect, the same thing as what you
11 would do if you put your finger over the end of a
12 garden hose. The water comes through the Hecla
13 channel there at such a rapid rate that -- and a
14 constant rate, it is not just a rapid rate, it is
15 constant rate, it moves back and forth constantly
16 with the changing in atmospheric.

17 In case you don't realize it, the
18 atmosphere weighs 14.7 pounds per square inch at
19 standard atmosphere. Standard atmosphere is a
20 figment of imagination because there is no such
21 thing in the real world, what happens is that it
22 changes constantly. So the differential pressure
23 between north and south basin causes this current
24 to erode constantly. And the more water you have
25 in the north basin, the more the current becomes a

1 problem. And that's why you are getting -- you
2 are not only getting the high water levels, you
3 are getting the constant action of the currents
4 eroding our sand beaches and our -- our sand
5 beaches and our swamp areas.

6 Now, swamp areas are what cleanses the
7 water, and so does the sand, but they have been
8 virtually eliminated because of that Hecla
9 causeway. The Hecla causeway, what it has done,
10 it used to mitigate the current coming through
11 that Hecla channel, because the current used to go
12 around the south basin, up the west side, past
13 Hecla on the west side and eliminate the total
14 effect of the current. But it is not happening
15 anymore because they blocked it off completely.
16 They should have built a bridge there in 1969, but
17 they didn't do it because of exponential costs, I
18 imagine. But they did that on Lake Manitoba and
19 it probably saved their bacon.

20 THE CHAIRMAN: Where did they do it on
21 Lake Manitoba?

22 MR. MATECHUK: Right at the narrows.

23 THE CHAIRMAN: Yes.

24 MR. MATECHUK: Let's see -- what we
25 need is a study of the current effect on Lake

1 Winnipeg in order to mitigate the pollution, the
2 algae blooms, and all of that, so Lake Winnipeg
3 has a chance to recover from this pollution that's
4 coming down the Red River and all of the other
5 rivers that connect into it.

6 You used to be able to do that, you
7 used to be able to drink water out of the south
8 basin, right out of the lake. As a matter of
9 fact, when I started fishing I was able to do
10 that. I wouldn't want to try it now.

11 So, I think that's what is missing
12 here, is comprehensive study on the effects of
13 current on Lake Winnipeg.

14 Pardon me while I pause and think for
15 a minute. I should have written this down but I
16 hate writing.

17 THE CHAIRMAN: That's okay.

18 MR. MATECHUK: Because of the high
19 water levels on the north basin, and if they go
20 through with this dam on the north basin, this
21 supposedly necessary dam that we are supposed to
22 be getting, which as far as I can see doesn't
23 benefit anybody in Manitoba, what is going to
24 happen is that it is going to increase the size of
25 the north basin, double -- or not -- I can't quote

1 to see exactly what will happen as far as the
2 currents are concerned, but I guarantee you they
3 will be a lot stronger if this new dam is built,
4 because there is going to be that much more area
5 for the air pressure, atmospherics, to work on the
6 north basin to move that water southward. And it
7 will all go through that Hecla channel, which by
8 all stretches of the imagination should have never
9 been sealed off with a causeway. Right now,
10 according to some of the people that I've talked
11 to, there is small mini islands being built in the
12 middle of the lake because all that extra soil
13 that's been washed away is starting to build up in
14 the middle of the south basin, because there is no
15 way for it to move towards shore, because of the
16 way the current comes around the south basin. I
17 wish you people had a map here so I could actually
18 point out to you what actually happens here.
19 Because it is a whole schematic of how a current
20 actually operates. And without a map, it is
21 really difficult to show it. But if you can use
22 your imagination putting your finger over the
23 garden hose, that's basically what that extra
24 channel has done.

25 Anyway, that's about all I have got to

1 say. I can't think of anymore right now.

2 THE CHAIRMAN: Thank you,
3 Mr. Matechuk. Thank you very much.

4 Yes, sir. You can just pass him the
5 mic.

6 MR. LOWRY: Back to my statement then,
7 so with what he articulated about the current
8 cause and the erosion, wouldn't the causeway come
9 under your authority?

10 THE CHAIRMAN: No. Again, it doesn't
11 come under our authority -- let me just finish --
12 unless it can be demonstrated that it is caused by
13 or related to Lake Winnipeg Regulation. What we
14 do do is that we will report on everything that we
15 have heard, even if it is outside of our terms of
16 reference. We will note in our report that we
17 heard this.

18 We typically make two kinds of
19 recommendations. We will make recommendations
20 that are clearly under our terms of reference and
21 clearly relate to the licence in question. But we
22 also make what we call non-licensing
23 recommendations. And in recent years the Minister
24 has tended to accept our non-licensing
25 recommendations, and some of them are quite

1 significant. And they are being implemented. So
2 it is possible, but I can't guarantee you today
3 that that will be the result of our deliberations,
4 but it is possible that we will make some general
5 kind of -- we will probably make some kind of
6 recommendation, non-licensing recommendation about
7 the whole state of Lake Winnipeg. And under that
8 we will know note that these issues have been
9 identified to us and should be further
10 investigated. And it is possible, without
11 guaranteeing, that the Hecla causeway will be
12 identified as something that needs or requires
13 further study. So, while it is not under our
14 terms of reference, we have heard you and we will
15 note that.

16 MR. MATECHUK: There is one statistic
17 that I neglected to mention. The water level on
18 Lake Winnipeg on the south basin can go up as much
19 as eight feet overnight, in 12 hours. To get that
20 amount of water out of the north basin into the
21 south basin requires a differential, a
22 differential pressure of only two or three pounds
23 in the atmospherics. 12 hours, so you can imagine
24 100,000 stoves going through the Hecla channel
25 weighing 2,200 pounds, coming through that channel

1 constantly for 12 hours. And then what happens is
2 that the water level stays here until that
3 atmospheric pressure dissipates, which could be as
4 much as three or four days. So what you have here
5 is, if you put Mount Everest in the middle of the
6 south basin, 2,200 pounds times several hundred
7 thousand cubic metres of water hitting it would
8 probably reduce it to an ant hill. So just bear
9 that in mind. Thank you.

10 THE CHAIRMAN: Thank you again.

11 Anybody else have something? Yes, Mr. Hunt?

12 MR. HUNT: I just have a couple of
13 questions. If the Minister requested this review
14 to be done in 2011, how come it has taken four
15 years to get this off the ground, I guess, and
16 will it take another four years to get the report
17 back from this?

