Comments on the Draft EA Report for the LMLSMOC Project

Norway House Cree Nation

May 2024

The Norway House Cree Nation technical advisory team has done a preliminary review of the draft EA Report submitted by the Impact Assessment Agency of Canada for the proposed Lake Manitoba and Lake St Martin Outlet Channels Project (Project). The draft EA Report outlines a wide range of concerns that have been expressed and explored by Indigenous Nations, other communities, and federal government agencies over the likely and potential impacts that would be created by this massive landscape altering construction proposal. NHCN has concluded that there is a need for more clarification on some issues for the Minister's benefit in order that he can fully understand the long-term consequences of his decision.

In this set of comments, we will share perspectives about some of the broad issues with the federal environmental assessment process followed by comments and recommendations on sections of the draft EA Report prepared by IAAC. Some of the comments are a repetitive as they refer to specific passages of text in the EA Report which address some overlapping topics.

General Comments

Need for and Alternatives to the Project

Given the passage of time since CEAA 2012 was replaced, we would like to see some more detail in the EA Report explaining the implications of this Project being assessed under CEAA 2012 and discussion of the Agency's perspective on this. As we understand it, the requirement to consider the need for and alternatives to the proposed Project was reduced in CEAA 2012 compared to previous federal EA legislation and compared to the Impact Assessment Act (IAA) of 2019. There has been considerable study of the options to deal with major floods in the Assiniboine, Lake Manitoba and Lake St. Martin regions, which led to the decision to pursue this route for mitigation. It would be helpful to have some more background on that included in the EA Report.

This is one of the areas of concern held by Indigenous Nations. This project will create significant changes on the landscape and is associated with considerable uncertainty with regards to the effects during and following future floods that may exceed past events in frequency and magnitude. Indigenous Nations would like reassurance that this huge project is the only alternative to mitigate the type of extreme flooding that occurred in 2011 and 2014, or worse.

For example, the EIS, subsequent IR responses and the draft EA Report provide a fairly limited explanation of the need for the Project and the effects of the Portage Diversion. The way the proposed Project is presented to the public has improved to some extent throughout the environmental assessment process to date in terms of transparency, however the province continues to suggest that the flooding on Lake Manitoba and Lake St Martin during those extreme events was mainly caused by natural forces. The need for the Project in those areas is significantly influenced by the Portage Diversion and the desire to provide more flood protection for the Assiniboine River and into Winnipeg. Although this is a politically thorny issue, it should be made clear in the EA Report how the basin plumbing of the existing and proposed systems work.

The province also emphasises that the capacity and operating rules of the Portage Diversion will not change with this Project. What people are in fact concerned about is that the Portage Diversion will be able to be used more often with the Project, and that this would be possible since they could use it with less risk to Lake Manitoba and Lake St Martin. We appreciate that this is the flexibility in the system that is needed to better protect several of the southern regions of the province. The water is then channeled more quickly downstream during extreme events, and all ends up in Lake Winnipeg, which with its increased outflow capacity due to LWR, flows into the Nelson River through Norway House Cree Nation and Pimicikamak reserves and traditional territory. This then adds to risk to downstream communities associated with more frequent and more intense rain events.

We understand that the risk predicted is considered to be relatively small compared to the ongoing changes that already occur to the downstream water bodies. However, it does represent a transferring of risk downstream to some degree. Since this is already part of the system design with LWR, to transfer flood risk from Lake Winnipeg further downstream to the extent possible, any addition to this risk should be appreciated in the EA Report supporting decisions around such large infrastructure.

The vast network of drainage systems across the agricultural landscape also has a significant influence on the timing and magnitude of run-off into major rivers. Even though there are existing policies intended to limit further wetland loss in the south and commit to wetland restoration, there is still loss occurring both permitted and illegal across several jurisdictions, including in the US states that drain into the Lake Winnipeg basin. Clearly this is a major challenge and extensive changes would have to take place to reduce the effect of this widespread landscape alteration on peak floods in Manitoba. Even though this is a broad scope issue, it is a cumulative effect that is contributing to the considered need for this proposed Project. It would be useful to better understand how much effort is being made in this regard and whether any progress is being made. If it is considered to be impossible to offset the need for more flood control channels, then this could be explained as an unfeasible alternative.

Cumulative Effects Assessment

We would like to emphasize that NHCN understands the complexity of this issue of flood control in Manitoba. We understand that flood control infrastructure has been a long-standing historical enterprise since the creation of Manitoba as a province and that the current situation is extremely challenging with many competing economic and political interests as well as jurisdictional conflict among levels of government.

It is also a fact that the land and waterscapes occupied by the First Nations have been and continue to be radically transformed by settlement and industrial and agricultural development. With each new water regulation project these ecological and cultural landscapes are further degraded. We appreciate that the draft EA Report does reflect this reality in many respects and acknowledges that there is significant uncertainty about cumulative effects assessment.

