



## FINAL ARGUMENT – Manitoba Hydro

### 1. INTRODUCTION

“We have heard today from history that the decision to regulate Lake Winnipeg was a government decision that involved input from Manitoba Hydro. And that Government decision was multi-objective; to provide flood relief to those around Lake Winnipeg, and to enable the development of hydro power to meet the growing needs of the province. That decision balanced those major competing interests, but it has been done at a cost to those downstream.”

Mr. David Cormie, CEC Hearing Transcript, March 10, 2015, Page 162

Manitoba Hydro has made its position clear in the Lake Winnipeg Regulation (LWR) Plain Language Document, in responses to the written information requests and in testimony before the Clean Environment Commission (CEC). LWR has met the goals laid out by the Province of Manitoba when it issued the Interim Licence. It has reduced flooding on Lake Winnipeg and is a critical link in the production of reliable and affordable energy for Manitobans.

“Lake Winnipeg floods now are passed through the lake at lower levels than they would otherwise be as a result of the project. And it’s our belief that this is a benefit to everyone, including the First Nations around the lake, and that that’s not an adverse impact, that’s a benefit, and it’s a benefit that everybody enjoys.”

Mr. David Cormie, CEC Hearing Transcript, March 12, 2015, Page 447

The achievement of those goals and the benefit to Lake Winnipeg has come at a cost to the people downstream and Manitoba Hydro has entered into a series of agreements that recognize that cost and provide compensation and programming to address it. Manitoba Hydro, moreover, remains committed to mitigation of downstream effects. Manitoba Hydro has operated LWR honourably and in good faith. It is now entitled to a Final Licence for LWR.

The Clean Environment Commission has spent the last four months hearing from Manitobans about their experience with LWR. Residents around Lake Winnipeg and experts have described the many issues currently facing Lake Winnipeg. Downstream communities have eloquently and passionately described their experiences with LWR. Participants and Manitoba Hydro have suggested that only the Province of Manitoba can provide the leadership required to tackle outstanding problems and, part of the process of doing that would be to stipulate a detailed process for renewal of the *Water Power Act* (WPA) Licence for LWR and other projects.

It has become clear that the key issue arising from these hearings is how we move forward. How does Manitoba Hydro move forward with its licence renewals? How do downstream First Nations and communities, governments and Manitoba Hydro move forward to forge a strong and positive relationship that builds on what has been learned over the last 60 years of hydro-electric development?

How should the Province address the concerns around Lake Winnipeg? This argument will address the concept of moving forward in two ways. Manitoba Hydro will:

- 1) Place before the Commission its view of the current request for a Final Licence and the distinction between it and the future licence renewal application which must proceed sufficiently in advance of 2026 for the renewal process to be meaningful; and
- 2) Respond to some of the most significant recommendations made by the various parties at the hearing and put forward its comments with respect to those recommendations, including their practicality and potential effectiveness.

## **2. MOVING FORWARD – The Road Map from Final Licences to Licence Renewals**

In the course of these hearings Manitoba Hydro has frequently referred to the road map that is required to define a licence renewal process that will assist in striking a modern balance for Manitobans. It would be in that process, provided it is well designed and implemented in sufficient time to permit studies to be scoped and conducted, that consideration could be given to altering the terms of the existing licence or varying the objectives of LWR. Manitoba Hydro encourages the Commission to recommend to the Minister that work begin forthwith on designing and implementing such a process.

### **Final Licence Request**

On December 22, 2010, Manitoba Hydro requested its Final Licence for LWR with the belief that it had fulfilled the terms and conditions of its Interim Licence. It is also Manitoba Hydro's position that:

"It has also exercised its discretion in operating Lake Winnipeg Regulation honourably and in good faith."

Ms. Janet Mayor, CEC Hearing Transcript, April 16, 2015, Page 2707

In its operations Manitoba Hydro has complied with the operating terms of the licence while considering the effects on the environment and on people.

"Yes, we operate within the parameters of the licence, with consideration on impacts on stakeholders, be it slush ice impacts or water level changes. So there are operating decisions that are made with consideration of those impacts and some of those operating decisions are discretionary."

Mr. Kevin Gawne, CEC Hearing Transcript, March 12, 2015, Page 530

Operating LWR within the complexity of Manitoba's power system involves developing a plan or a series of planned operating decisions. These plans must balance supply and demand and ensure that licence conditions are met. To do this Manitoba Hydro has developed a suite of modeling tools.

“...it is a complex system of tools that Manitoba Hydro uses to plan the operations of its system. And it's fundamentally based on operations research and essentially applied mathematics to help us plan the operation of the system, where we inform these decisions through well established tools.”

Mr. Kevin Gawne, CEC Hearing Transcript, March 10, 2015, Pages 59-60

Once operating decisions have been made, as required by licence and agreements, Manitoba Hydro must communicate these decisions on an ongoing basis.

“What we do consistently, to give people a sense of what the water levels are expected to be, is through our water level forecast notice program, where we do -- every month we send information what the anticipated water levels are going to be.”

Mr. Dale Hutchison, CEC Hearing Transcript, March 18, 2015, Page 1137

Where our operations have impacted people in the downstream area, over the last forty years Manitoba Hydro has worked to address these impacts.

“Although the Northern Flood Agreement was signed in 1977, it has taken 40 years for Manitoba Hydro to understand the full impacts of the project, mitigate them if possible, such as with the Cross Lake weir, and negotiate comprehensive agreements and compensation. In addition, ongoing programming such as safe ice trails and debris management were needed to be put in place to deal with concerns of local stakeholders. ”

Mr. David Cormie, CEC Hearing Transcript, March 10, 2015, Page 28-29

Manitoba Hydro has long recognized the importance of Lake Winnipeg to Manitobans and has been an important contributor to research and outreach programs for the Lake. Manitoba Hydro will continue to support initiatives such as the Lake Friendly Accord, the Lake Friendly Stewards Alliance, The Lake Winnipeg Research Consortium and the Water Innovation Centre among others.

“Lake Winnipeg is a key part of the Manitoba Hydro system. Also it has significant cultural, spiritual, commercial and recreational importance to Manitobans. Therefore, Manitoba Hydro will continue our participation and support of research, development of best management practices, stewardship and education for the lake.”

Mr. Dale Hutchison, CEC Hearing Transcript, March 10, 2015, Page 161-162

### **An Unprecedented WPA Process**

The current process undertaken in response to Manitoba Hydro's request for a Final Licence for LWR has been the most comprehensive review of any project administered under the *Water Power Act*. In the absence of any detailed legislated guidance, the Commission asked Manitoba Hydro to file an overview document that would serve as a foundation for written questions, the development of further evidence and a public hearing.

“To assist with that public involvement, Manitoba Hydro has published a plain language document, and we published that in July 2014, that describes the Lake Winnipeg project and how it works, explains the licensing process, describes the effects on water regimes and impacts the environment. It describes Manitoba Hydro's ongoing dialogue and engagement efforts with stakeholder groups, and considers some implications of changing some terms of the licence.”

Mr. David Cormie, CEC Hearing Transcript, March 10, 2015, Page 20

The Commission itself has expended much effort to hear the views of Manitobans on their experience of LWR. The Commission hired seven experts to provide independent advice, attended 19 community meetings/hearings over three months and held five weeks of hearings in Winnipeg.

“The work done by both the CEC experts and by the participants and presenters has been tremendous, and will most certainly guide the CEC in its deliberations, but also guide Manitoba Hydro in its future endeavours.”

Ms. Janet Mayor, CEC Hearing Transcript, April 16, 2015, Page 2706

Although some Participants described the LWR Final Licence process as inadequate, Manitoba Hydro disagrees. Given the absence of any precedent for a review of projects under the *Water Power Act*, the process that was developed attracted the attention of a variety of concerned parties and allowed for all of the key issues surrounding LWR, both upstream and downstream to be heard.

“We have heard this licensing process referred to as quiescent. Manitoba Hydro would point out that this is the first licence review ever completed under the *Water Power Act*. Nowhere in the *Water Power Act* is this type of process called for, or even contemplated. Instead of being quiescent, Manitoba Hydro has embraced this process. Our position on moving forward reflects our belief that expectations have changed, that Manitoba Hydro needs social licence, and indicates our willingness to participate in the development of a modern process.”

Mr. David Cormie, CEC Hearing Transcript, April 16, 2015, Page 2720-2721

In addition, the Commission itself has performed a tremendous task in fulfilling the mandate provided by the Province of Manitoba. The fourfold mandate included reviewing the public policy in place in the 1970s, reviewing the successes and failures of implementing the policy, hearing evidence from Manitobans about LWR and providing comments back to the Minister of Conservation and Water Stewardship. The Chair of the Commission has been clear that providing an opinion on the issuance of a Final Licence is not part of that mandate.

“The Commission has not been asked to provide an opinion on whether or not the final licence should be issued”

Mr. Terry Sargeant, CEC Hearing Transcript, March 10, 2015, Page 8

## Changing the Terms of the Licence

Through this process Manitoba Hydro has been clear that we are not requesting a change to this licence. However, the Commission has heard extensive testimony from both upstream and downstream interests suggesting changes to the operating parameters.

“One badly needed change to the licence is a reduction in the level at which mandatory water release takes effect, at the very least to 714.”

Mr. Nelson Gerrard, CEC Hearing Transcript, February 5, 2015, Page 25

Mr. Gerrard’s sentiments were reflective of many upstream Participants as a number of the public presentations around Lake Winnipeg requested lowering the upper limit of the power production range from 715 to 714 feet. All of these requests, in some cases they amounted to demands, were generated by the conviction of those making them that LWR has contributed to more flooding and erosion on Lake Winnipeg than would have been the case without LWR. However, none of the parties who asked for a reduction in the maximum discharge level presented any evidence whatsoever that LWR has caused either more flooding or an increase in the rate of erosion on Lake Winnipeg. Moreover, those parties who complained that LWR has had adverse impacts on Lake Winnipeg, ignored entirely the data of lake levels collected both before and subsequent to 1977 which showed that the average level of the Lake has not changed significantly, that the extreme high water levels have been reduced since LWR was built and that in the last two decades, Manitoba has experienced a climactic wet cycle which accounts for much of the higher inflows into Lake Winnipeg. Further, the parties who stated that LWR was contributing to the problems of Lake Winnipeg made no effort to address the expert evidence, introduced on behalf of the Commission, that attributed erosion on the lake to the effects of isostatic rebound and found, significantly, that the rate of erosion on the lake since LWR was built has not changed from the rate experienced prior to its construction. Notable, as well, was expert evidence that LWR is not a meaningful factor in the growing problem of nutrient loading in the lake. A recommendation to reduce the maximum discharge level would have to be based upon persuasive evidence that doing so would address the problems around Lake Winnipeg and upon cogent evidence that the value of those benefits would outweigh the costs to those living downstream with the release of more water and the increased costs to Manitoba Hydro that would inevitably arise in the production of energy. No such persuasive evidence was tendered. No measured accounting of such costs and benefits was presented.

The representatives of the downstream communities, including Pimicikamak, provided compelling testimony that the flood control benefits of LWR have resulted in significant adverse effects downstream. Arguably, the flood benefits that LWR brought to Lake Winnipeg resulted in the ‘transfer’ of adverse impacts to the waterways and people downstream of LWR.

“...the licence parameters, as they stand, are very biased against the downstream people”

Dr. Annette Luttermann, CEC Hearing Transcript, April 7, 2015, Page 1926

It is clear that the interests of upstream and downstream stakeholders are not aligned. Furthermore, many of those experiencing the negative impacts caused by LWR are hesitant to see any changes in operations.

“We do not want any changes to the operating conditions of Lake Winnipeg Regulation. While our nation has suffered the adverse effects of regulation for 40 years, any changes, including those options assessed in Hydro's Lake Winnipeg Regulation report, would bring new, unpredictable changes and uncertainty, to a greatly altered and delicate ecosystem. Thank you. Egesi.”

Mr. Brian Keeper, CEC Hearing Transcript, March 26, 2015, Page 1693-1694

Manitoba Hydro agrees with a number of Participants in its assertion that at this time any change to the operating parameters would be premature because we do not have an adequate understanding of the environmental, social, and economic implications of the various changes that were requested. A change in the licence would need to be thoroughly studied and reviewed by a wide range of stakeholders.

“But whether the operation of Lake Winnipeg Regulation can be changed to our benefit would require detailed and thorough studies. If such studies are contemplated, York Factory must be involved. To be clear, there can be no changes to the licence with or without our agreement and formal consent -- without our formal agreement and informed consent.”

Chief Ted Bland, CEC Hearing Transcript, March 26, 2015, Page 1664

The place for this review would be part of a properly defined licence renewal and would build on the work of the Regional Cumulative Effect Assessment (RCEA) and Coordinated Aquatic Monitoring Program (CAMP).

### **Licence Renewal Process**

A *Water Power Act* Licence is not a permanent licence, nor is it automatically renewed. Whether Manitoba Hydro has an interim or Final Licence for LWR, either will expire in 2026. Manitoba Hydro will be requesting a renewal licence prior to that date.

While Manitoba Hydro believes that the current licence terms should not be changed at this time, Manitoba Hydro is of the opinion that the licence renewal presents an opportunity to review the licence terms.