18 THE CHAIRMAN: Well, to your final
19 question, no, it won't take another four years.
20 What happened was this was referred to us in 2011,
21 as I noted and you have just noted. We started,
22 we actually struck a different panel at that time,
23 we started work on this, and then Manitoba Hydro
24 applied for a licence for Bipole III, and they
25 asked that that have priority over Lake Winnipeg

1 Regulation. The Clean Environment Commission is a
2 very small operation, there are only three
3 full-time staff. The other people on the panel
4 with me are part-timers. We don't have any
5 expertise, you know, technical, scientific
6 expertise on permanent staff. We have to hire
7 them, depending on the project that we are looking
8 at. So we can only really do one major study at a
9 time.

10 And when Bipole III bumped Lake
11 Winnipeg Regulation, we finished Bipole III, and
12 we started turning our minds very briefly to Lake
13 Winnipeg Regulation again. Keeyask came along.
14 Again, Hydro asked that take priority over this.
15 So that's what happened.

16 So we started this in the fall of
17 2011. By late fall, I think it was November of
18 2011, we got Bipole III. That took us through
19 until early 2013, I think. Then we turned to
20 Keeyask, which we concluded in spring of 2014.
21 Then we turned to this last June or July, and here
22 we are. So that's what happened in those four
23 years.

24 MR. HUNT: Okay. Then I believe in
25 the paper it said that this licence will be good

1 until 2026?

2 THE CHAIRMAN: That's correct.

3 MR. HUNT: Then it will be required to
4 do the same hearings again?

5 THE CHAIRMAN: Well, there will be a
6 different -- the hearings I suspect will be of a
7 different nature. I can't predict the future,
8 obviously. But this licence, a Water Power Act
9 licence is good for 50 years. The start date for
10 this licence was 1976. Hydro operated, or has
11 operated under an interim licence since that time.
12 They've asked for a final licence. Actually,
13 under the Act, they are entitled to a final
14 licence almost without asking any questions. But
15 because the Minister knew that there was a lot of
16 concern around Lake Winnipeg and in the north
17 about this, rather than just give them the
18 automatic licence, he asked us to look into it and
19 conduct this review.

20 They will be required to apply for a
21 new licence to start in 2026. So they will
22 probably do that around about 2020, 2021. So five
23 or six years from now, Hydro will be back applying
24 for a licence, and one would presume that there
25 will be a similar review to this. I hope to be

1 retired by then.

2 MR. HUNT: Me too.

3 THE CHAIRMAN: Anybody else have any
4 comments? Questions? Mr. Gerrard?

5 MR. NELSON GERRARD: I just have one
6 short question. I was under the understanding
7 that the application for permanent licence
8 automatically triggered an environmental impact
9 study, or required an impact study. Is that not
10 the case?

11 THE CHAIRMAN: I don't believe so
12 under the Water Power Act. If it were under the
13 Environment Act, yes, but this isn't an
14 Environment Act licence, this is a Water Power Act
15 licence.

16 I would think given -- the Water Power
17 Act is quite old, it is probably safe to say that
18 it is old thinking that underlines it. I would
19 guess that when time comes that Hydro applies for
20 a new licence, that new thinking will apply and
21 they will be asked to do an environmental
22 assessment of some sort prior to a review of the
23 licence application.

24 MR. NELSON GERRARD: Thank you.

25 THE CHAIRMAN: Anyone else? Now

1 let's -- we will take a break for a few minutes.
2 Hydro has told us that they are going to be here
3 about 3:00. If they do show up, they can put up
4 their panels and we can have the introductory
5 session from Manitoba Hydro that explains how this
6 operation works, and that may generate some more
7 questions and comments. Let's take a break for
8 about ten minutes.

9 (Hearing recessed at 2:55 and
10 reconvened at 3:10)

11 THE CHAIRMAN: I think we will
12 reconvene. As you can see, Manitoba Hydro has
13 their panels up. Dale Hutchison is with Manitoba
14 Hydro and will make a presentation based on these
15 panels, and explaining a bit how Lake Winnipeg
16 Regulation operates and some of its effects.

17 Dale?

18 MR. HUTCHISON: Thank you, Terry.
19 Everyone can hear?

20 First off, I apologize for arriving a
21 little late. My bad. My last time in this room,
22 on or this floor, I had a really good time at a
23 wedding, so I'm sure today will be similar.

24 I have been working with Manitoba
25 Hydro for 15 years to understand our impacts on

1 the waterways and on the people that we share them
2 with. Today I will go through a presentation that
3 will cover the Manitoba Hydro system, Lake
4 Winnipeg and Lake Winnipeg Regulation.

5 So, to start off with, the Manitoba
6 Hydro system, a huge area from the west to the
7 Rocky Mountains, east to the shores of Lake
8 Superior, and down south into the Red River Valley
9 of the United States flows into Lake Winnipeg.
10 And the shape of this land, like a million square
11 kilometre bowl, is what makes hydroelectric
12 development possible on a large scale in Manitoba.

13 We have got 15 generating stations
14 that take advantage of the water flowing through
15 the province. These are shown on this map by the
16 blue dots. And the size of the dots, small,
17 medium and large, shows how much each generating
18 station can produce, how much electricity.

19 So we have got six small stations on
20 the Winnipeg River. On the Saskatchewan River we
21 have got a medium sized station at Grand Rapids.

22 Now, the Nelson River flows north of
23 Lake Winnipeg into Hudson Bay. We have got a
24 small generating station on the west branch of the
25 Nelson River. North of the Nelson is the

1 Churchill River. It also flows into Hudson Bay.
2 Now, rather than building generating stations on
3 this far northern river, instead its waters were
4 diverted into the Nelson through what is called
5 the Churchill River Diversion, and they are
6 diverted into Split Lake. Wuskwatim is the newest
7 generating station and it is along this Churchill
8 River Diversion route.

9 Now, the hydroelectric advantage of
10 Churchill River Diversion is that from Split Lake
11 downstream to the Hudson Bay, the Nelson has the
12 benefit of two rivers. And it is on this stretch
13 of river that we have got our largest generating
14 stations, as you can see by the large blue dots,
15 Kettle, Long Spruce and Limestone. These three
16 stations alone produce 70 per cent of electricity
17 in Manitoba. Keeyask is a medium sized station
18 and it is currently being built on this stretch of
19 river downstream of Split lake. To move the
20 electricity from these northern stations to the
21 south, there are two high voltage Bipole III lines
22 that run 1000 kilometres from Gillam to a
23 converter station near Winnipeg. There is also a
24 third Bipole III line that's currently being
25 constructed that you may have heard of. From the

1 converter station near Winnipeg, electricity is
2 sent over 100,000 kilometres of distribution lines
3 to homes and businesses throughout Manitoba.