“Manitoba Hydro has not said we want no licence change, only that we are not requesting a change in this process. By changing the terms of the licence in a modern context requires everyone at the table. We cannot strike a deal with one group. York Factory, Split Lake and others have been very clear that they need to be involved in any changes to the terms of the licence.”

Mr. David Cormie, CEC Hearing Transcript, April 16, 2015, Page 2720

Manitoba Hydro is committed to doing the right thing and believes that a modern balance for LWR can be achieved. However, it will require significant study with considerable public involvement. Considering the large number of stakeholders, their diverse views on regulation and the large geographical area of project influence, the process will require significant time and resources.

“The review process and the renewal process is an opportunity to look at it on a comprehensive basis, and then create a renewal licence that represents a new balance, knowing that there is many stakeholders that have an interest in the regulation, not just a single stakeholder.”

Mr. David Cormie, CEC Hearing Transcript, March 12, 2015, Page 606

In his evidence, Mr. Cormie described Manitoba Hydro’s commitment to doing the right thing:

“Now, it may be that that modern balance is exactly the same as the old one, but it will be done deliberately, having studied it, got input involved, the public in a public consultation process, using best science to derive best policy. And so I believe we do have time to do that.”

Mr. David Cormie, CEC Hearing Transcript, March 11, 2015, Page 225

While Manitoba Hydro is committed to doing the right thing and achieving a modern balance as part of licence renewal, the process and requirements are presently unclear. Section 46 of the WPA Regulation speaks to requirements for the renewal of a Final Licence. The Regulations specify a time frame for the renewal application, however beyond that other requirements are vague at best.

In his evidence, Mr. Cormie described the current licence renewal process using these words:

“So it seems appropriate, as we think about a renewal licence, that confirmation takes place, the value of the Lake Winnipeg resource, including, you know, modern values that may not have been anticipated at that time be considered. And to the extent that that issue is raised as part of the relicensing process, we will participate in that. But, again, we do not yet have guidelines from government on whether that will be a requirement for renewal licence. The *Water Power Act* just requires us to apply. It doesn't say to Manitoba Hydro what is needed in order to apply. And I think we would like to have long lead times so that we can prepare for that application. And then to the extent that that balance between interests is an issue, that there's been lots of time to consider that.”

Mr. David Cormie, CEC Hearing Transcript, March 12, 2015, Pages 493-494

As noted, Manitoba Hydro’s Final WPA Licence for LWR would expire in 2026. Manitoba Hydro’s current expectation is that it will be applying for a renewal licence approximately five years prior to that time. As indicated by Mr. Cormie above, the licence renewal process presents a potential opportunity to revisit the terms of the licence and develop a modern balance considering the issues of all stakeholders. In his

evidence, Mr. Cormie suggested that the Province should lead development of the road map going forward:

“I don't believe it's in Manitoba Hydro's, or Manitoba's interest that we go forward without some strong leadership at the Provincial level of what's expected of the utility. And we will rise to the expectation. The company will do the right thing. What gets difficult is when we assume that we know what expectations are and then we get into a public process and there isn't an alignment with what the public is thinking. And we don't want to be there. We want to reflect modern values. We want to reflect the values of everyone, and try and achieve the maximum for all the people in the province. And that's not just a utility issue, that's a government issue, and so leadership at that level would be very valuable for us as we go forward.”

Mr. David Cormie, CEC Hearing Transcript, March 11, 2015, Pages 227-228

The idea of a provincial led road map for the licence renewal process was also discussed by Mr. Raining Bird and Mr. Cormie as follows:

“And again to keep going back to this, but we were talking earlier and you stated that in terms of applying for renewal of the licence, at that point we would need to strike -- come up with a modern balance. And as part of that I think you agreed that a road map or guidance would be beneficial. Is that correct?”

Mr. Jeremiah Raining Bird, CEC Hearing Transcript, March 12, 2015, Pages 599-600

“Yes, I agreed to that because it is hard to make a modern balance without having all of the information. And the road map involves identifying the issues that are still contentious, the new problems that we are facing, collecting the information around that, getting input to that process, and so that when government makes the decision in the future about how the licence will be renewed and on what terms, that information is available so that public policy decisions can be made. And, you know, Manitoba Hydro would like to go into that process with being able to provide that. Being the applicant for the renewal licence, the onus is on us to bring forward a case that we don't want to fail in that process, we want to be successful, and I don't think that anybody wants to be surprised by the outcome. So I think a road map to help us get to where we would like to go, and with government involvement, would be very helpful to the utility.”

Mr. David Cormie, CEC Hearing Transcript, March 12, 2015, Page 600

Several current initiatives and processes led by Manitoba Hydro and the Province of Manitoba will help to identify knowledge gaps related to operation of LWR. The most notable of these include CAMP and RCEA. However, as described by Mr. Cormie below, without a more clearly defined licence renewal process, current initiatives may not identify all the relevant and important issues.

“I believe that the RCEA process that we are in, and the monitoring program we are in through CAMP and other programs are identifying, you know, some of the gaps but maybe those aren't all the gaps that might be necessary to deal with.”

Mr. David Cormie, CEC Hearing Transcript, March 18, 2015, Page 1171

Completion of the RCEA final report will facilitate identification of knowledge gaps in the downstream area. The RCEA public outreach program will provide an opportunity for the affected First Nations and communities within the RCEA Region of Interest (LWR/CRD routes) to comment on the Phase II report expected later this year. Manitoba Hydro sees value in allowing this process to continue and recognizes that there is much more work to be done.

“Manitoba Hydro does not see this hearing process and our final request for a final licence as the end of our work, rather we see these activities as the next step on a path that leads to a renewal licence in 2026 that will strike a modern balance between those upstream and those downstream which is in the best interests and benefit of all Manitobans.”

Mr. David Cormie, CEC Hearing Transcript, March 10, 2015, Page 171

Throughout the hearing process, Manitoba Hydro heard about water use planning, water management planning, and integrated licensing processes in other jurisdictions. While the exact processes used in other areas may not be directly transferrable to Manitoba, they do provide ideas that could positively be applied to a licence renewal process in Manitoba.

In his evidence, Dr. McMahon described early stakeholder involvement as one positive aspect of the United States Federal Energy Regulatory Commission's (FERC) integrated licensing process.

“In the integrated licensing process, it is a way to get the stakeholders involved from start to finish. The stakeholders actually become cooperators in the study, they become part of it. And even State agencies or Federal agencies or non-government agency organizations can become cooperators as well.”

Dr. George McMahon, CEC Hearing Transcript, March 17, 2015, Page 1000

Mr. Bedford and Dr. McMahon also pointed to efficiencies that could be gained through combining the licence renewal process for several interlinked projects at the same time:

“But the suggestion that I wanted to make to you that flows from a process that one wants to be efficient is that it would be sensible if you had an applicant, with say three licences all expiring about the same time, for example, for three generating stations and a set of control structures, to proceed with the relicensing process that combines all of them, particularly when they are linked?”

Mr. Doug Bedford, CEC Hearing Transcript, March 17, 2015, Page 1023

“Yes, that's common, they actually consolidate licence applications.”

Dr. George McMahon, CEC Hearing Transcript, March 17, 2015, Page 1023

Mr. Cormie also pointed to the idea of gaining efficiencies by combining projects in licence renewal processes especially for projects with overlapping effects.

“The other issue that we raised is that it's hard to separate the effects of Lake Winnipeg Regulation from the effects of Kelsey, from the effects of Churchill River Diversion, depending on where you're looking at. So an integrated licences process that involves, you know, maybe looking at the projects together. And then we don't have to worry about, well, who's causing it, if they are a result of maybe hydroelectric development. And so some thought of combining those processes, I think there's some efficiencies to be gained there.”

Mr. David Cormie, CEC Hearing Transcript, March 18, 2015, Pages 1170-1171

In his testimony, Mr. Cormie identified several logical groups for licence reviews. These include:

- Lake Winnipeg Regulation, Churchill River Diversion and Kelsey Generating Station
- Winnipeg River generating stations
- Limestone, Long Spruce and Kettle generating stations

## Summary

Based on the current legislation and its successful history of operating LWR in accordance with the Interim Licence, Manitoba Hydro is entitled to a Final Licence. Moreover, Manitoba Hydro believes that it would be imprudent to make any changes to the LWR Licence terms at this time because not enough is known about the potential implications of change. This includes social, environmental, and economic impacts both on Lake Winnipeg and in the downstream area.

To those parties who urged changes to the terms of the licence now, Manitoba Hydro observes that two significant parties, Tataskweyak Cree Nation and York Factory First Nation, whose citizens have had to bear the impacts of LWR since 1976, urged that there be no changes to the licence. Furthermore, if changes in due course are to be considered, they ask for consultation. With respect to the one party, Pimicikamak, also representing citizens who live downstream of LWR did urge changes to the licence terms. Manitoba Hydro observes that the witnesses for Pimicikamak were also vigorous in stating that in the past they had not been consulted with respect to LWR and that must not be repeated. Clearly, we must refrain, at this time, from making changes in the absence of consultation.

Manitoba Hydro recommends reviewing the terms of the LWR Licence as part of the licence renewal process. However, because the licence renewal process and requirements are not clear, the Province of Manitoba should lead development of a road map for licence renewals. Such a road map ought to provide for a process that allows, at an early date, for the selection of which issues, and which studies, should be conducted. The process should allow for the public to have meaningful input and debate on

that selection process. Such studies, done properly, take time and are costly. They should begin years in advance of the final stage of a licence renewal process.

Manitoba Hydro also recommends that consideration be given to combining the licence renewal process for several projects when they all expire within a similar timeframe and/or when they have overlapping effects.

“We have heard the word "status quo" from both Pimicikamak and the Consumers Association. Status quo, with regards to issuing a final licence, does not mean nothing will be done. The RCEA is underway. There is a process agreement in place with Pimicikamak and Manitoba, and potentially other parties. We recognize that much work needs to be done, and 11 years is not too soon to start. This work involves identifying research gaps, addressing these gaps, developing models, and building understanding and engaging with people.”

Mr. David Cormie, CEC Hearing Transcript, April 16, 2015, Page 2719

### **3. ADDRESSING THE CONCERNS**

The CEC public hearing process provided numerous ways for Participants, Presenters, communities and the public to provide comments and recommendations on the LWR. An extensive list of recommendations received through written submissions and oral testimony are summarized in Appendix A and Manitoba Hydro provides its comments and position on each of them. The following is a response to some of the key recommendations pertaining to:

- Governance
- Studies, Monitoring and Follow-up
- Lake Winnipeg Compensation
- Aboriginal Traditional Knowledge (ATK)

#### **Governance**

The theme of water governance was raised by various Participants throughout the hearings. Recommendations within this theme included reviewing current water legislation, establishing a transboundary large basin planning process and implementing a multi-party decision making board. It is clear by the broad range of recommendations on this theme that water governance lies close to the heart of Manitobans.

The Manitoba *Environment Act* is currently undergoing two concurrent reviews, one by the Law Reform Commission and another by the Province of Manitoba. Any further review would be duplicitous. The *Water Power Act* Regulations were updated as recently as 2010. All parties ought to remember that these two Acts are not confined in their scope and purpose to issues that confront only Manitoba Hydro and Lake Winnipeg. Of necessity, they must address problems and processes well beyond hydro matters

and the current state of Lake Winnipeg. Simple legislative fixes that may be attractive for these concerns may not be at all suitable for other matters that would be 'caught' in such fixes. There is scope within current processes for the Minister to provide timely, detailed guidance on the licence renewal process for LWR and related projects whose licences are coming due. It makes good sense to direct funding and related resources to the bodies currently working on the problems of Lake Winnipeg so that they can continue to build on existing foundations without confusing them and us with more legislation. Within existing Federal and Provincial legislation there lies adequate authority to address the concerns raised in this hearing. Improved coordination of environmental and water regulation would be desirable, though in and of itself it will not solve problems. Manitoba Hydro is seeking direction from the regulator in the form of a plan for licence renewals – a road map that will make effective use of resources and time and will provide for meaningful input and involvement by affected interests.

With regards to large basin planning, Manitoba Hydro also shares these values and recognizes the need to think big picture, much of which lies outside the scope of Manitoba Hydro's mandate and the expertise of its staff. Given the recognition of this need it is again imperative for the Province of Manitoba to demonstrate leadership in the application of water legislation. In exercising their leadership the Province will need to recognize the following:

- Water management in the Province of Manitoba goes beyond Manitoba Hydro and must include all major water management projects
- Hydropower is the foundation to the Province's Clean Energy Strategy
- Affected interests must be involved early and throughout the process
- Ecosystem health is one component of many to be considered
- One size does not fit all, so proper scoping and cost considerations are essential in directing what studies of what issues in what time frame are to be conducted
- Prior agreements entered into by Manitoba Hydro and various First Nations, communities, resource users and others are all founded on the parties' understandings of LWR as it is. So, if LWR is to be changed, the impact such changes will have on all prior agreements ought to be carefully studied; if the agreements become 'inoperable' due to changes to LWR, then the costs of new impacts will have to be estimated and if Manitoba Hydro ceases to be the licensee/operator of LWR, whoever replaces Manitoba Hydro will be faced with the resolution of the new issues arising out of changes to LWR.

This CEC process has identified that the public wants to be not only better informed on how Manitoba Hydro operates but in some cases wishes to have direct input into decisions, though it was often very unclear in what decisions citizens want to play a more active role. As part of the Process Agreement with Pimicikamak, Manitoba Hydro is committed to the discussion and consideration of a multi-party decision making board. Despite this commitment, Manitoba Hydro has the following concerns regarding the role of such a board:

- Removing operational control from Manitoba Hydro could jeopardize the security of Manitoba's electricity supply

- Removing operational control from Manitoba Hydro would have economic impacts to Manitoba Hydro's electricity customers
- Placing the overall decision making authority in the hands of a board would also place the responsibilities for compensation, mitigation and remediation in its hands
- There would be practical operational inefficiencies (e.g. responsiveness of the board to make decisions in a timely manner with rapidly changing inflow conditions)

Manitoba Hydro operates the integrated power system to fulfill its mandate – i.e. to provide for the reliable and economic supply of power for Manitobans. Manitoba Hydro fully appreciates its role as a steward of the resource and that there are a number of affected interests along the waterways impacted by its operations. This is an important role - as such Manitoba Hydro has operated LWR and its integrated power system responsibly and with due diligence. Manitoba Hydro is committed to moving forward in developing an appropriate means by which First Nations, the Métis and the public have input into the licensing of its projects.

### **Studies, Monitoring and Follow-up**

The requests for further studies and monitoring heard by the Commission were numerous. These requests came from both upstream and downstream interests. Examples of such requests are:

- Lake Winnipeg monitoring - water quality, erosion, wetlands, wildlife populations, fishery, new invasive aquatic species, additional water level gauges
- Downstream monitoring - Playgreen Lake fishery, health of aquatic and riparian habitats, ecological or cultural effects of the ice stabilization program, effect of operational changes, effects on health
- General concerns - climate change, upstream storage, increasing Lake Winnipeg outflow, increasing archeology assessments, increasing involvement and participation of stakeholders

The Province of Manitoba currently leads Lake Winnipeg research, monitoring and reporting. The Lake Winnipeg Research Consortium has played a vital role in coordinating and facilitating research activities around the lake. The Lake Winnipeg Foundation is leading an effort to restore the health of the Netley-Libau Marsh. Manitoba Hydro has and will continue to play a supportive role in Lake Winnipeg research and programs. Any recommendation for further studies on Lake Winnipeg needs to be framed within this context. As well, if the Commission makes specific recommendations it needs to ensure that they are well founded and cost effective. For example, recommendations by Peter Zuzek, Baird & Associates for a technical investigation on shoreline erosion would require substantial financial resources and would provide little additional insight into the causes of the erosion. The Province's money and effort would be better spent on helping shoreline property owners improve the resiliency of their property to shoreline erosion and ensuring that shoreline development is governed by sensible, coherent legislation that restricts where it can take place.

While there have been extensive studies of individual regions in the downstream area, Manitoba Hydro recognizes the limitations of these past studies. As such, Manitoba Hydro is committed to system wide monitoring (i.e. CAMP) and project specific biophysical monitoring (i.e. Keeyask). It should also be recognized that RCEA is in progress and will identify, with the Province and communities, knowledge gaps that may exist in the downstream area.

“Clearly, not everything can be studied, because costs are significant and time is limited. But there needs to be an orderly process of identifying gaps, setting priorities and establishing next steps, not ad hoc or random. We believe that RCEA is a good step in that process. A well-defined licence renewal process would be the next step.”

Mr. David Cormie, CEC Hearing Transcript, April 16, 2015, Page 2717

### **Lake Winnipeg Compensation**

Manitoba Hydro recognizes that people have raised Lake Winnipeg concerns with water levels, water quality, erosion, the fishery and Netley-Libau Marsh. Manitoba Hydro fundamentally disagrees with several hearing participants on the causation of these issues. While many have demanded compensation as they feel LWR has negatively affected Lake Winnipeg, Manitoba Hydro believes LWR provides a benefit to Lake Winnipeg. The two thoughts are inherently at odds with each other and although further study is recommended, at the moment there is little common ground and, as stated earlier, no persuasive evidence to support the argument that LWR has contributed the issues around Lake Winnipeg has been provided.

“Just a few final questions. Mr. Cormie, in your closing comments yesterday, you noted that there had been: "Negative impacts to the downstream as a result of the project." Does Manitoba Hydro acknowledge that upstream communities, residents and resource users have also suffered negative impacts?”

Mr. Cory Shefman, CEC Hearing Transcript, March 11, 2015, Page 294

“No, we don't acknowledge that.”

Mr. David Cormie, CEC Hearing Transcript, March 11, 2015, Page 294

One of the goals of LWR was to reduce Lake Winnipeg shoreline flooding and that goal has been achieved as demonstrated in Appendix 4 of the LWR Plain Language Document. LWR was not designed to eliminate high inflows or erosion, both of which occur naturally. With LWR in place, Lake Winnipeg still follows a typical seasonal pattern, water levels are within the pre-LWR water levels and the water level still fluctuates. Regulation has not increased the average Lake Winnipeg water level and has lowered peak Lake Winnipeg water levels by increasing outflow. For example, peak levels in 2011 would have been 1.7 to 2.6 feet higher and peaking as high as 719.5 feet with LWR removed. Therefore, Manitoba Hydro considers the operation of LWR as a benefit to Lake Winnipeg stakeholders.

In contrast, compensation has been paid in the downstream area since Manitoba Hydro agrees that LWR has negative effects in the downstream area. For example, LWR affects the seasonal patterns and variability of water levels on Cross Lake and increases flooding in some high-flow years. In low-flow years, LWR reduces the flow out of Lake Winnipeg into Cross Lake in the summer and increases it in the winter. This is a reversal of the natural seasonal pattern.

Five CEC experts reviewed Lake Winnipeg specific topics for the Commission. While none of the CEC experts proposed compensation for Lake Winnipeg stakeholders, some recommendations from the experts were for further study and operational changes. Manitoba Hydro disagrees with recommending operational changes at this time (as discussed in the Studies, Monitoring and Follow-up section on page 14 of this final argument) and a determination of which studies of which issues should be undertaken ought to follow the completion of RCEA and include consideration of the work being done by CAMP.

With regards to water quality, erosion and water levels, some of the CEC experts are closely aligned with Manitoba Hydro's positions. Mr. Raymond Hesslein was hired by the CEC to assess the impact of outflow regulation on Lake Winnipeg nutrient regime and algal productivity in the lake. In his report to the Commission, he stated the following:

"I conclude that the regulation of the outflow of Lake Winnipeg has had a minimal effect on the level of the lake. The main changes are decreased peak levels (high and low). The character (seasonal patterns) of the outflow has changed over the period of record (1913-present) but this has been mainly due to the regulation of the major inflows to the lake not the use of the outflow regulation."

Mr. Raymond Hesslein, Water Level Regulation in the Lake Winnipeg Basin and its Effect on Nutrient Status of the Lake Report, January 22, 2015, Page 7

"...regulation will not significantly effect the nutrient concentrations, nutrient status, or algal conditions in Lake Winnipeg."

Mr. Raymond Hesslein, Water Level Regulation in the Lake Winnipeg Basin and its Effect on Nutrient Status of the Lake Report, January 22, 2015, Page 11-12

Dr. Harvey Thorleifson described the effect of isostatic rebound on Lake Winnipeg shoreline erosion and indicated it was the major factor for erosion. In his testimony he stated the following:

"The Lake Winnipeg outlet is thus rising relative to the rest of the basin. Lake Winnipeg, therefore, is expanding due to isostatic rebound. And the final bullet in my summary is that ongoing shoreline erosion on Lake Winnipeg is natural. This was known because of the steady progress of shoreline erosion in pre regulation time."

Dr. Harvey Thorleifson, CEC Hearing Transcript, March 16, 2015, Page 698

"I also noted the suggestion from Manitoba Hydro that it's their understanding that they have not increased shoreline erosion rates by their activities, and I have no discomfort with that

statement given my familiarity with the way that shoreline erosion has progressed persistently over the entire period of post glacial time, given the measurements that were made in pre regulation time, given what we infer to be taking place in terms of differential uplift, and in terms of our measurements from GPS, from gravity and from other measurements, we can see that those uplift rates are ongoing.”

Dr. Harvey Thorleifson, CEC Hearing Transcript, March 16, 2015, Page 700

“And so indeed, isostatic rebound is a natural aspect of Lake Winnipeg that's driving shoreline erosion.”

Dr. Harvey Thorleifson, CEC Hearing Transcript, March 16, 2015, Page 722

In an exchange with Dr. Goldsborough about the factors affecting the health of the Netley-Libau Marsh, Commissioner Suek effectively addressed the cause-effect question:

“I guess I'm kind of looking at cause and effect. Is Lake Winnipeg Regulation the cause of the problem or is it the climate? I mean the fact that in the last number of years we have had a very wet climate, that levels haven't fallen. As I understand it, Manitoba Hydro has been at maximum discharge for quite a while now, so it just isn't going down to that level because we have just -- the climate is just too wet.”

Ms. Beverley Suek, CEC Hearing Transcript, March 17, 2015, Page 954-955

“You know, I understand it needs fluctuation, but it seems to me that post regulation, there has been fluctuations too. And the only we're not getting fluctuations is more about climate than it is -- I mean because you made the four factors that contribute to the marsh and one of them you said was Lake Winnipeg Regulation. I'm not sure how you make that cause and effect to Lake Winnipeg Regulation.”

Ms. Beverley Suek, CEC Hearing Transcript, March 17, 2015, Page 957-958

“Well, let me say this. What I'm referring to is the lake level. And I think the lake level has been the contributing factor. To what extent that is driven by the management of the lake, I will be the first to admit I am not an expert.”

Dr. Gordon Goldsborough, CEC Hearing Transcript, March 17, 2015, Page 958

Some of the Lake Winnipeg stakeholders and Manitoba Hydro will continue to disagree. Nonetheless, Manitoba Hydro will continue to discuss Lake Winnipeg issues with stakeholders as part of the Lake Winnipeg Engagement Program. Manitoba Hydro believes these activities provide an opportunity to increase the public's understanding of LWR and its influence on the lake and downstream waterways.

“And the reason we don't provide compensation and mitigation on Lake Winnipeg is because the project itself provides a benefit to people around Lake Winnipeg by reducing the magnitude

- - like, how high the water gets during a flood and for how long it floods. That as one of the reasons – it was a key reason why the project was built, actually.”

Mr. Dale Hutchison, CEC Hearing Transcript, January 27, 2015, Page 21

### **Aboriginal Traditional Knowledge (ATK)**

Several Participants asked questions about Manitoba Hydro’s use of ATK in our evaluation of LWR and in preparation of the LWR Plain Language Document.

Manitoba Hydro values ATK and has used it extensively in negotiating downstream agreements and creating and implementing appropriate programming. ATK has been obtained through discussions and negotiations with various communities and resource user groups, through the completion of specific studies (e.g., Split Lake Post Project Evaluation, Cross Lake Environmental Impact Assessment), and through staff who regularly communicate with downstream communities, First Nations and resource user groups. Proper scoping and evaluation is required to determine where there may be opportunities for additional and future ATK studies.

LWR provides flood relief benefits to people living around and using Lake Winnipeg, therefore Manitoba Hydro has not funded ATK studies upstream on Lake Winnipeg. There are a number of factors affecting the ecosystem health of the lake and Manitoba Hydro is considering support for ATK on Lake Winnipeg similar to its support of other research, policy, stewardship and education initiatives on the lake. The Lake Winnipeg Indigenous Collective (LWIC) may play a key role in the coordination of ATK efforts. Proper scoping and evaluation is required for any future ATK studies.

“We are also encouraged by the Lake Winnipeg Indigenous Collective and we hope to discuss ATK with them in the near future.”

Mr. David Cormie, CEC Hearing Transcript, April 16, 2015, Page 2719

Not only does Manitoba Hydro recognize that the LWIC is a positive step towards incorporating ATK into stewardship’s efforts on Lake Winnipeg, several Participants in the CEC process have had representatives attend the initial meeting of LWIC. Mr. Gould from the Interlake Reserves Tribal Council agreed that it is a good opportunity for the collection of ATK.

“And I conclude that the Lake Winnipeg Indigenous Collective will be a good, specific opportunity for voices from the Aboriginal communities around Lake Winnipeg to be heard, and for you all to draw on your knowledge, your ATK, with respect to the issues that Lake Winnipeg faces, including things like climate change, the algae problem in the lake, and indeed regulation of the lake?”

Mr. Doug Bedford, CEC Hearing Transcript, March 25, 2015, Page 1612

“Yes, that's one of the main goals, like I said, to be informed on what we can contribute as well before this lake comes to its last days and we have no more living lake, I guess I could say.”

Mr. Derek Gould, CEC Hearing Transcript, March 25, 2015, Page 1612-1613

#### 4. CONCLUSION

“Manitoba Hydro is committed to sustainable development practices. That commitment was set in company policy in 1993. That commitment recognizes the interconnected nature of the environment, society and the economy. And today all of our new projects take into account the sustainability principles. Projects such as Lake Winnipeg Regulation were conceived and built without the benefit of concept of sustainability, which makes it difficult to measure the project against those principles. Regardless, sustainability principles inform and guide many of our activities as we work in partnership with affected communities to resolve the outstanding issues associated with our legacy projects, such as Lake Winnipeg Regulation. One aspect of that is in the area of global responsibility, where LWR was ahead of its time. Hydroelectric generation is renewable, which makes us the envy of many as we face the challenge of climate change. But in many other aspects we have to recognize that the project can't be unbuilt and the environmental impacts undone. But that doesn't mean that we won't commit to doing what we can do in the areas of remedy, conservation, access to information, public participation, understanding and respect.”