4 We also produce electricity using
5 natural gas at generating stations in Selkirk and
6 Brandon. In an emergency, we can use coal to
7 produce electricity at the station in Brandon.
8 And we don't own them, but we purchase electricity
9 from two wind farms, one at St. Leon and one at
10 St. Joseph. You have probably seen the windmills
11 if you have been going south. So all together,
12 the Manitoba Hydro system uses water to produce
13 over 95 per cent of the electricity made.

14 Now I will talk about Lake Winnipeg.
15 This is the tenth largest freshwater lake in the
16 world. It's Manitoba's great lake. As you can
17 see, over a dozen rivers flow into the lake, yet
18 there is only one natural outflow, the Nelson
19 River. This makes it easy for the lake to flood.
20 The mouth of the Nelson is quite wide but it is
21 very shallow. So in the winter ice can block the
22 flow of water out of the lake which causes the
23 lake to flood. And historically flooding has
24 caused problems for people around the lake for a
25 long time, to the point where highways have been

1 closed, farmers have been unable to get their
2 crops in or out, and homes and cottages have been
3 damaged.

4 This next banner shows Winnipeg Free
5 Press headlines and photographs of recent flooding
6 events. Years like 1927, 1950, 1954, 1955, 1966,
7 1968, 1969, 1970. This recurrent flooding put a
8 lot of pressure on government to do something
9 about it. At the same time, the demand for
10 electricity was growing in the province. So in
11 1970, the Premier of Manitoba announced plans to
12 proceed with Lake Winnipeg Regulation for flood
13 control on Lake Winnipeg, and power production on
14 the Nelson River.

15 Before we could build Lake Winnipeg
16 Regulation, and actually I will call it LWR
17 because I will be saying it quite a few times,
18 before we could build LWR first we needed a
19 licence from the Province. This is similar to if
20 you are going to build a house, you get a building
21 permit first. This licence is called an interim
22 licence, and to get it we had to provide
23 information on what we were planning to build and
24 the effect it would have on water levels and
25 flows. In 1970, the Province granted us an

1 interim licence which gave us the approval to
2 build LWR, along with rules about how it could be
3 operated.

4 And there were three types of rules.
5 The first type were operating ranges for Lake
6 Winnipeg and some of the downstream lakes. For
7 instance, on Lake Winnipeg between elevations 711
8 and 715, Manitoba Hydro can decide how much water
9 to flow through Jenpeg in order to meet
10 electricity demands. Above elevation 715, we are
11 required to let as much water as possible out of
12 the lake, this is called maximum discharge. And
13 below elevation 711, the Minister of Conservation
14 and Water Stewardship tells us how much water to
15 let out of the lake.

16 The second type of rule was that we
17 had to have a minimum flow of water out of the
18 lake all of the time. And the third rule is that
19 we couldn't change the rate of flow of water at
20 Jenpeg too fast.

21 So, we agreed with these rules and
22 built LWR by 1976. So, LWR, what it involved was
23 building a second outflow out of the lake shown by
24 this squiggly line here, along with two other
25 channels shown by these other two squiggly lines.

1 These three channels allow more water to flow out
2 of Lake Winnipeg. Now, these channels alone would
3 drain the lake, so it was necessary to build a
4 control structure at Jenpeg on the west channel of
5 the Nelson River.

6 People have different ideas about how
7 LWR affects the water level on Lake Winnipeg.
8 Some people think that we keep the water level
9 higher all of the time, others think we keep it
10 lower. The Federal Government has been monitoring
11 water levels on Lake Winnipeg for 100 years. And
12 what this water level data shows us is that Lake
13 Winnipeg is behaving now just like it always did.
14 In the spring and summer, the lake level rises,
15 and through the fall and winter the lake level
16 falls. If there is a drought in the watershed,
17 the water level gets lower. If there is a flood,
18 the water level gets higher. However, since 1976
19 when LWR was built, there has been one very
20 noticeable change. And I am afraid I will have to
21 use a graph to show what that change is, because
22 it is really the only way to show changes in water
23 levels over time.

24 So this graph shows how LWR has
25 reduced flooding in Lake Winnipeg. One side of

1 the graph has water elevation above sea level, and
2 the bottom of the graph has the 40 years since
3 1977, the first full year that LWR was in
4 operation, up until today. The blue line is the
5 actual with LWR water elevation, and the red line
6 is what the water level would be if LWR did not
7 exist.

8 Now, you have probably noticed that
9 the last ten years or so have been very wet with a
10 lot of water flowing into the Lake Winnipeg and
11 down the Nelson River. What this graph shows is
12 that in flood years like 1997, you see it here,
13 2005, 2011 and 2014, the lake level would have
14 been two feet higher and the flooding would have
15 lasted much longer if LWR did not exist. So this
16 information is demonstrating that LWR is meeting
17 its goal of providing flood relief on Lake
18 Winnipeg.

19 Now, downstream of Lake Winnipeg is a
20 different matter. 20,000 people live along the
21 Nelson River. Land and water are extremely
22 important to their identity and livelihoods. All
23 Manitobans benefit by having reliable low cost
24 electricity, and people around Lake Winnipeg have
25 benefited by the flood relief provided by LWR.

1 However, people downstream have suffered, there
2 has been more water flow out of the lake during
3 the winter and during times of flood, and this
4 additional water has caused them impacts. In
5 natural conditions, lake levels and river flows
6 gradually decrease over winter. With LWR, water
7 flows through in the winter are higher, up to 50
8 per cent higher than they would have been without
9 LWR. This water causes impacts to the waterways,
10 like the ice conditions on the waterways which can
11 make travel more dangerous. Also, it negatively
12 affects aquatic animals like beaver, mink, muskrat
13 and otter.

14 During the summer months, any time the
15 elevation of Lake Winnipeg gets close to or above
16 elevation 715, Jenpeg goes to maximum discharge,
17 sending a surge of water down the Nelson River.
18 This causes water level fluctuations on the river
19 and on the lakes downstream.

20 Ultimately, this change in water flow
21 from LWR has affected the cultural, commercial,
22 recreational and spiritual pursuits of people
23 living downstream of Lake Winnipeg.

24 Working together, in Cree this is
25 called witasosketowin, with the people who live

1 and work along the Nelson River. Manitoba Hydro
2 is working to address these impacts of LWR through
3 agreements and other arrangements with all First
4 Nations and communities on the Nelson River,
5 through projects like the Cross Lake Weir, and
6 through programs for resource harvesting, access
7 and navigation, archaeology and heritage
8 resources, and recreation, as shown by the photos
9 on this banner.

10 That's my presentation. I hope you
11 have -- well, I think you have already had a bit
12 of a meeting with the Commission. I hope this
13 information was useful and I will be around after
14 the meeting to answer any questions.