Mr. David Cormie, CEC Hearing Transcript, March 10, 2015, Pages 169-170

Manitoba Hydro believes that the arguments we have outlined here provide a good foundation for moving forward. We ask that this Commission recommend to the Province that it take the steps necessary to define an appropriate process for *Water Power Act* Licence renewals that will allow Manitoba Hydro to strike the modern balance. This process needs to build on existing legislation and the ongoing efforts of the Regional Cumulative Effects Assessment and the Coordinated Aquatic Monitoring Program.

*This page is intentionally left blank*

## **APPENDIX A**

**Manitoba Hydro's Response to Recommendations made by  
CEC Hearing Participants, Presenters, CEC Experts and the Public**

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
1	Various	ATK	Recommend that ATK (Aboriginal Traditional Knowledge) be used downstream for any LWR decisions	Already addressed/ Future consideration	Manitoba Hydro values ATK and has used it extensively in negotiating downstream agreements and creating and implementing appropriate programming. ATK has been obtained through discussions and negotiations with various communities and resource user groups, through the completion of specific studies (e.g., Split Lake Post Project Evaluation, Cross Lake Environmental Impact Assessment), and through staff who regularly communicate with downstream communities, First Nations and resource user groups. There are practical reasons why it may not be possible to acquire ATK input for day to day operations. However, proper scoping and evaluation is required to determine where ATK would be appropriate in shaping future licensing amendments and renewals.
2	Various	ATK	Recommend that ATK be used upstream for any LWR decisions	Future consideration	LWR provides flood relief benefits to people living around and using Lake Winnipeg, therefore Manitoba Hydro has not funded ATK studies upstream on Lake Winnipeg. There are a number of factors affecting the ecosystem health of the Lake and Manitoba Hydro is considering support for ATK on Lake Winnipeg similar to its support of research, policy, stewardship and education initiatives on the Lake. The Lake Winnipeg Indigenous Collective (LWIC) may play a key role in the coordination of ATK efforts. There are practical reasons why it may not be possible to acquire ATK input for day to day operations. However, proper scoping and evaluation is required to determine where ATK would be appropriate in shaping future licensing amendments and renewals.
3	Public	Compensation	Hold Manitoba Hydro responsible for losses incurred arising from the damages to properties and persons and the environment along the Winnipeg River as a condition of final licensing	Out of scope	The Winnipeg River is not affected by LWR.
4	Public	Compensation	Black River First Nation residents requested compensation for a variety of issues including haylands, youth recreation, swimming pool and loss of economic opportunities.	Manitoba Hydro disagrees	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR and LWR has had no negative impact in the Black River area.

Manitoba Hydro's Response to Recommendations made by CEC Hearing Participants, Presenters, CEC Experts and the Public

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
5	Public	Licensing	<p>1) It is proposed that the CEC recommend such detailed technical investigations be undertaken prior to, or as part of, Manitoba Hydro's application for its Permanent License in advance of 2026. As part of this investigation, significant funds should be allocated to communities such as Black River First Nation to conduct their own technical research as well as traditional knowledge and oral history studies.</p> <p>2) It is proposed that the CEC recommend a budget several times higher for the purpose of research in advance of Manitoba Hydro's application for a Permanent License.</p>	Future Consideration	Manitoba Hydro is considering support for ATK on Lake Winnipeg similar to its support of research, policy, stewardship and education initiatives on the Lake. The Lake Winnipeg Indigenous Collective (LWIC) may play a key role in the coordination of ATK efforts. Proper scoping and evaluation is required for any future ATK studies.
6	Public	Compensation	It is proposed that the CEC recommend in advance of the Permanent License application that Manitoba Hydro recognize its historic violations of Treaty and Aboriginal rights, to recognize the damage it has caused on the Winnipeg River, to recognize that connection to LWR, and to enter into meaningful compensation and/or assistance talks with Black River First Nation in advance of its application for its Permanent License.	Manitoba Hydro disagrees	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR and LWR has had no negative impact in the Black River area.
7	Public	Compensation	Provision of potable water for all communities, especially for LWR affected communities	Government	Potable water concerns raised by the NFA communities were resolved between parties.
8	Participant	Compensation	Manitoba Hydro compensate Keewatinook Fishers for loss of property caused by high water levels.	Manitoba Hydro disagrees	Peak and average water levels on Lake Winnipeg have been reduced as a result of LWR. Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR.
9	Participant	Compensation	Manitoba Hydro fund a gathering for First Nations who fish and use Lake Winnipeg, to include the Keewatinook Fishers, to work together toward a Lake Winnipeg Charter that is similar to the Great Lakes Commons Charter.	Future consideration	The Lake Winnipeg Indigenous Collective has potential to provide a similar forum. Creation of another entity for this purpose would be duplicitous.
10	Participant	Compensation	The Fishermen's Co-operative be formally recognized in terms of negotiations and communications with Manitoba Hydro. Although the Fishermen's Co-operative understands that the master implementation agreement cannot simply be amended to include them, the Fishermen's Co-operative believes that an explicit and emphatic recommendation from the CEC, that consultation and communication be required for all stakeholders (including those not signatory to the master implementation agreement).	Already Addressed	Manitoba Hydro has a master implementation agreement with Norway House First Nation. Funds were provided to fishermen as part of that settlement. Manitoba Hydro continues to meet with the Co-operative to discuss issues unique to them.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
11	Participant	Compensation	Write a letter to Hydro, given their evidence they provided to this committee, to show the past settlements of what they can protect or prescribe that they actually settled with the Métis people.	Already Addressed / Not Required	<p>Manitoba Hydro has a number of settlements with communities downstream of Lake Wpg where Métis reside and receive benefits. The agreements for Cross Lake Community Council and Nelson House Community Council can be found on the Manitoba Hydro website (<a href="http://www.hydro.mb.ca/coummunity/aboriginal_relations/aboriginal_agreements.shtml">www.hydro.mb.ca/coummunity/aboriginal_relations/aboriginal_agreements.shtml</a>).</p> <p>The Norway House Community Council Agreement has not yet been finalized and is not available. Manitoba Hydro has reached over 50 Adverse Effects Agreements with First Nations, communities, resource user groups and individuals addressing LWR and other hydro-electric development issues throughout the LWR downstream area. These agreements are not publically available and Manitoba Hydro does not have the consent of the other parties to provide these agreements.</p>
12	Participant	Compensation	The Métis should be involved in mitigation measures in this project. (the agreement (Turning the Page) has segments that give the MMF the opportunity to visit past issues, and go back and see how they can be reflected or corrected in the future).	Concur	Manitoba Hydro concurs that the new agreement gives MMF the opportunity to discuss past issues and potentially negotiate further mutually agreeable settlements.
13	Participant	Compensation	The licence must set deadlines for concluding the revenue sharing and water rental talks and reaching agreement with Pimicikamak	Government	Under the Process Agreement with Pimicikamak, revenue sharing and water rentals discussions may be considered. This should not be a condition of the licence as parties cannot be compelled to reach an agreement.
14	Public	Compensation	Treaty 2 Territorial Alliance recommends various compensatory measures on a "no net loss basis".	Manitoba Hydro Disagrees	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR.
15	Various	Compensation	Compensation for losses due to erosion and high water levels on Lake Winnipeg including revenue sharing, property buy out or free hydro	Manitoba Hydro disagrees	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR. Peak and average water levels on Lake Winnipeg have been reduced as a result of LWR. Lake Winnipeg property owners have benefitted from lower peak levels. These individuals, along with all rate payers in Manitoba, enjoy low energy rates.

Manitoba Hydro's Response to Recommendations made by CEC Hearing Participants, Presenters, CEC Experts and the Public

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
16	Public	Compensation	Move the homes out of the flood zones (Peguis First Nation)	Out of scope	The flood zones in the Peguis First Nation area are not affected by LWR or by other Manitoba Hydro operations.
17	Participant	Consultation	Articulate the role and connections between s.35 consultations and the <i>Environment Act</i> and the <i>Water Power Act</i> & recognize and reaffirm treaty and Aboriginal rights. <b>(Short-Term Recommendation #6 to be completed within two to three years).</b>	Government	Clarifying the roles and connections of between Section 35 consultation and Manitoba's legislative statutes would be helpful.
18	Participant	Consultation	Meaningful Ongoing Engagement <b>(Long-Term Recommendation #2 to be completed within seven years).</b>	Concur	Manitoba Hydro endeavours to engage stakeholders in meaningful and ongoing dialogue. Though Manitoba Hydro concurs that it should attempt to dialogue with those affected within seven years, there is no end date as this is an ongoing activity.
19	Public	Consultation	Annual relationship with Manitoba Hydro; Develop, in partnership with Hydro and the Province of Manitoba, environmental monitoring programs, rehabilitation programs, protection, conservation (Lake Winnipeg).	Concur	Manitoba Hydro endeavours to engage stakeholders in meaningful and ongoing dialogue. Manitoba Hydro is exploring further possibilities of First Nation involvement and has helped fund the inaugural meeting of the Lake Winnipeg Indigenous Collective.
20	Public	Consultation	That the Manitoba Government ensure that on behalf of the Crown, it consult with the Treaty 2 Territorial Alliance on a regular basis with regard to the collective rights and interests of the Alliance First Nations, as well as with any individual First Nations whose reserve lands and communities will be impacted negatively by Manitoba Hydro's operation of the licence.	Government	Government decision Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR.
21	Public	Consultation	Recommend that as a condition of license, Manitoba Hydro must work closely with the Treaty 2 Territorial Alliance, consulting with it on at least a quarterly basis, accommodating its reasonable requests, compensating it for any damages to the ecosystems of the lake caused by the raising and lowering of water levels, and establishing a functional close working relationship between it and the First Nation. Obviously Manitoba Hydro should provide the Alliance with the resources necessary for it to engage in this manner on an on-going basis.	Manitoba Hydro Disagrees	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR. Manitoba Hydro continues to engage in dialogue with communities around Lake Winnipeg. The Lake Winnipeg Indigenous Collective may be a resource to gather and further understand the value of ATK in understanding issues facing the health of Lake Winnipeg.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
22	Presenter	Governance	<p>As an example to learn from, we point to the Columbia River Basin and the Murray-Darling Basin, though we also recognize that each basin is different and that Lake Winnipeg may require its own model. However, based on our research on large-basin management and IWRM, we are able to recommend that several key characteristics be included:</p> <ul style="list-style-type: none"> <li>• The incorporation of management for a broad range of ecosystem services (e.g., nutrient capture, water storage, climate regulation and hydro production) in the mandate of any organization charged with directing basin management.</li> <li>• Broad and meaningful collaboration and consultation with a range of stakeholders throughout the basin, and incorporation of inputs into decision-making on basin management.</li> <li>• A sound basis in scientific evidence, possibly with independent scientific review of planning.</li> <li>• The development of goals, objectives, timelines and targets (stakeholders should be engaged in shaping these goals).</li> </ul> <p>Monitoring of progress toward goals and adequate funding to conduct this monitoring.</p> <p><input type="checkbox"/> The incorporation of adaptive mechanisms into planning (i.e., ensuring there is flexibility to alter course if desired outcomes are not being met).</p>	Government	The Province may or may not wish to incorporate adaptive mechanisms into planning. Manitoba Hydro supports a basin wide management strategy. Proper scoping would be required prior to implementation.
23	Presenter	Governance	<p>In order to achieve large-basin management planning, we recommend the creation of a basin-wide, transboundary body with a mandate to consider multiple ecosystem benefits in the basin (e.g., nutrient capture, climate regulation, water purification, water storage, energy, fisheries, tourism, recreation and hydroelectric power generation) or the use of an existing entity to perform this function. We emphasize that Manitoba Hydro can be only one part of this solution, and that involvement from provincial governments (with Manitoba as a leader), state, federal and municipal governments is essential, along with inclusion of other affected and interested stakeholders (agriculture, other energy producers, industry, First Nations, non-governmental organizations, academics, etc.)</p>	Government	This recommendation would require significant effort on the part of Manitoba to motivate the participation of other jurisdictions.
24	Presenter	Governance	<p>We recommend that financial tools and instruments be used to increase water management for ecosystem service provision. Hydro is an important service we should continue to produce, but we suggest that increased watershed management for other ecosystem services would not only help address concerns raised in the CEC review process (e.g., nutrient levels, water flows and climate change concerns), but would also produce additional ecosystem service benefits such as carbon sequestration, new economic opportunities and social benefits. Various financial approaches could encourage ecosystem service provision. Basins profiled in section 5 of this paper illustrate how these approaches are being used in other jurisdictions. We propose the following as possibilities to consider:</p> <ul style="list-style-type: none"> <li>• Water quality trading.</li> <li>• Payment for ecosystem services.</li> <li>• Ecosystem service valuation (to provide the rationale for investment).</li> <li>• Funding ecosystem service-focused management through approaches such as that used by the Columbia River Basin, where some share of hydro revenues goes to support management and where joint venture projects with watershed management organizations produce revenues that are used in part to protect and enhance ecosystem services.</li> </ul>	Government	Government policy decision
25	Presenter	Governance	<p>We recommend that Manitoba Hydro and other decision-makers view the land and ecosystems upstream as potential "ecological infrastructure" that can be managed for such benefits as improved water quality IISD Submission to the Manitoba Clean Environment Commission February 2014 Strategic Large-Basin Management for Multiple Benefits (complementing human-built treatment plants) and water storage (complementing concrete storage structures).</p>	Government	The province may or may not wish to participate in this concept for ecosystem purposes.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
26	CEC Expert	Governance	Strengthening Governance and Management ... Manitoba has limited policies and regulations to manage shoreline hazards and guide new development.... In other jurisdictions ... agencies develop legislation, policies and programs to regulate shoreline development, identify and map shoreline hazards, and protect natural resources.... Rural Municipality of Victoria Beach (RMVB) recently developed their own Shoreline Management Plan (Baird, 2014) that quantifies hazards throughout the community and selected a management approach for the various shoreline reaches based on the risks, usage of local beaches, objectives for growth in their Development Plan and extensive community consultation. The SMP will ultimately be integrated into the Development Plan and have the force of the RMVB Council.... Moving forward, the RMVB model is one option that could be adopted elsewhere to map coastal hazards and develop comprehensive solutions to manage shorelines in Manitoba. An alternative or complimentary approach would be enhancing the policy and legislative framework of the Provincial government....	Government	Government policy decision
27	Participant	Governance	A multi-party decision-making protocol, in accordance with 7.1.3 of the Process Agreement, must be established by Jan 1, 2017. The licence for LWR should require the establishment of a water governance board for the basin as a whole. The intent would be to pursue a much more comprehensive assessment of the effects of LWR up and downstream, and discuss what actions in the upper watershed could help to remediate problems such as excess nutrient input into the system, and excess run-off. This board would also focus on ongoing operations of LWR and other control infrastructure in the system to attempt to achieve a better balance of positive and negative effects of river regulation throughout the system.	Manitoba Hydro Disagrees	Manitoba Hydro disagrees that this should be a licence condition. Manitoba Hydro requires operational control of the system to guarantee the security of the electrical supply. Under the Process Agreement with Pimicikamak, discussions may be considered regarding this issue. Any potential decision making framework requires further dialogue, inclusive of many parties and stakeholders.
28	Participant	Governance	Establishment of a water governance board for the water basin, which includes the watershed of Lake Winnipeg within Manitoba, and the Nelson and Churchill Rivers as a whole, with meaningful input into operational decision-making by all affected parties, including Pimicikamak, and systematic review of the water governance regime of Manitoba with a comparative look at other jurisdictions in an attempt to modernize the current legislation, possibly using the analysis done by the CAC as a starting point.	Future Consideration	Under the Process Agreement with Pimicikamak, discussions may be considered regarding this issue. Any potential decision making framework requires further dialogue, inclusive of many parties and stakeholders. Manitoba Hydro agrees that a modern process is required and requires Provincial leadership.
29	Various	Governance	Establish Lake Winnipeg board including representation of First Nations	Government	The purposes and objectives of a Lake Winnipeg board would need careful consideration. Any potential decision making framework requires further dialogue, inclusive of many parties and stakeholders.
30	Public	Government	Limit the transfer of existing Crown land to private ownership in areas where potential Hydro development may occur with broader parameters than currently exist at currently impacted locations.	Government	Government policy decision
31	Public	Government	Mapping of the entire historical and present shoreline of Lake Winnipeg - The width of the lake should be measured to document its expansion (BRFN-001, pg 6)	Already Addressed	Federal NTS (National Topographic Survey) maps are available for this purpose.
32	Public	Government	Lake Winnipeg monitoring body, that is external of Manitoba Hydro, and the federal and provincial governments	Government	CAMP, which includes Manitoba and Manitoba Hydro, monitors a variety of environmental parameters on Lake Winnipeg. Transferring to external monitoring body would be a government decision.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
33	Public	Government	That the government deal with the direct infringement on Aboriginal Treaty Rights	Government	This is a government responsibility under Section 35 of the <i>Constitution Act</i> .
34	Public	Government	Manitoba Hydro and the province should provide for the expansion of the habitable reserve because of loss of land (Lake Winnipeg).	Government	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR.
35	Public	Government	Creation of an alternative upstream storage capacity	Government	The Province may or may not wish to explore this concept for flood reduction on Lake Winnipeg.
36	Public	Government	Recommend that the Lake Winnipeg Churchill Nelson River Study Board (LWCNRSB) recommendations be followed (in particular the erosion predictions and the compensation recommendation)	Already addressed/Not required	Manitoba Hydro does not believe that LWR has caused erosion on Lake Winnipeg. The LWCNRSB projected that water levels on LW would be higher because of LWR, and therefore erosion would increase. However, Manitoba Hydro has shown that peak and average levels have been lower with LWR.
37	Participant	Government	<p>Engagement on the CEC Recommendations (<b>Short-Term Recommendation #1 to be completed by fall or early 2015</b>)</p> <p>It is recommended that the Minister of Conservation and Water Stewardship employ his discretionary power under s. 6(5) of the Water Power Regulation to designate the Clean Environment Commission to present its findings to the 18 communities where hearings were held.</p> <p>The purpose of this engagement should be to:</p> <ul style="list-style-type: none"> <li>• receive the input of affected communities on the CEC recommendations to the Minister</li> <li>• identify knowledge gaps and uncertainties in the CEC recommendations</li> <li>• build trust and foster productive working relationships among policy communities surrounding Lake Winnipeg</li> </ul> <p>To engage those who are directly affected living around Lake Winnipeg. To receive theft feedback on the recommendations presented to the Minister. To clarify and scope priority issues. To identify missing research and recommendations.</p> <p>This additional information could be presented to the Minister in an addendum.</p>	Government	Government decision

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
38	Participant	Governance	<p>Establish a Multi-Party Task Force on Water Governance (<b>Short-Term Recommendation #2 to be completed within two years</b>)</p> <p>A Multi-Party Task Force on Water Governance with representation from:</p> <ul style="list-style-type: none"> <li>• a Northern Indigenous community</li> <li>• a Southern Indigenous community</li> <li>• the Métis Nation</li> <li>• a water scientist</li> <li>• a representative of the rate payer or tax payer interest</li> <li>• an industry representative (i.e. from the Chamber of Commerce)</li> <li>• an individual who has an understanding of water governance and management who is familiar with bridging the gap between Western and traditional knowledge</li> </ul> <p>Each organization or community should be responsible for appointing its own representative. Conservation and Water Stewardship should appoint the independent water scientist and water governance experts. A representative of Conservation and Water Stewardship should be appointed as a non-voting member of the Task Force.</p> <p>This Task Force should be adequately staffed with at least four members, including but not limited to a lawyer and public liaison expert.</p> <p>The Task Force will engage all the policy communities surrounding the watershed (including Manitoba Hydro) on an appropriate watershed governance structure for Manitoba)</p>	Government	<p>Instead of another group to deal with Lake Winnipeg issues, building on existing efforts may be a better option. Any potential decision making framework requires further dialogue, inclusive of many parties and stakeholders.</p>
39	Participant	Government	<p>Make public statement on whether Manitoba Hydro has Complied with LWR Interim License and Set Clear Expectations for the Future (<b>Short-Term Recommendation #3 to be completed within one year</b>)</p> <p>The Minister of Water Stewardship should immediately make a public statement about whether Manitoba Hydro has complied with the terms of the interim license and the basis for that determination.</p> <p>In the event the Minister finds the interim license has been complied with, consideration should be given to:</p> <ul style="list-style-type: none"> <li>• whether the final license should be extended for a period that does not run out to 2026 (s. 45 of Water Power Regulation 25/8).</li> <li>• whether additional terms and conditions should be applied pursuant to s. 44 of Water Power Regulation 25/8 including:</li> <li>• enhanced monitoring and reporting as recommended in both the Bipole III and Keeyask hearings</li> <li>• a provision allowing for the incorporation of additional restrictions on the license in the event of an Environment Act or CEA review</li> <li>• a provision to amend the license in the event of a material change in economic, social or environmental circumstances</li> <li>• a provision to review the license every five years (including i.e. safety, effectiveness, conservation purpose etc.)</li> </ul> <p>Research and monitoring might relate to:</p> <ul style="list-style-type: none"> <li>• Assessment of priority downstream issues as identified by communities</li> <li>• Assessment of ecological flows options that might better balance economic, reliability, social and ecological interest</li> <li>• Independent review analogous to that undertaken Laurentian Great Lakes on impact of compression of lake level variability on wetland in Lake Winnipeg including Netley-Libau</li> <li>• Independent review analogous to that undertaken on Laurentian Great Lakes on the impact of LWR on erosion</li> <li>• Assessment of Lake level variation options that might better balance flood control, economic, reliability, social and ecological interests</li> </ul>	Government	<p>Manitoba Hydro would welcome the confirmation that it has complied with the terms of its licence.</p> <p>Manitoba Hydro disagrees that a shorter term licence would be beneficial.</p> <p>Adding terms to the licence with respect to monitoring, the <i>Environment Act</i>, provisions about social and ecological aspects are more correctly addressed via other instruments. The Regional Cumulative Effects Assessment (RCEA) is ongoing. It is premature to consider the requirement for an <i>Environment Act</i> licence as this statute is under review and may be amended.</p>

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
40	Participant	Government	<p>Clarify roles and responsibilities for licensing and assessment in Manitoba (<b>Short-Term Recommendation #4 to be completed within 9 to 12 months</b>)</p> <p>The Minister should explain the relationship between key legislative elements as well as administrative duties related to the <i>Water Protection Act</i>, the <i>Environment Act</i> and the <i>Water Power Act</i>.</p> <p>For example, consideration should be given to:</p> <ul style="list-style-type: none"> <li>• who is responsible for environmental assessment and protection relating to legacy projects</li> <li>• who is responsible for public processes under the WPA</li> <li>• creation of a legislative mechanism that allows the public to access reasons when a pre-existing development is being considered for possible review under s. 10(2), 11(6) and 12(2) of the <i>Environment Act</i></li> <li>• more express connections to other natural resource and environmental legislation (<i>Water Power Act</i>, <i>Forestry Act</i>, <i>Mining Act</i>, etc.)</li> <li>• articulating the responsibility for dam safety in the license</li> </ul> <p>The findings and lingering questions should be referred to the Multi-Party Task Force on Water Governance.</p>	Government	Government decision
41	Participant	Government	Host a Public Workshop on Ecological Flow Assessment ( <b>Short-Term Recommendation #7 to be completed in one year</b> ).	Government	A public workshop on Ecological Flow Assessment is premature at this time. Ecological flows should be considered along with other interests in a larger planning process.
42	Participant	Government	Regulate LWR under the <i>Environment Act</i> ( <b>Medium-Term Recommendation to be completed within five to seven years</b> ).	Government	It is premature to consider regulation under the <i>Environment Act</i> as this statute is under review and may be amended.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
43	Participant	Government	<p>Reform Manitoba's regulatory framework for water governance (<b>Long-Term Recommendation #1 to be completed within seven years</b>).</p> <p>The Minister of Conservation and Water Stewardship should modernize Manitoba's governance Regime.</p> <p>With advice from the Multi-Party Task Force on Water Governance, the Minister of Conservation and Water Stewardship should modernize Manitoba's governance regime by considering the following:</p> <p>(a) Greater coordination and clarity of the roles in its water governance and legislative scheme.</p> <p>(b) As integrated watershed approach to cumulative effects monitoring and follow-up that would include participation by different industrial users that impact the hydrological system. This should also include the requirement to develop and maintain an inventory of the Province's water resources (both quality and quantity).</p> <p>(c) The application of the Water Protection Act should be expanded to include Hydro operations. The Water Protection Act includes a number of robust provisions to protect ecosystems, but it is not clear that these provisions apply to waterpower operations.</p> <p>(d) The development of a clear and well coordinated process for scrutinizing license applications, including</p> <ul style="list-style-type: none"> <li>- criteria to assess previously unlicensed existing projects</li> <li>- opening licenses for review and amendment, and clarifying the process for re-licensing an express legislative authority to include the potential for short-term recommendation in licenses establishing license conditions consistent with management plans eliminating silos by making provision for the integrated review of operationally integrated facilities (i.e. CRD, LWR, Kelsey)</li> </ul> <p>(e) Incorporate the public trust doctrine into Manitoba's environmental and water resource legislation, including an obligation to actively protect, exercise ongoing supervisory control and revisit previous decisions in the face of change</p> <p>(f) Identify criteria for balancing economic, reliability, ecological and social values</p> <p>(g) Include the opportunity for participant funding for CEC investigations of legacy projects</p> <p>(h) Consider making express provision for ecological or environmental flows</p> <p>(i) Allow for habitat and wildlife protection in licensing conditions</p> <p>(j) Acknowledge equal space for Indigenous Legal Traditions and Traditional Knowledge</p>	Government	Government decision
44	Participant	Government	<p>Manage adaptively (<b>Long-Term Recommendation #3 to be completed within seven years</b>).</p> <p>That the Minister of Water Stewardship and Conservation adopt adaptive management as a key principle and implement changes to legislation including but not limited to the <i>Environment Act</i> and the <i>Water Power Act</i></p> <p>Based on the literature, a monitoring program should be flexible and have the capacity to deal with uncertainties.</p> <p>Legislative and regulatory frameworks should include specific provisions for adaptive management in follow up and monitoring programs.</p>	Government	Manitoba Hydro already practices adaptive management and is supportive of its use by the government. The RCEA may identify areas of further monitoring requirements.
45	Participant	Government	<p>Province Assume responsibility for shoreline management policies and legislation (<b>Long-Term Recommendation #4 to be completed within five to seven years</b>).</p> <p>That the Minister of Conservation and Water Stewardship in collaboration with other appropriate governmental departments develop legislation, policies and programs to regulate and map shoreline development and hazards.</p>	Government	Government decision