15 THE CHAIRMAN: Thank you, Dale. Yes,
16 if you have questions of him, Mr. Nelson?

17 MR. NELSON: Where have you heard my
18 name before?

19 MR. HUTCHISON: Well, you have
20 communicated with the department, so I have
21 been -- I think I have actually provided you, or I
22 have provided you with information.

23 MR. NELSON: That's correct.

24 MR. HUTCHISON: It went back a few
25 years.

1 MR. NELSON: Because we are in a
2 public forum here, you mentioned a couple of
3 different things here in no particular order.

4 What does maximum discharge really
5 mean? It seems to me that -- and in
6 communications with Manitoba Hydro -- that it can
7 mean a number or a varied, very different
8 responses from you. For example, maximum
9 discharge, is that regulated by the amount of
10 water that can be sent downstream or, in fact,
11 does it mean the amount of water that will go
12 through the spillway, or the amount of water that
13 will go through the turbines, or a combination of
14 all of those things?

15 MR. HUTCHISON: I appreciate that
16 maximum discharge is quite confusing because there
17 isn't a single number. Maximum discharges varies
18 depending on a number of factors. These are the
19 level of the lake, whether there is ice on the
20 river, whether there is weed growth in the summer.
21 Those are the main things. So the number does
22 change. But essentially, maximum discharge is as
23 if Jenpeg didn't exist, if you pulled it out of
24 the river so it is not constraining the flow of
25 water, it is upstream constraints.

1 The Nelson River in this stretch where
2 we had to build these channels, there are a number
3 of constrictions that affect the flow of water.
4 So at maximum discharge, it is these
5 constrictions, these are rapid sections narrowing
6 of the river, those are what limit the flow of
7 water out of the lake. It is not Jenpeg at that
8 point.

9 MR. NELSON: Thank you, Dale.

10 Just for your own information, I
11 worked on those spillways, or pardon me, outlets.
12 As a matter of fact I was in Ominawin channel for
13 quite some time, during the summer of 1973 when
14 the contractor, BACM in those days, was having a
15 heck of a time cutting that channel because of
16 Manitoba gumbo. It couldn't move it. As a matter
17 of fact, there was what I will call a plug that
18 was left in, because there was an unexpected rock
19 formation underneath there that was not found at
20 that time, which I would imagine still restricts
21 the outflow to this date.

22 On a google search, I went back there
23 and noticed that, in fact, in place of a straight
24 approach to Ominawin channel there is in fact two
25 elbows, which to me are restrictions in outflow in

1 their own right.

2 However, getting back to other things
3 here. Flood of the century, 1997, Manitoba Hydro
4 provided me with certain data regarding the amount
5 of water that was going to flow generally in terms
6 of cubic feet per second. I did happen to know
7 that maximum discharge, which was supposed to be
8 in effect in those days, did not start until the
9 flood of the century was already into the south
10 basin of Lake Winnipeg. So whoever is in charge
11 of operating those gates, did not have the
12 foresight to see the amount of water that was
13 coming from southern Manitoba into the lake here.
14 That to me is totally irresponsible.

15 Citing what I was mentioning with the
16 maximum discharge, is there a different strategy,
17 and you had sort of related to looking after the
18 people on the downstream side, is there a
19 different strategy in approaching or consulting
20 with people on the south basin as opposed to
21 people on the downstream side?

22 MR. HUTCHISON: On the downstream
23 side, we knew right before this project even was
24 going to built that there would be impacts,
25 adverse effects is what we call it.

1 MR. NELSON: It does seem to date that
2 there is a lot of consultation going on, on the
3 downstream side, and nobody is worried about --
4 and compensation -- nobody is worried about this
5 end of the lake. Take for instance myself, my
6 home property actually was on the title and still
7 holds it as Crown land. Mine was original Crown
8 land, title from the Dominion of Canada. Nobody
9 has ever consulted me on what can be flooded.

10 Anyway, I'm sorry to put you in a bad
11 spot there. One further one. Glen Snyder, is he
12 still working with you folks?

13 MR. HUTCHISON: He has recently
14 retired.

15 MR. NELSON: Good for him, get out of
16 the line of fire. He had said to me at one point
17 in time that a drop of water not going through a
18 turbine is wasted. Would you say that that
19 reflects Hydro's operating position? You don't
20 need to answer that one. Thank you, Dale.

21 MR. HUTCHISON: I'm not going to speak
22 for Glen.

23 THE CHAIRMAN: He said you don't have
24 to answer that one, Dale, so take it as a
25 rhetorical question. Thank you, Baldur.

1 Now, before the break I had said I
2 hoped that Dale's presentation would stimulate
3 some more discussion. We have had some from
4 Mr. Nelson. Does anybody else have anything to
5 add to this discussion this afternoon? Any more,
6 any comments, any questions?

7 Well, we have had some very good
8 presentations so far. One last -- Mr. Matechuk,
9 do you have a little more to add to this?

10 MR. MATECHUK: Now that I see the map
11 here, I want to show you what I meant. I don't
12 know if people can perceive it or not.

13 If you will notice the size of the
14 north basin as compared to the south basin, where
15 90 per cent of the population lives, if you put
16 two and a half pounds of pressure on here, this
17 water is moving southward, and it will increase
18 this level by about 8 feet in 12 hours. That's
19 under extreme conditions. So, I mean, this is
20 what is happening to our shoreline. This water
21 comes through here, through this channel, around
22 this basin, taking whatever it can latch on to.
23 Because, like I said, a cubic metre of water
24 weighs approximately 2,200 pounds travelling at
25 8 miles an hour. If anybody is strong enough to

1 stand up against that, I would sure like to meet
2 him.

3 Anyway, it comes around here taking
4 whatever it can latch on to, comes around this
5 basin, comes up through, up the west side. And
6 because of this causeway here, that's blanked off,
7 it has no choice but to go around in circles. And
8 that is what is destroying our shoreline. We
9 can't mitigate that current. There is no other
10 way of doing it.

11 In the old days prior to '69, that
12 current would come down here and then it would go
13 up the west side of Hecla, around Grindstone, and
14 come back up here, limiting the amount of water
15 coming through the channel, through
16 self-regulation. We don't need any regulation at
17 all. Lake Winnipeg was able to do that on her
18 own. And without that mitigating factor, what you
19 get is that horrific speed of tremendous amount of
20 water. Like I said, in 12 hours, 8 cubic
21 kilometres of water goes into the south basin.

22 So Hydro can say whatever they want
23 about lake levels, but the higher it gets here,
24 the more current we will see here. The more
25 current we see here, the more erosion we will get

1 at the bottom of south basin.

2 THE CHAIRMAN: Thank you,
3 Mr. Matechuk. You were right when you commented
4 earlier that it would be better to have a map, I
5 didn't fully understand what you were saying until
6 you showed it on the map, so that's helpful.
7 Thank you.