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
46	Participant	Government	Establish an Environmental Auditor ( <b>Long-Term Recommendation #5 to be completed within five to seven years</b> ). Manitoba should establish an Environment Auditor to monitor and report publicly on the Provincial government's efforts to protect the environment and foster sustainable development. The Environmental Auditor should serve as an Ombudsperson to receive complaints related to the environment, sustainable development, water governance etc.	Government	Government decision
47	Public	Government	Complete assessment and review of the issues raised in Berens River First Nation's position paper. Requesting that serious negotiation be funded by both levels of government to address the issues and concerns raised in the position paper. Positions are: - (1) BRFN have not given up the right to the waters of Lake Winnipeg - (2) BRFN opposes the granting of a final licence due to erosion, high inflows from Lake St. Martin, existing infrastructure is inadequate - (3) review policy rationale leading up to LWR - Manitoba Hydro is in conflict of interest to unilaterally regulate lake - (4) BRFN needs consultation	Government	(1) The issue of the rights to the waters of Lake Winnipeg is a government responsibility (2) Manitoba Hydro has submitted evidence that it has fulfilled the requirements in order to be granted a final licence for LWR; Manitoba Hydro does not control or affect outflows from Lake St. Martin (3) Government responsibility (4) Manitoba Hydro understands that the Manitoba is undertaking a section 35 consultation process.
48	Public	Government	Review this Fisheries Act and the quota (Cross Lake)	Out of scope	Government processes
49	CEC Expert	Government	Construction of a structure at the Netley Cut to regulate flow through it	Government	Government decision. Manitoba Hydro is working with marsh stakeholders in a Netley Libau Marsh restoration initiative being coordinated by the Lake Winnipeg Foundation. The initiative will consider restoration options for the marsh.
50	CEC Expert	Government	Encouraging retention of water on the agricultural landscape of the Red River Valley and beyond to reduce the need for catastrophic flood mitigation.	Government	Government decision
51	CEC Expert	Government	Resumption of dredging at the Red River mouth	Government	Government decision
52	Participant	Government	The application for the approval of final licences for Churchill River Diversion, Augmented Flow Program and Lake Winnipeg Regulation should include a review of the terms and conditions, an operational review and any required environmental impact assessments. Clear guidelines should be developed with respect to what constitutes conformance to and/or violation of the terms of the licences.	Government	CRD and Augmented Flow Program are out of scope.  Manitoba Hydro has provided supporting documentation to the Province that demonstrates that it is entitled to a final licence.
53	Participant	Government	The Government of Manitoba requires Manitoba Hydro to resolve all outstanding issues with regard to the Churchill River Diversion, the Augmented Flow Program and Lake Winnipeg Regulation. Following resolution of these issues, Manitoba Hydro should apply for the appropriate final licences for these three operations under The <i>Environment Act</i> and The <i>Water Power Act</i> as soon as possible.	Government	CRD and Augmented Flow Program are out of scope.  Manitoba Hydro has submitted evidence that it has fulfilled the requirements in order to be granted the final licence for LWR.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
54	CEC Expert	Government	Improving Resilience of Shoreline Communities. A resilient shoreline community has the capacity to sustain disturbances, such as erosion and flooding events during severe storms, and continue to provide the social, economic, and ecological services its citizens rely on for a healthy and prosperous life. Resilience planning has become a mainstream principle in the last decade to address shoreline hazards and vulnerabilities. As resilience increases, risks to our social, economic, and ecological systems attributed to shoreline hazards, decrease. Activities that would increase the resilience of a shoreline community to coastal hazards include enhancing shoreline development setbacks, artificially nourishing shorelines to address shoreline erosion (rather than shore parallel structures), and protecting shoreline ecosystem habitat and function.	Government	Government decision
55	Participant	Government	A comprehensive and longer-term plan and structure for implementing the Northern Flood Agreement must be made a licence condition for both CRD and LWR. This plan must be developed with the full participation of the Crown Parties, without pressure to extinguish existing rights under the NFA or Treaty 5.	Government	This recommendation was posed during Section 35 consultation. Manitoba Hydro disagrees that this should be a licence condition. Moving forward with NFA implementation is a key element in the 2014 Process Agreement with Pimicikamak and these discussions should be allowed to continue.
56	Public	Government	Managing LWR under the Environment Act	Government	Government decision
57	Public	Government	Dam safety should be one new inclusion in the licence.	Government	Manitoba Hydro has a dam safety program based on Canadian Dam Association Guidelines.
58	Various	Government	Assessment of the implementation of NFA provisions and have third party follow-up	Out of scope	Government decision
59	Public	Government	Completion of land transfer under the NFA within five years	Government	The NFA is a four party agreement. The process for land transfers is ongoing.
60	Public	Licensing	It is proposed that the CEC make the recommendation such that Lake Winnipeg levels need to be lowered, on a consistent basis.	Ill Advised	Any changes to the operating terms would require further study. LWR is meeting the goal of providing flood relief on Lake Winnipeg.
61	Public	Licensing	There must be no changes to the licence without thorough study of the potential downstream effects on York Factory First Nation. There can be no changes to the licence without consultation and informed consent of York Factory First Nation.	Concur	Manitoba Hydro agrees that no changes should be contemplated for the licence without thorough study and consultation.
62	Participant	Licensing	The licensing process must be clarified. All parties would have benefitted from a clearer idea of what our expectations were, what Hydro's expectations were. The government should for future renewals, ensure that the process is reconsidered.	Future Considerations	Manitoba Hydro agrees that renewal requirements should be clarified by the Province.
63	Participant	Licensing	Manitoba Hydro must acknowledge the fact that Lake Winnipeg Regulation has caused negative impacts upstream of Jenpeg and within the Lake Winnipeg basin. Whether these negative impacts are direct, indirect or corollary to downstream impacts, their existence must be recognized, whether as a condition of the licence or as a stand-alone recommendation from the CEC.	Manitoba Hydro disagrees	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
64	Public	Licensing	Licence reflect and respect the constitutional Aboriginal and Treaty rights	Out of Scope	Aboriginal and Treaty rights are entrenched in Canada's Constitution and have been clarified and interpreted in several important Supreme Court of Canada cases and other decisions. To ask the Province and/or Manitoba Hydro to affirm those important rights in a <i>Water Power Act</i> licence is not in Manitoba Hydro's view, appropriate nor necessary, nor of any legal force and effect.
65	Participant	Licensing	Formal revision over the next year of the licence condition that requires Manitoba Hydro to release all flow as fast as possible from Lake Winnipeg when it is above 715 ft. This condition represents a serious inequity. This condition, along with increased outflow capacity due to years in Cross Lake, and increased erosion in many parts of the downstream system. It also results in extended high waters throughout the summer. Climate change in future may exacerbate this problem.	Manitoba Hydro disagrees	Manitoba Hydro disagrees that a licence condition should be changed before extensive studies and consultation are completed. As well, if decisions are going to be made by Government, rather than Manitoba Hydro, there will be a shifting of the liabilities for those decisions.
66	Participant	Licensing	Licence conditions for full and mutually planned implementation of the Northern Flood Agreement maximizing Pimicikamak control, participation and employment to the extent possible. This would include assessment of the problems and challenges with implementation and how these specifically relate to interim licence conditions.	Future Considerations	The NFA is a four party agreement and any review, implementation and changes are required through a separate process that includes all signatories. The Process Agreement was negotiated in 2014 and there should be an opportunity for the parties to work under that new agreement. The recent appointment of a new arbitrator should facilitate those discussions.
67	Participant	Licensing	Manitoba Hydro to engage in additional studies, to honour agreements as conditions of its licence.	Already Addressed / Not Required	Manitoba Hydro will continue with monitoring/studies as outlined in agreements. Negotiation of new studies and funding for same should remain with Manitoba Hydro and the communities and not as a condition of the WPA licence. Parties cannot be compelled to agree.
68	Participant	Licensing	A licence condition be imposed requiring Manitoba Hydro to fully and in good faith implement the process agreement, including through the provision of necessary funding to carry out its objectives.	Already Addressed / Manitoba Hydro Disagrees	Manitoba Hydro is party to this agreement and contractually bound to carry out its terms. Licence conditions to abide by existing contractual arrangements are neither appropriate nor necessary.
69	Participant	Licensing	That a licence condition be imposed requiring Manitoba Hydro to balance downstream impacts, needs and objectives, in its operations decisions in a manner similar to other jurisdictions, for example, that water use planning in British Columbia.	Future Consideration / Manitoba Hydro Disagrees	Such a fundamental change in Water Power licensing requires leadership from the Province of Manitoba.  Manitoba Hydro disagrees that this should be a licence term.

Manitoba Hydro's Response to Recommendations made by CEC Hearing Participants, Presenters, CEC Experts and the Public