8 MR. MATECHUK: It is called the
9 Bernoulli principle, where you get a narrow
10 restriction which increases the speed of the
11 velocity of the fluid going through the narrow
12 channel.

13 THE CHAIRMAN: Anyone else have
14 anything to add or any further questions?

15 Well, if not then we will adjourn
16 shortly. We have another session planned this
17 evening from 6:30 to 8:30. Just let me explain
18 what will happen after today, over the next few
19 months. But we have -- I noted earlier that this
20 is week four of what will probably be 12 weeks of
21 hearings. At the end of those hearings, which
22 will be about the third week or so in April, the
23 panel will sit down and sort of look at, consider
24 all that we have heard, and all that we've read,
25 and we will come to some decisions, some

1 conclusions, and some recommendations that we will
2 send to the Minister.

3 Typically, our report goes to the
4 Minister about three months after the end of our
5 hearings. So if our current schedule holds, that
6 means that a report will go to the Minister in mid
7 to late July. And then it is up to the Minister
8 to decide what he does with it, which
9 recommendations he accepts, and whether or not to
10 issue the final licence.

11 I can assure you that everything that
12 we've heard here today will inform us during our
13 decision making and during our deliberations. You
14 will see a lot of what we heard today reflected in
15 our report. Although, as I noted earlier in
16 response to Mr. Lowry and Mr. Matechuk, it may not
17 be specifically related to the licence, but it may
18 well be referenced in our report and related then
19 to non-licensing recommendations.

20 We can't guarantee that you will see
21 any, or certainly not all of what you would like
22 to see in our report, but I can guarantee that we
23 will take seriously what we have heard today, and
24 what we have heard in other communities and will
25 hear over the next number of weeks.

1 So unless anyone has any more to add
2 or any other questions, we will adjourn now and
3 come back at 6:30.

4 Thank you all for coming out.

5 (Dinner recess taken)

6 THE CHAIRMAN: Okay, I think we will
7 come to order. Good evening, welcome. My name is
8 Terry Sargeant and I'm the chair of the Manitoba
9 Clean Environment Commission, as well as the chair
10 of this panel that will be conducting this
11 particular review.

12 Also with me on this panel are to my
13 far left, Edwin Yee, immediately to my left, Bev
14 Suek, and on my right Neil Harden.

15 First thing before we get too far into
16 comments, if you have cell phones I would ask that
17 you turn the bells off. If you feel a vibration
18 and need to take a call, I just ask that you step
19 out of the room, please.

20 We are here this evening because the
21 Minister of Conservation and Water Stewardship has
22 asked the Clean Environment Commission to provide
23 a forum to hear evidence from the public on the
24 effects and impacts of Manitoba Hydro's regulation
25 of Lake Winnipeg. We were asked to hold meetings

1 in communities surrounding both the north and
2 south basins of the lake, as well as in the City
3 of Winnipeg. This is our fourth week of what we
4 anticipate will be 12 weeks of hearings. It will
5 be at least another four weeks in rural and
6 Northern Manitoba, and then about five weeks in
7 Winnipeg.

8 We've been asked specifically to look
9 at the reasons why Lake Winnipeg Regulation came
10 into being with the issuance of the initial
11 licence in 1970. We have been asked to look at
12 whether or not Lake Winnipeg Regulation has
13 succeeded or failed in meeting those goals. And
14 we have been asked to look at the effects and
15 impacts of Lake Winnipeg Regulation since first
16 operation in 1976.

17 While we recognize that Lake Winnipeg
18 Regulation is a key part of the Manitoba Hydro
19 system, we have not been asked to look at other
20 parts of the system, other than Lake Winnipeg
21 Regulation.

22 We try to keep our community meetings
23 as informal as possible, just in order to
24 encourage as many of you who wish to share your
25 thoughts and comments to come forward.

1 Our hearings are recorded, which is
2 required by the Environment Act. Within a few
3 days a verbatim transcript is produced of the
4 hearings and will be posted on our website.
5 Anyone who is present is welcome to come forward
6 and make a presentation, or to ask questions, or
7 to share your thoughts. If you do speak, we would
8 like you to first identify who you are, tell us
9 how Lake Winnipeg Regulation may have impacted
10 you, how it may have impacted your community. We
11 would like to know your views on whether or not
12 you think it has been good for the province as a
13 whole. And we also would like to know what
14 decisions you think we should make when it comes
15 time to reflect on all that we've heard over our
16 many weeks of hearings, as we prepare our
17 recommendations for the Minister.

18 There are also options to an oral
19 presentation. If you don't wish to make an oral
20 presentation but you still want to express your
21 opinion, we accept written submissions. That can
22 be as simple as a letter or email. You will find
23 the addresses on our website, which is
24 cecmanitoba.ca. I can assure you that written
25 submissions receive as much attention as oral

1 presentations. We read all of the written
2 submissions and they have equal weight in our
3 deliberations.

4 That's all I have by way of opening
5 comments. I would now like to ask Dale Hutchison
6 from Manitoba Hydro, who will give us a brief
7 description of what Lake Winnipeg Regulation is
8 all about, based on these panels to my right.

9 MR. HUTCHISON: Thank you, Terry.

10 Good evening. My name is Dale
11 Hutchison, I have been working with Manitoba Hydro
12 for 15 years to understand our impacts on the
13 waterways and on the people we share them with. I
14 will be talking about the Manitoba Hydro system,
15 Lake Winnipeg and Lake Winnipeg Regulation. Also
16 introduce *Brett Christensen, who is from our
17 customer service office out of Arborg, who is also
18 here with us today. He is at the back.

19 So a huge area from the Rocky
20 Mountains in the west to the edge of Lake Superior
21 in the east, and south to the Red River Valley in
22 the United States drains into Lake Winnipeg. The
23 shape of the land is a one million square
24 kilometre bowl. And that's what makes
25 hydroelectric development possible on a large

1 scale in Manitoba.

2 We have 15 generating stations in
3 Manitoba to take advantage of the water that flows
4 through the province. These are shown by the blue
5 dots on the map, and the size of the dots, small,
6 medium or large, shows how much electricity each
7 generating station can produce. You can see that
8 our largest generating stations are on the lower
9 Nelson, Kettle, Long Spruce and Limestone. These
10 three stations alone produce 70 per cent of all of
11 the electricity in Manitoba.

12 The power for these stations is sent
13 along two high voltage bipole lines to a converter
14 station just outside of Winnipeg. And there is a
15 third bipole line currently being constructed. We
16 also produce electricity using natural gas at
17 stations in Selkirk and Brandon, and we purchase
18 electricity from wind farms at St. Leon and St.
19 Joseph. All together we use water to produce over
20 95 per cent of all of the electricity made in the
21 province.

22 So Lake Winnipeg, as you likely know,
23 it is the tenth largest freshwater lake in the
24 world. It's Manitoba's great lake. A dozen
25 rivers flow into Lake Winnipeg, but there is only

1 one natural outflow, the Nelson River. This makes
2 it easy for the lake to flood. The mouth of the
3 Nelson River is wide, but it is very shallow. So
4 in winter, ice can slow down the flow of water out
5 of the lake.

6 Historically, flooding has caused
7 problems for people around the lake. It has
8 closed highways, farmers have had difficulty
9 getting crops in and out, it has caused damage to
10 homes and cottages. People put a lot of pressure
11 on the government to do something about it.

12 Actually, before I get into that,
13 these are Winnipeg Free Press headlines and
14 photographs of flooding events in recent history,
15 years like 1927, 1950, 1954, 1955, 1966, 1968,
16 1969, 1970. So this recurrent flooding issue on
17 Lake Winnipeg had people put a lot of pressure on
18 government to do something about it. So in 1970
19 the Premier of Manitoba announced plans to proceed
20 with Lake Winnipeg Regulation for flood relief on
21 Lake Winnipeg and for power production on the
22 Nelson River.

23 So LWR involved -- I'll call it LWR
24 because I will say it a lot, that stands for Lake
25 Winnipeg Regulation -- it involved digging a

1 second outlet for Lake Winnipeg, along with two
2 other channels shown by these squiggly lines on
3 the map. These three channels were dug to
4 increase the flow of the water out of the lake.

5 Now, you couldn't have just these
6 channels alone because you would drain the lake,
7 so a control was built at Jenpeg to control, to
8 regulate the outflow of water on the west branch
9 of the Nelson River.

10 Before we could build Lake Winnipeg
11 Regulation, first we needed to get a licence from
12 the Province under the Water Power Act. This is
13 similar to if you were going to build a house, you
14 have to get a building permit. So this initial
15 licence is called an interim licence, and to get
16 it we had to provide information to the Province
17 on how this project would affect water levels and
18 flows.

19 In 1970 the Province granted us a
20 licence to proceed, an interim licence to proceed
21 with LWR, which gave us the approval to build this
22 project. They also gave us three rules about how
23 it could be operated. The first rule was
24 operating ranges for Lake Winnipeg and some of the
25 downstream lakes. So, for instance, between

1 elevation 711 and 715, Manitoba Hydro can decide
2 how much water to flow through Jenpeg in order to
3 meet electricity demands. If the water level of
4 Lake Winnipeg gets above 715, we have to go, we
5 have to let as much water as possible out of Lake
6 Winnipeg. This is called maximum discharge. If
7 the water level goes below elevation 711, it is
8 the Minister of Conservation and Water Stewardship
9 who tells us how much water to let out of the
10 lake. So we agreed with these rules and in 1976
11 built LWR.

12 We applied for the final licence in
13 2010, after many years of negotiations with
14 communities, resource user groups, and First
15 Nations on the Nelson River, to address the
16 impacts of LWR.

17 So using this diagram of a faucet, tub
18 and drain, if all of these rivers flowing into
19 Lake Winnipeg are represented by the drop under
20 the faucet, the drain represents the natural
21 channel, the Nelson River, and the droplet under
22 it, the amount of water that can flow out of the
23 lake. You will see that two drops are different
24 sizes. What this means is that in a flood year,
25 you can have more water entering the water than

1 can flow out of it. So the lake level will rise
2 and the lake will flood.

3 In the lower diagram, you can see that
4 there is a second outlet. This represents the LWR
5 channel, it is half the size of the natural
6 channel. And you can still see these two water
7 droplets alone are still smaller than the droplet
8 representing all of the rivers coming in. So even
9 now with LWR, during floods, more water will enter
10 the lake than can leave it, only now the water
11 won't get quite as high and the flood won't last
12 as long. So this difference between inflows and
13 outflows is the reason why LWR can influence the
14 level of the lake, but it can't control it.

15 So people have different ideas about
16 how LWR affects the water level of Lake Winnipeg.
17 Some people think we keep the water level higher
18 all of the time. Some people think we keep it
19 lower. The Federal Government has been monitoring
20 water levels on Lake Winnipeg for 100 years, and
21 what this water level data shows is that the lake
22 is still behaving now as it always did. In the
23 spring and summer, the water levels rise, and
24 during the fall and winter, the level of the lake
25 falls. If there is a drought in the watershed,

1 the level of the Lake Winnipeg gets low. If there
2 is a flood in the watershed, the level gets high.

3 However, since 1976 when LWR was
4 built, there was one very noticeable change. I
5 will have to show you a graph because it is the
6 only really way to demonstrate water levels over
7 time.

8 So this graph shows how Lake Winnipeg
9 Regulation has reduced flooding on Lake Winnipeg
10 by comparing what the water level is with LWR to
11 what it would have been if LWR did not exist. So
12 one side of the chart has the elevation above sea
13 level. The bottom of the chart is the last 40
14 years from 1977, the first full year of operation
15 of LWR to now. The blue line represents the
16 actual with LWR water level, and the red line
17 represents an estimate of what the water level
18 would be if LWR did not exist.

19 You probably noticed that the last
20 decade or so has been very wet. There has been a
21 lot of water flowing into the lake and down
22 through the Nelson River. What this chart shows
23 is that in flood years like 1997, 2005, 2011 and
24 2014, the lake would have gotten two feet higher
25 and the flooding would have lasted much longer if

1 LWR did not exist. So this information is
2 demonstrating that LWR is meeting its goal of
3 providing flood relief on Lake Winnipeg.

4 Now, downstream it is a different
5 story. There are 20,000 people that live along
6 the Nelson River. Land and water is extremely
7 important to their identity and livelihood. While
8 all Manitobans benefit by having low cost reliable
9 electricity, and people around Lake Winnipeg
10 benefit from the flood relief provided by LWR,
11 people downstream have suffered by having more
12 water flow out of the lake during the winter and
13 during times of flood. And this additional water
14 has affected their cultural, commercial,
15 recreation and spiritual pursuits.

16 Manitoba Hydro has been working with
17 communities, First Nations and resource users
18 downstream, through agreements and other
19 arrangements, through projects and further
20 programs, as shown on the photos on this banner,
21 to address the impacts of LWR.

22 So that's my presentation. I hope you
23 have a productive meeting with the Commissioners,
24 and Brett and I would be pleased to talk to you
25 afterwards. Thank you.