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
70	Participant	Licensing	That a licence condition be imposed that Manitoba Hydro fund and engage in the requisite environmental studies required to fully assess LWR impacts and potential ways to address them, including the impacts on downstream aquatic and riparian habitat, impacts on wildlife populations, impacts on land use traditional pursuits, culture, society and economy of Pimicikamak, and an evaluation of the results and measures taken to date to mediate or mitigate LWR impacts.	Future Consideration / Manitoba Hydro Disagrees	RCEA is currently assessing LWR impacts and knowledge gaps.  Manitoba Hydro disagrees that this should be a licence term.
71	Participant	Licensing	Before the licence is issued, I think we need to consult with Sagkeeng First Nation.	Government	The Province of Manitoba has a Section 35 process in place for LWR licence finalization.
72	Participant	Licensing	No changes to the operating conditions of Lake Winnipeg Regulation	Concur	Manitoba Hydro agrees that no changes should be contemplated for the licence without thorough study and consultation.
73	Various	Licensing	Final licence be deferred or not recommended	Manitoba Hydro disagrees	Manitoba Hydro believes it has fulfilled its obligations under the interim licence and is entitled to a final licence. The licence renewal is upcoming in 2026 (11 years).
74	Various	Licensing	Lower the upper end of the operating range to less than 715 ft (change the level at which maximum discharge is required)	Ill Advised	Any changes to the operating terms would require further study.
75	Various	Licensing	Recommendations that the final licence be a term less than 50 years	Government	The Province of Manitoba sets the licence term for each licence. Frequent licence renewal is expensive and would increase uncertainty associated with the dependable energy value of LWR.
76	Various	Licensing	WPA Licence to include stipulation that environmental monitoring continue as outlined in agreements	Already Addressed / Not Required	Manitoba Hydro will continue with environmental monitoring as outlined in agreements. Licence conditions to abide by existing contractual arrangements are neither appropriate nor necessary.
77	Public	Licensing	Riparian Rights will have to be considered in licence recommendations	Future Considerations	Riparian studies may be considered for future studies.
78	Public	Monitoring and follow-up	A third party, agreed to by all stakeholders, to monitor Lake Winnipeg's health and hold Manitoba Hydro accountable to mitigate all negative environmental impacts. The third party to provide a report every four years.	Government	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR. Provincial groups are currently monitoring the health of Lake Winnipeg.
79	Public	Monitoring and follow-up	Arm's length study in changing factors in contributing rivers' head waters	Out of scope	Agencies other than Manitoba Hydro have undertaken several studies that review water quality issues from upstream tributaries.
80	Public	Monitoring and follow-up	Annual environmental report for residents that use the water	Government	In 2011, the Province released the State of Lake Winnipeg report. It covered data from 1999 to 2007. An annual environment report has not been compiled to date.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
81	Public	Monitoring and follow-up	Studies on climate change, upstream storage, increasing the outflow and forecasting to be completed prior to a permanent licence granted	Manitoba Hydro disagrees	Manitoba Hydro disagrees that a delay in licensing would be premised on studies. Manitoba Hydro may find it valuable to study outflow changes and climate change further prior to licence renewal. Proper scoping and priorities would need to be evaluated prior to further studies. The government may want to look at upstream storage for effects on water quality.
82	Public	Monitoring and follow-up	Manitoba Hydro should be the top supporter for wetland restoration	Manitoba Hydro disagrees	Manitoba Hydro has funded wetland research. Manitoba Hydro may find it valuable to study wetlands further. Proper scoping and priorities would need to be evaluated prior to further studies.
83	Participant	Monitoring and follow-up	Manitoba Hydro must be in a better position to describe and mitigate the negative impacts of LWR. To do this, greater emphasis needs to be put on monitoring and mitigation, for example, of the Netley-Libau Marsh and wildlife populations around Lake Winnipeg. Therefore, it should be a condition of the licence that Manitoba Hydro engage in ongoing comprehensive monitoring and evaluation of all LWR impacts subject to regular sufficiency hearings before either the CEC or another appropriate body.	Manitoba Hydro disagrees	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR. No evidence to the contrary was provided.
84	Public	Monitoring and follow-up	(1) investigation done not only in the science of the ecology, but also in the humanity of the people that live in that ecology ... (2) investigations be put into health and safety so that the way that Manitoba Hydro operates and regulates Lake Winnipeg is considered in a more sensible, environmentally friendly, and most importantly humanly friendly, so that we can all be sustained on these lands	Future Considerations	RCEA is ongoing and is considering socio-economic effects. Proper scoping and priorities would need to be evaluated prior to further studies.
85	Public	Monitoring and follow-up	Recommends Manitoba Hydro or a joint partnership between Manitoba Hydro and MB to monitor erosion (with monthly or weekly helicopter trips) (Lake Winnipeg)	Manitoba Hydro disagrees	Lake Winnipeg shoreline erosion is driven by natural processes and LWR has not increased Lake Winnipeg shoreline erosion rates. Monthly or weekly helicopter trips would be cost prohibitive.
86	Public	Monitoring and follow-up	Comprehensive lidar study for Lake Winnipeg and its surrounding lands	Government	The Province may already have lidar information for areas around Lake Winnipeg. The Province may or may not find it valuable to complete lidar studies for areas that have not been completed, if any.
87	Participant	Monitoring and follow-up	More monitoring studies undertaken of the fishery in Playgreen Lake and the surrounding water bodies, and there shouldn't be a reliance on decades old studies, especially when it's contrary to their experiences every day with their decades of experience on the lake. Further to this, the commercial fisherman think that they should be consulted to assist with these studies. They can provide their own insights and observations over time, as well as make the studies more meaningful.	Future Considerations	CAMP does study Playgreen Lake and surrounding water bodies. Manitoba Hydro and Manitoba may find it valuable to study Playgreen Lake further. Proper scoping and priorities would need to be evaluated prior to further studies. Fisheries management is a Provincial responsibility.
88	Public	Monitoring and follow-up	Independent work is needed to find out how impacts of the lake interact and perhaps multiply when they are connected on regulation and lake levels.	Government	In 2011, the Province released the State of Lake Winnipeg report. It covered data from 1999 to 2007. An annual environment report has not been compiled to date.
89	Public	Monitoring and follow-up	Have Manitoba Hydro do the research in the communities and get a bit of understanding how communities are affected. Southern communities got scoped out.	Manitoba Hydro disagrees	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR. No evidence to the contrary was provided.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
90	Public	Monitoring and follow-up	Before a permanent licence is granted, an impartial environmental impact study is needed to establish the actual effects of regulation so that problems can be dealt with effectively.	Manitoba Hydro disagrees	Manitoba Hydro is entitled to the final licence. Further studies would be part of a properly defined licence renewal.
91	Public	Monitoring and follow-up	Mitigation plans to address the erosion of shorelines, the health of the lake water and monitoring of new invasive aquatic species (Lake Winnipeg)	Government	Provincial groups are currently monitoring the health of lake water and new invasive aquatic species. Erosion was reviewed by the Lake Winnipeg Shoreline Erosion Advisory Group in 1998. Manitoba Hydro does not provide mitigation for Lake Winnipeg and Manitoba Hydro continues to support Lake Winnipeg research.
92	Participant	Monitoring and follow-up	Requirements for more comprehensive investigation into the health of downstream aquatic and riparian habitats; wildlife population that are dependent upon these habitats; impacts on land use by Pimicikamak; and thorough evaluation of the results of remedial measures to date. There has been insufficient monitoring of the overall environmental effects downstream of Lake Winnipeg. This impedes the potential for investigation into how the management of operations could better balance ecological needs of the watershed.	Future Considerations	RCEA is ongoing and is considering socio-economic effects. Proper scoping and priorities would need to be evaluated prior to further studies.
93	Participant	Monitoring and follow-up	An expanded commitment to fish and wildlife research and monitoring with committed resources and increased Aboriginal participation should be included in the final licences.	Future Considerations	CAMP is a monitoring program that is separate from the WPA licence. Expanding research and monitoring could be considered. Proper scoping and priorities would need to be evaluated.
94	Public	Monitoring and follow-up	Long-term study of the total effect of Hydro activities on the community's shorelines and culture (Lake Winnipeg)	Manitoba Hydro Disagrees	Manitoba Hydro disagrees that Lake Winnipeg Regulation has had a negative affect on Lake Winnipeg shorelines.
95	Participant	Monitoring and follow-up	That the water gauges themselves be increased for the notification to communities for the water, and also to develop disaster plans for water levels that are coming into the areas. The disaster plans include the relocation of individuals for temporary basis and to provide food and shelter should they be removed from that area based on the water levels. (Lake Winnipeg)	Government	Water Survey of Canada operates current Lake Winnipeg gauges. Emergency measures planning is a Provincial responsibility.
96	Participant	Monitoring and follow-up	Notification on the water levels, if it's Manitoba Hydro or the province, we'd like to have that notification somehow. We have a website, sagkeeng.ca, you can send us an e-mail, and then we'll be notified that water is going to be up this week or this month, so we can notify people.	Already Addressed / Not Required	Licence term II of the Interim Licence requires Manitoba Hydro to provide a forecast of water levels and flows for the LWR project each month to the Minister of Conservation and Water Stewardship. In addition to providing this to the minister Manitoba Hydro posts a forecast of Lake Winnipeg water levels on its website.
97	Participant	Monitoring and follow-up	Some type of early warning system for Lake Winnipeg so that communities are aware of weather risks, wind risks, sudden temperature changes, whatever it takes to notify our communities.	Government	The Province provides severe wind alerts for Lake Winnipeg.
98	Participant	Monitoring and follow-up	Final licence to reflect Manitoba Hydro's mitigation or remedy of adverse effects identified as a result of monitoring in accordance with their Agreements, or otherwise, as required.	Manitoba Hydro disagrees	Manitoba Hydro is party to these agreements and contractually bound to carry out their terms. Licence conditions to abide by existing contractual arrangements are neither appropriate nor necessary.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
99	Participant	Monitoring and follow-up	Final licence to reflect that environmental monitoring is to continue, including as required under their Agreements, with a productive role for their Members	Manitoba Hydro disagrees	Manitoba Hydro is party to these agreements and contractually bound to carry out their terms. Licence conditions to abide by existing contractual arrangements are neither appropriate nor necessary.
100	Various	Monitoring and follow-up	Add more Lake Winnipeg gauges	Government	Water Survey of Canada operates current Lake Winnipeg gauges. Manitoba Hydro believes the current number of federal gauges is representative for the Lake Winnipeg lake level calculation.
101	Various	Monitoring and follow-up	Review of the way Manitoba Hydro reports lake levels	Already Addressed / Not Required	The Lake Winnipeg Shoreline Erosion Advisory Group had Baird & Associates verify methodology in 2000.
102	Public	Operations	Consideration of other uses of the lake be made in Manitoba Hydro's operational decisions (Lake Winnipeg)	Already Addressed / Not Required	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR. Manitoba Hydro already has a process to obtain stakeholder feedback on an ongoing basis and the information is considered in making operational decisions.
103	Public	Operations	A proper system that monitor lake levels to ensure it remains at a consistent level (Lake Winnipeg)	Already Addressed / Not Required	Water Survey of Canada operates Lake Winnipeg water level gauges. Manitoba Hydro believes the current number of federal gauges is representative for the Lake Winnipeg lake level calculation. It is not possible to operate to remove the effects of wind on local water levels around Lake Winnipeg. In 2000, the LWSEAG review of the LW water level reporting procedures found, "...there are no significant irregularities in how the water level information is being determined and reported by Manitoba Hydro."
104	Participant	Operations	<p><b>Short-Term Recommendation 5</b> - Instruct Manitoba Hydro to initiate an open, transparent process to further develop its hydrological model</p> <p>The Minister should instruct Manitoba Hydro to develop a hydrological model that would support the evaluation of alternative operating scenarios for Manitoba Hydro.</p> <p>This should be completed <b>within two to three years</b>.</p>	Future Consideration	Manitoba Hydro would participate in the development of any required model(s), however it is premature to begin now. Provincial leadership is required on any decision to pursue operational changes. Province of Manitoba would also need to define the process and additional stakeholder input would be required to define the scope before the appropriate model(s) could be selected.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
105	CEC Expert	Operations	Allocate flood and conservation storage system-wide (Long-Term recommendation)	Already Addressed / Not Required	Manitoba Hydro already has a suite of decision support and modeling tools to inform operating decisions throughout the entire system. Manitoba Hydro also has established practices for managing storage over the spectrum of water supply conditions from drought to flood. These practices have been reviewed by the Public Utilities Board, in particular during the 2010-11 Risk Review.
106	CEC Expert	Operations	Apply climate-adjusted 1915-2013 hydrology to rule-based operational model (Near-Term recommendation)	Manitoba Hydro Disagrees	Manitoba Hydro already has a suite of decision support and modeling tools to inform operating decisions throughout the entire system. For LWR, this includes rules as set out in the interim licence such as maximum discharge when Lake Winnipeg is above 715 ft, the minimum outflow requirement and the Jenpeg rate of change limit. Additional rules within the 711-715 ft power range would not be appropriate because they would not consider the many constantly changing conditions that are included in Manitoba Hydro's decision support models.
107	CEC Expert	Operations	Convert existing LWRM spreadsheets to a rule-based model for simulation of Jenpeg station releases and Nelson River flows under baseline rules; refine baseline rules by comparison of simulated to historical (1977-2013) flows and levels (Near-Term recommendation)	Manitoba Hydro Disagrees	Manitoba Hydro spreadsheet models were developed for specific purposes identified in Appendices 4 and 10. Both were peer reviewed and provided supporting information for the CEC process.
108	CEC Expert	Operations	Define at-site LWR logical operating rules for Jenpeg station with Lake Winnipeg in the 711-715 power range (baseline rules) (Near-Term recommendation)	Already Addressed / Not Required	Manitoba Hydro already has a suite of decision support and modeling tools to inform operating decisions within the 711 to 715 ft power range.
109	CEC Expert	Operations	Define, to the extent possible, Jenpeg release rules when Lake Winnipeg approaches and falls below 711; incorporate in baseline rules (Near-Term recommendation)	Already Addressed / Not Required	Manitoba Hydro already has a drought preparedness and response plan. This plan was filed in confidence with the PUB in 2014. Defining rules when levels are below 711 feet would constitute a licence change - such a change would require consultation with affected interests.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
110	CEC Expert	Operations	Formulate at-site and system operating rules, priorities and constraints for all Manitoba Hydro components (Long-Term recommendation)	Already Addressed / Not Required	Manitoba Hydro already has a suite of decision support and modeling tools to inform operating decisions throughout the entire system. Reducing the operation of the entire system, under changing load, inflow, and storage conditions to a set of rules would be extremely complex and dynamic; the value of such a changing rule set would be questionable.
111	CEC Expert	Operations	Identify and script internal and external state variables for simulation of effects of important hydrologic and physical considerations in operational decisions including shoreline erosion, wind setup, ice formation, Lake Manitoba drainage channel operation, etc. (Long-Term recommendation)	Future Consideration	This would require extensive study, public consultation and provincial leadership. Some of these aspects may be included as part of the licence renewal process but that process needs to be defined by the Province of Manitoba.
112	CEC Expert	Operations	Identify stakeholder/cooperator (FERC-ILP term) performance measures for future multipurpose operational planning studies (Long-Term recommendation)	Future Consideration	This would require extensive study, public consultation and provincial leadership. The Province of Manitoba may include this as part of the licence renewal process.
113	CEC Expert	Operations	Implement rule-based water control planning decision-support system on generalized model platform (e.g. HEC-ResSim, CADSWES RiverWare), incorporating major components of Manitoba Hydro system and other water control structures affecting Manitoba Hydro system operation (reservoir operations and energy operations planning go together) (Long-Term recommendation)	Future Consideration	Manitoba Hydro believes that it would be premature to invest the time and money required to configure, calibrate, and develop an externally available model of the Manitoba Hydro system at this time. The Province of Manitoba may include this as part of the licence renewal process. If so, extensive public consultation would be required to define the scope and information desired from the models to guide model selection.
114	CEC Expert	Operations	Investigate seasonally-adjusted Lake Winnipeg power range alternatives (Near-Term recommendation)	Future Consideration	Significant stakeholder engagement and study is required prior to making any changes the current operating conditions. While Manitoba Hydro disagrees that this should be completed in the near-term, the Province of Manitoba may decide to include this as part of a longer term licence renewal process.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
115	CEC Expert	Operations	Re-assess Manitoba Hydro conclusions, re: LWR effects on Lake Winnipeg levels and effects of climate change on LWR (Near-Term recommendation)	Manitoba Hydro Disagrees	<p>Appendix 4 of the LWR document provides a peer reviewed assessment of LWR effects on Lake Winnipeg water levels. The results are consistent with CEC expert reports by Dr. Hesslein and Dr. McCullough.</p> <p>Manitoba Hydro already considered climate change impacts to the LWR project by conducting a detailed hydroclimatic study (LWR Document, Appendix 7). Manitoba Hydro also has a Corporate Climate Change Report which details the Corporation's strategies and related actions and initiatives.</p>
116	CEC Expert	Operations	Simulate Lake levels and Jenpeg releases for the 1915-2013 period of hydrologic record under baseline LWR rules; compare with observed 1915-1977 and unregulated 1977-2013 conditions (derived in Appendix 4 to Manitoba Hydro July 2014 report) (Near-Term recommendation)	Manitoba Hydro Disagrees / Future Consideration	<p>While Manitoba Hydro disagrees that this should be completed in the near-term, this may be worthwhile to include as part of a longer term licence renewal process however that process and requirements need to be developed by the Province of Manitoba.</p> <p>Also, Manitoba Hydro already has models in place that use historical streamflow to data determine its operations and plan for future resources.</p>
117	CEC Expert	Operations	Alteration of the Lake Winnipeg regulation protocol to permit two-year, low-water periods with a frequency of roughly ten to twenty years	Manitoba Hydro Disagrees	<p>In most years it would not be possible to draw down Lake Winnipeg and low water periods already occur at roughly the suggested frequency in the period with regulation (1977, 1988, 2003).</p> <p>In low water years, attempting to further lower the lake levels puts energy reliability at risk with potentially devastating consequences such as electrical outages. This may also have unintended negative effects on Lake Winnipeg and downstream.</p> <p>The research to date indicates that there are many factors affecting the Netley-Libau Marsh. Without closing the 'Netley Cut' and resuming dredging at the mouth of the Red River, the suggested drawdown may not provide the desired outcome. Additional research is required and Manitoba Hydro continues to support research to understand potential impacts to the marsh.</p>