1 THE CHAIRMAN: Thank you, Dale.

2 Right now it is your turn. So I'm
3 hoping, if any of you have any thoughts you wish
4 to share with us, any concerns you wish to
5 express, now is the opportunity. I would ask that
6 if you do wish to speak, you can stay where you
7 are, you can come forward to this table, whatever
8 you prefer, but you will have to use a microphone
9 because we are recording it and we need the
10 microphone to get it into the recording system.
11 So anybody have anything they want to say?

12 Okay. Just state your name, please,
13 and then just shoot.

14 MR. CAMERON ARNASON: Thank you,
15 Terry. My name is Cameron Arnason. Excuse me, I
16 have a bit of a cold. I live at Willow Island
17 about a mile south and two miles east of where we
18 are standing right now. And I have lived there
19 probably full-time for about 20 years, and I had a
20 cottage there for about the last 40 some years.
21 So I have seen the level of the lake rise and
22 fall.

23 My full-time residence is right on
24 Lake Winnipeg. I have seen in the last ten years
25 the land mass that is protecting me from the lake

1 being reduced by about 50 per cent. And that is
2 not simply by high water, it is by erosion.

3 The point I want to make here is that
4 floods come and go, like the floods in '27, the
5 '30s and '50s and in the '70s. The waters came up
6 and the waters receded and we didn't suffer
7 greatly. When the lake level was allowed to rise
8 and fall as it would do naturally, we had times
9 where the water was low, perhaps 713, 712, even as
10 low as 711. During those years when we have
11 storms, the land would build back. So even though
12 there was always a certain amount of erosion, the
13 natural course of events is when the water level
14 is low and there is a storm from the north, then
15 sand rebuilds what we have lost. So it was a
16 matter of losing land, recovering it, losing,
17 recovering, it was sort of an equilibrium. With
18 the water being kept at 715, we never have a
19 chance, the lake never has a chance to recover.
20 Because if it never goes below 715, then we never
21 have low water, and when there is a storm, we just
22 have more and more erosion.

23 Willow Island and Pelican Island have
24 been diminished, particularly Pelican Island I
25 would say is about maybe 25 per cent of the mass

1 it was 20 years ago. Since the regulation came
2 into effect, I feel personally that I have lost as
3 much as \$40,000 in damage to my property and cost
4 of re-building it and trying to protect it from
5 the erosion of the lake. It is my firm belief
6 that keeping the lake artificially high and not
7 allowing it to return to the levels where you can
8 rebuild during low water storms, that it is
9 putting my home in danger and my quality of life
10 has greatly diminished.

11 And my point is here, I'm against
12 Manitoba Hydro getting a licence to keep it
13 permanently at 715, and I hope that they will look
14 at 714 and 713 and a half. It would be more, to
15 my line of thinking, a little bit more reasonable.
16 Thank you.

17 THE CHAIRMAN: Thank you, Cameron. I
18 think down at the end.

19 MS. JUDY ARNASON: My name is Judy
20 Arnason. I built my house in 1994 on Willow
21 Island. But I'm 71 years old and I have been here
22 forever, for 71 years. And I have seen these
23 graphs, I don't know who made them, but every one
24 of those years where he said that because of
25 regulation things would be good, well, I have had

1 my house flooded, and it was never -- I owned that
2 land for many, many years. And since I was 13
3 years old that's been my place. And now I have
4 about 150 feet in front of my house, and now I get
5 water slapping on my deck. And in the storm, the
6 last year, or the last two years when the lake has
7 been up to 717, the wind would drive it on to my
8 front windows. Now, I didn't expect that I was
9 going to have to live like this, but it is very
10 worrisome. And it is very low -- \$40,000 is
11 nothing compared to what a lot of us have lost. I
12 have lost a lot more than 40,000. I have been a
13 real estate agent for 40 years. I know the value
14 of property, and mine has just gone zip. And I
15 put it all at Hydro's doorstep, absolutely.
16 Because I have been there.

17 And you know what, I know we need it.
18 Okay. So 713, or even 714, but not 715, because
19 wind driven at 715, my house is just going to go
20 off the foundation. And my house is well built.
21 So it is just -- I don't know what to do. Maybe
22 if Hydro has to have this, maybe you should buy us
23 all out. I have already got a huge rock wall in
24 front of my house where I used to have a beautiful
25 lawn and everything, so I could just walk down

1 with the kids. Now we have no access to the
2 beach, there is no way of getting down there. And
3 to me it has totally destroyed all of the
4 vegetation that was in front of my house and my
5 neighbour's house. We had all kinds of willows.
6 And it is just, like to me it is absolutely
7 ludicrous that you want to have a licence now to
8 keep it forever. Well, you know what, forget
9 about the lakefront properties, nobody is going to
10 buy them. It is just -- and if Hydro has to have
11 it, then you should build a great big rock wall
12 all around the lake and keep it. That's all I
13 have to say.

14 THE CHAIRMAN: Thank you very much.

15 MS. JOAN ARNASON: Hi, my name is Joan
16 Arnason, and I would just like to reiterate what
17 my brother-in-law and sister-in-law said. I would
18 add that I would say at least 95 per cent of
19 residents at Willow Island have had to protect
20 their property at great personal cost, you know,
21 if it is not gone. If it keeps up, I can't
22 imagine how we are going to be there at all. And
23 the islands that are south -- protecting us to the
24 south are going at a terrible rate. And the next
25 thing you have got is Winnipeg Beach and Sandy

1 Hook, and they are not protected by those islands
2 as they once were. So it is far too high. Thank
3 you.

4 THE CHAIRMAN: I'm sorry, Joan -- if
5 you could just give her the mic back. I was
6 making a note of your first comment. What did you
7 say about south from Willow Island towards Sandy
8 Hook?

9 MS. JOAN ARNASON: There is a row of
10 smaller islands there that kind of protect Willow
11 Island, and they have been decimated over the last
12 10, 12, 15 years. And they were not, they were
13 always high with strong trees on them, and they
14 are about 20 per cent of the size they were.
15 People don't know this.

16 THE CHAIRMAN: Okay, thank you.

17 MR. CLAYTON BRISTOW: Hi, my name is
18 Clayton Bristow. The government may or may not,
19 or the powers that be may or may not decide to put
20 the lake down, if it is decided it's a good thing
21 to do for the people that live around the lake.
22 There is other things to take into consideration.
23 There is too many nutrients going into the lake, I
24 think everybody would agree with that. If the
25 level of the lake was put down maybe a foot or

1 foot and a half, would it make a difference to the
2 amount of marshes that would come back, and things
3 like that that would filter the nutrients out of
4 the lake?

5 I was reading for a long, long time
6 the last couple of days on the internet, and
7 apparently it is not so much the big watershed
8 going out to Saskatchewan and Alberta and down
9 south that's causing the problem, it is the fact
10 that we have lost wetlands. I don't know if it is
11 going to help or not, but maybe a study should be
12 done to see if the level of the lake went down a
13 little bit, maybe the wetlands would come back and
14 would help filter the nutrients so that they
15 wouldn't go into the lake, which it is a bigger
16 consideration than the relatively small population
17 that lives around the lake.

18 Like I'm not saying that we are not
19 important. My family comes from Gimli too, and I
20 love the lake and I hate to see the flooding, but
21 that's a real big consideration too. I think
22 something should be done about that. Maybe it is
23 already being done, I don't know.

24 THE CHAIRMAN: We've heard similar
25 comments in a number of other sessions that we've

1 held so far, concerns about the lake, or the
2 marshes and the wetlands particularly, the
3 Netley/Libau marsh. We've looked at some of those
4 issues, some of the nutrient in Lake Winnipeg
5 issues. We, being, the Clean Environment
6 Commission have looked at nutrients in Lake
7 Winnipeg in some of our previous studies, notably
8 the City of Winnipeg sewage treatment system. And
9 we know it is a serious concern.

10 We've also, we have heard in other
11 meetings in the last week or two about studies
12 done on Netley/Libau Marsh. One person that's
13 been referenced a number of times is
14 Dr. Goldsborough. We have actually contracted him
15 to do a paper for us and it is up on our website,
16 about the marsh issue and what might be done to
17 reclaim some of it. There are a number of
18 problems with the Netley/Libau Marsh, among them
19 carp. That cut that was put in the channel of the
20 Red River about 100 years ago, it was initially I
21 think 50 feet wide, it is now about a mile wide.
22 And basically the whole Red River has sort of
23 moved into what was Netley Marsh and is now Netley
24 Lake. So those are some of the problems with
25 Netley/Libau Marsh. It is being studied a lot.

1 How soon -- I think there is actually going to be
2 some projects starting fairly soon on the marsh,
3 but it is in serious trouble, as you said.

4 Anybody else? Anybody on this side of
5 the room? Any other comments? Yes?

6 MS. JUDY ARNASON: I would like to ask
7 you your opinion on, if you could just keep it
8 even a foot lower than what you have got it now,
9 we could all live, we could all live where we are.
10 But if you keep it, if you keep it at 715, which
11 is your licence, you know what, if I have a
12 licence to drive a car and I drive it erratically
13 and I make everybody else's life miserable, they
14 take my licence off me. They don't give it to me
15 forever. I really don't think that -- let's just
16 say five years from now, Willow Island disappeared
17 into the water, all of the houses are gone, well,
18 that's not right. Is there any solution, is
19 anybody thinking of a solution, or is it just ram
20 it through, we are going to have a licence and
21 that's it, and to hell with everybody else?

22 THE CHAIRMAN: At this point I can't
23 give you an opinion because our job is to listen
24 to people such as you over about a three and a
25 half month period, and then we will sit down and

1 look at everything we have heard and come to some
2 conclusions, and probably some recommendations
3 that we will make to the Minister.

4 I can tell you that what you have
5 suggested will be considered, but whether or not
6 we recommended that, whether or not that is viable
7 at this point, I can't tell you. It would be
8 unfair for me to express an opinion now and then
9 got out and listen to people, perhaps come up with
10 other ideas afterwards. But we appreciate your
11 comments and it will be part of the consideration.

12 As for whether anybody is doing
13 anything in respect of Willow Island, at this
14 point, I don't know.

15 MR. CAMERON ARNASON: I just want to
16 make one more commentary, and that is that I don't
17 dispute that Hydro's regulation hasn't done some
18 good when it comes to preventing overall flooding
19 over the years, it may have done that. But as I
20 say, periodic flooding doesn't do us a great deal
21 of harm, it is part of the natural cycle of
22 things. It is when you don't allow the lake, I
23 think I made that point earlier, when you don't
24 allow the lake to go to a naturally low level --
25 to keep it artificially high at 715, it can never

1 rebuild itself and the erosion will go on and on
2 and on, and all of the people around Lake Winnipeg
3 are going to continually lose their land. At 714,
4 I think it is allowed at times perhaps to go even
5 less, and then if we have a storm that land might
6 build back. But I know that my land, property is
7 going to be diminished more and more, and perhaps
8 I will even lose my home.

9 I do have a protection now that I just
10 spent 25,000 on last summer. Hopefully, that will
11 keep the lake from coming into my house. But I'm
12 at a position now where I once had a very valuable
13 property, that if I don't know if I wanted to sell
14 it, whether I could or not. That's all I have to
15 say.

16 THE CHAIRMAN: Thank you, Cameron.

17 Anybody else, comments, questions?

18 No? Maybe we will take a very brief coffee break,
19 and then if anybody comes up with any other ideas
20 in the few minutes while we take a break, we will
21 hear them then. If not, we may have a short
22 evening.

23 (Recess taken)

24 THE CHAIRMAN: Can I just interrupt
25 for one minute? Do any of you wish to say

1 anything more on the record? Do any of you have
2 any more comments or questions you would like to
3 say on the record? If not, we will shut down this
4 part of it and you can beat up the Hydro guys all
5 night.

6 Okay. So I gather that you've all
7 said what you want to say on the record. As I
8 noted at the outset, and I know some of you have
9 taken business cards, you are more than welcome to
10 make written submissions over the next couple of
11 months.

12 What happens from here on for us and
13 for what we have heard tonight, we have another, I
14 believe it's another eight weeks of hearings. We
15 finish about the third week in April. We then
16 have about three months to produce a report. So
17 at the end of the hearings we will sit down, the
18 four panelists, along with our technical advisors,
19 we will talk about the issues that we've heard, we
20 will talk about conclusions, we will talk about
21 hopefully solutions, but I wouldn't bet on
22 guaranteed solutions anyway, but we will talk
23 about recommendations that we might make to the
24 Minister.

25 I can't guarantee that any of our

1 recommendations will be the ones that you would
2 like to see, but I'm not saying you won't see them
3 either. But I can guarantee that we will consider
4 everything that we have heard tonight, as well as
5 in all of our other hearings and meetings over the
6 next number of weeks, and the last, well, four
7 weeks now.

8 So, thank you all for coming out
9 tonight. We look forward to hearing more in the
10 form of written submissions from one or two or
11 three of you. Thank you and good night.

12 (Concluded at 7:45 p.m.)

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OFFICIAL EXAMINER'S CERTIFICATE

I, CECELIA J. REID, a duly appointed Official
Examiner in the Province of Manitoba, do hereby
certify the foregoing pages are a true and correct
transcript of my Stenotype notes as taken by me at
the time and place hereinbefore stated, to the
best of my skill and ability.

Cecelia J. Reid
Official Examiner, Q.B.

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