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
118	Public	Operations	We need a change for the water (referring to slush ice conditions also possibly water too high )	Already Addressed	Manitoba Hydro already operates in a manner that attempts to reduce the potential for slush ice and has a safe ice trails program to provide safe alternatives to travelling on unmarked routes.
119	Participant	Operations	Substantial changes should be made to the operating regime to allow for affected peoples to have a say in the day-to-day operating decisions that have such a profound impact on their lives.	Future Consideration	Significant stakeholder engagement and study is required prior to making any changes to the current operating conditions. This will be considered in Process Agreement discussions between Pimicikamak, Manitoba Hydro, and Manitoba.
120	Participant	Operations	Investigate the options for an operational review of the entire northern Manitoba hydroelectric system using an "ecohydrological" perspective.	Government	The RCEA is ongoing. This proposed review would require extensive study, public consultation and provincial leadership. The Province of Manitoba may include this as part of the licence renewal process.
121	Public	Monitoring and follow-up	That surrounding communities become part of the solution, be utilized to monitor and be compensated for their services (Lake Winnipeg)	Government	Government decision
122	Public	Other	Manitoba Hydro and the province should provide for – and train local members in – shoreline loss mitigation, buffering, reclaiming land, and cleaning and protecting waterways. (Lake Winnipeg)	Government	Government decision
123	Public	Other	Report Manitoba Hydro employment for upstream and downstream communities every five years	Already Addressed / Not Required	Manitoba Hydro already sets and reports annually on Aboriginal employment targets, based in part on Aboriginal populations in the northern and province-wide labour forces.
124	Public	Other	Independent study to be able to respond to Manitoba Hydro's professionals, engineers and studies (referring to shoreline erosion and sedimentation on Lake Winnipeg)	Already Addressed / Future Consideration	For shoreline erosion and water levels on Lake Winnipeg an independent review was already completed in 2000 by the LWSEAG. CEC experts have confirmed erosion occurred long before LWR and will continue in the future. CEC experts also confirmed Manitoba Hydro studies showing LWR did not increase the average water level on Lake Winnipeg and lowered peak flood levels. The LWIC may be a resource to conduct future studies.
125	Participant	Other	Manitoba Hydro utilize the natural law / ndinaway ini nan of the Keewatinook Fishers into the regulation of Lake Winnipeg as a way forward.	Future Consideration	The LWIC may be a resource to gather and further understand the value of ATK in understanding issues facing the health of Lake Winnipeg. Manitoba Hydro continues to engage in dialogue with communities around Lake Winnipeg.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
126	Participant	Other	The final licence for LWR should require priority Pimicikamak employment at the Nelson River hydroelectric stations, with specifics on how this would be effected, in an effort to implement the Northern Flood Agreement (NFA) commitment and align it with current notions of reconciliation. In the NFA, Manitoba and Manitoba Hydro recognize that "it is in the public interest to employ, to the maximum possible extent, residents of the subject Reserves in all works and operations related to the Project." (Art. 18.5) Currently, a relatively small number of Pimicikamak are employed at Jenpeg.	Already Addressed / Not Required	Manitoba Hydro already has measures in place to increase employment opportunities at Manitoba Hydro for Aboriginal people. Specifically for Pimicikamak/Cross Lake First Nation (CLFN), as of April, 2015 there were 63 Cross Lake Band Members at Manitoba Hydro with active employment status. Of all First Nations in Manitoba, CLFN has the largest number of members working for Manitoba Hydro. Over the summer with student and seasonal workers, the number of people employed by Manitoba from CLFN increases.
127	Public	Other	Recommend that as a condition of the license, Manitoba Hydro should agree to engage in a dispute-resolution process so that any conflicts with Treaty 2 Territorial Alliance can be remedied justly, equitable, rapidly and efficiently.	Manitoba Hydro Disagrees	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR.
128	Various	Other	Provide opportunities to upgrade insulation in Aboriginal homes to address high energy bills	Out of scope	Manitoba Hydro has a Power Smart First Nations Program and a community geothermal program.
129	Public	Peguis	Peguis First Nation and Manitoba Hydro work together to come to a resolution on the floods that are happening in Peguis.	Out of scope	Flooding in Peguis First Nation is not affected by water levels on Lake Winnipeg.
130	Participant	RCEA	A requirement for a regional cumulative effects assessment (RCEA) should be incorporated into final licence conditions for both CRD and LWR. This should be implemented before any additional hydro development is licensed. The study must establish a set of feasible objectives through a collaborative approach among Aboriginal Peoples and scientists. The study must utilize the existing relevant information available, and determine what additional research can be conducted within a reasonable time frame. Requirements for a comprehensive ongoing environmental monitoring program should be established.	Government	Manitoba Hydro and the Province of Manitoba are undertaking a Regional Cumulative Effects Assessment (RCEA). Phase I was completed and documents the approach being used to undertake Phase II. Phase II is currently in progress and is scheduled to be completed by the end of 2015.  In regards to ongoing environmental monitoring, Manitoba Hydro and the Province of Manitoba continue to undertake CAMP, which is now entering into its eighth field season.
131	Various	RCEA	Completion of a cumulative environmental assessment that includes CRD & LWR together	Already Addressed / Not Required	Manitoba Hydro and the Province of Manitoba are undertaking the RCEA. Phase I was completed and documents the approach being used to undertake Phase II. Phase II is currently in progress and is scheduled to be completed by the end of 2015.
132	Public	Studies	That the lake levels and any work done be discussed with all communities prior to developing or constructing any further channels to draw out lake levels	Not Required	No additional Lake Winnipeg outlet channels are planned.

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
133	Presenter	Studies	<p>We encourage Manitoba Hydro and other stakeholders to view upstream storage in wetlands and distributed storage systems (e.g., similar to the North Ottawa project) as reservoirs tied into hydro. The volume of Lake Winnipeg as a reservoir is small, but water could also be stored upstream rather than in the lake itself, resulting in additional benefits such as reduced overland flooding, increased nutrient capture and new economic opportunities. Such investments would also align well with the provincial Surface Water Management Strategy.</p> <p>We suggest that the first steps for investigating upstream storage would be to model the amount of water that could be stored in the basin and to conduct benefit-cost calculations that factor in ecosystem services such as the value of carbon storage, reduced flooding, drought-proofing, economic opportunities and nutrient capture (see Dion &amp; McCandless, 2014).</p>	Government	The province may or may not wish to participate in this concept for ecosystem purposes. Manitoba Hydro is unclear if this concept has benefits for hydro production purposes.
134	Participant	Studies	A further water cover area and changes along the Fisher River and the Peguis Reserve study is recommended utilizing satellite images, weather data and water coverage information	Manitoba Hydro Disagrees	Water levels in Peguis and in the majority of the study area are not affected by water levels on Lake Winnipeg. There is no hydraulic connection between Lake Winnipeg and the majority of the areas included in the water cover mapping. In a 2009 study completed for the Province of Manitoba, AECOM confirmed that Lake Winnipeg does not have a backwater effect on Peguis.
135	Participant	Studies	Additional field-work and analysis should also be carried out by hydrologists and geomorphologists to determine the reasons why the shoreline in the study area (north end of Lake Winnipeg) has changed following Lake Winnipeg Regulation and the construction of the Jenpeg generating station.	Manitoba Hydro Disagrees	For shoreline erosion and water levels on Lake Winnipeg an independent review was already completed in 2000 by the LWSEAG. CEC experts have confirmed erosion occurred long before LWR and will continue in the future. CEC experts also confirmed Manitoba Hydro studies showing LWR did not increase the average water level on Lake Winnipeg and lowered peak flood levels.
136	CEC Expert	Studies	<p>Influence of Climate Variability on Lake Winnipeg</p> <p>...Understanding the potential implications of climate variability for the management of the Lake Winnipeg shoreline is a two part process. First, defensible estimates of key physical processes must be generated for future climate change scenarios, such as river inflow volumes, lake level extremes, changes in ice cover, and modifications to the wave climate on Lake Winnipeg. ... Without robust regional wind fields for future climate change scenarios, it is not possible to comment on the frequency and intensity of future storms on inland lakes, and thus there remains considerable uncertainty into this important driving force for shoreline change projections in the future.</p> <p>Once defensible future projections for key physical conditions and processes are established, a technical investigation is required to simulate future erosion and accretion rates, and flooding hazards with process based numerical modeling tools. Finally, these anticipated future changes should be compared to historical conditions to evaluate potential state changes, vulnerable ecosystems, implications for shoreline hazards and infrastructure at risk (now or in the future).</p>	Government	<p>The Province of Manitoba may find it valuable to study these topics.</p> <p>Manitoba Hydro already considered climate change impacts to the LWR project for operation purposes. Manitoba Hydro believes that LWR has not increased shoreline erosion on Lake Winnipeg.</p>

	Group	Topic	Recommendations to Final Water Power Act (WPA) Licensing	Manitoba Hydro Response	Manitoba Hydro Comments
137	CEC Expert	Studies	Water Level Regulation Impacts on the Shoreline ...a definitive answer on whether water level regulation from 1976 to present has increased or decreased erosion rates will require a detailed technical investigation. The first component involves measuring rates of shoreline change from 1976 to present using historical beach profile data, land surveys, and aerial photographs. Numerical modeling tools ...are then required to simulate the pre-regulation (1915 to 1975) erosion rate at various locations around the lake based on the water level hydrograph in Figure 2.11. ...the modeling tools must also simulate the hypothetical erosion that would have occurred from 1976 to present based on the scenario of no regulation structure at Jenpeg (as presented in Figure 2.12). With such an investigation, two important questions could be answered: 1) How do the pre- and post-regulation erosion rates compare? and 2) How does the post-regulation erosion rate compare to the hypothetical scenario of no regulation structures from 1976 to present?	Manitoba Hydro Disagrees	A technical investigation on shoreline erosion would require substantial financial resources and would provide little additional insight into the causes of the erosion. The Province's money and effort would be better spent on helping shoreline property owners improve the resiliency of their property to shoreline erosion and ensuring that shoreline development is governed by sensible, coherent legislation that restricts where it can take place.
138	Participant	Studies	The November cutback or ice stabilization program needs to be studied with regards to specific ecological or cultural effects.	Future Consideration	Manitoba Hydro has modified its cutback program to closely manage flow changes during the freeze-up period. One of the program's objectives is to minimize adverse effects on Cross Lake.
139	Participant	Studies	The current 15,000 cubic feet per second rate of flow change in a 24-hour period must be studied in light of actual operations over the past 39 years, and better understood in terms of impacts on people and wildlife habitat. That maximum rate of change should not necessarily be permitted at all times of the year.	Future Consideration	Over the past 39 years of actual operations, the median flow change has been about 2,000 cfs. A 15,000 cfs change has only occurred 5% of the time overall and only 2% of the time in the past 15 years.
140	Participant	Studies	Technical studies be conducted to determine how much land Sagkeeng has lost since 1870, since the first dam on the lake, on the river, since 1970s and the regulation of lake levels. Studies to include extensive traditional knowledge with full involvement of Sagkeeng. So in order for these things to happen, there has to be resourcing and you're going to have to engage Sagkeeng First Nation members, because you're not going to know what's happened in Sagkeeng since this has occurred.	Government	Government decision
141	Participant	Studies	Technical and traditional knowledge studies are needed regarding the changes in ice thickness, the strength in the ice due to climate change, to monitor over time the different, the climate change, water temperature, ice, weather events that occur in the Sagkeeng territory.	Government	Manitoba Hydro maintains Lake Winnipeg is not negatively affected by LWR. These potential study topics fall within government jurisdictions.
142	Participant	Studies	Traditional studies of Sagkeeng First Nation, use of Lake Winnipeg shoreline over time, and the effects of loss of shorelines and lake banks, and the non-ability to exercise Aboriginal Treaty rights to gather, hunt, fish and trap.	Government	Consultation of Aboriginal and Treaty Rights is a government responsibility.