Cumulative effects assessment is meant to address such incremental environmental impact, at least on the level of a better appreciation of history and what has led to current conditions. The idea is that a better understanding will lead to better decision making that will reduce impacts, maintain ecological and cultural values to the extent possible, and compensate for unavoidable impacts. The EA Report acknowledges that there are effects from past and ongoing water regulation projects but accepts the position of the Proponent that this incremental degradation is simply implicit in the existing environment, supposedly requiring no further explanation or consideration that would help people to comprehend how we got to where we are. This approach limits the ability of the Minister to understand the full implications of the Project proposal in terms of cumulative impacts, and the full range of reasonable mitigation measures that could be implemented to good purpose.

When considering mitigation for the increased risk of downstream cumulative effects, the Minister could be directed to read the conclusions and recommendations of the 2015 Manitoba Clean Environment

Commission review of the Lake Winnipeg Regulation final licence in conjunction with this environmental assessment of the proposed Project. It was anticipated several years ago that much more work was required to support the licencing renewal process for the Lake Winnipeg Regulation since it has so many implications for communities and the ecological health of the region.

The Commission recommended that:

"10.4 The Government of Manitoba require an environmental assessment of Lake Winnipeg Regulation prior to relicensing.

10.5 The Government of Manitoba facilitate the establishment of a Steering Committee, with an independent chair, to undertake an environmental assessment of Lake Winnipeg Regulation effects downstream as described in Section 10.4, Planning for a Future Environmental Assessment for LWR, of this report.

10.4 Planning for a Future Environmental Assessment for LWR, of this report 10.6 Manitoba Hydro make the Coordinated Aquatic Monitoring Program permanent, with appropriate funding." (p. 143)[1]

As far as is understood by NHCN, there has been little progress made on these recommendations to date. The shoreline work under the Coordinated Aquatic Monitoring Program that was included as a licensing condition has not yet been developed and Manitoba Hydro appears to have allocated few resources to this. If there are commitments made to mitigation programs as a condition of permitting and licensing for the LMLSMOC Project, then these need to be adequately resourced and implemented. Otherwise, they are meaningless.

The experience of the downstream communities on the Nelson River with the Northern Flood Agreement does not provide a lot of confidence that commitments to mitigation programs for major water regulation projects will be fully honoured. Indigenous communities have had to litigate many times to see progress made on the promises that were made. The promises offered to help to gain support for projects are not always realistic and/or feasible, and significant resources and collaboration in good faith are usually required to meet stated objectives.

It is understood that it is very expensive and not entirely possible to assess and explain the full extent of cumulative impacts of such a large network of artificial structures. These manipulate the waters of wetlands, streams, rivers and lakes in ways that differ from the seasonal patterns to which ecosystems and Indigenous cultures are adapted. The quantity of water on the landscape varies widely under natural conditions from year to year. The structures for flood control and hydroelectric production then serve to change the distribution of water in ways that can favour some purposes to the detriment of others. The EA Report is reasonable in its conclusion that the Project will cause significant direct and cumulative environmental effects, however mostly discounts any additional risk to communities immediately downstream of Lake Winnipeg.

Climate Change Uncertainty and the Nelson River

The Report acknowledges that there is uncertainty regarding the extent of potential cumulative effects on many elements of the environment, community values and Treaty rights. NHCN considers that there is a high level of uncertainty about future downstream effects given the predictions related to climate change. One prediction that is made with a high degree of confidence through several modelling exercises is that there will be more frequent and more intense rain events in the region. It was such an event affecting the south and

[1] Manitoba Clean Environment Commission. 2015 Lake Winnipeg Regulation Report. http://www.cecmanitoba.ca/doc/commission_reports/LWR_WEB.pdf

eastern portions of the Lake Winnipeg basin that caused record high waters as recently as 2022 in the southeast region of the province and subsequently downstream in NHCN waters. There is overall a high level of uncertainty about future water supply and flow patterns in the Lake Winnipeg/ Nelson River basin and how this will affect operations of the hydroelectric generating system as a recent study concluded:

> *"Projected changes in reservoir inflow and hydropower generation potential continue to diverge over time, with dry scenarios becoming drier and wet becoming wetter, yielding high basin climate sensitivity and uncertainty with system supply and generation potential."* (Kim et al. 2022:1).

As stated to IAAC previously, for NHCN and other communities in the Lake Winnipeg/Nelson River basin, any changes to the flood control system that make it possible to channel extreme rain events to the north more quickly, that then rely on the accelerated outflow capacity of LWR to lower Lake Winnipeg water levels, require serious consideration and meaningful negotiations around the operating parameters of the LWR.

Mitigation Measures

It is for these reasons that a range of mitigation measures that have been committed to for the downstream areas due to the effects of existing water regulation require stronger and timelier implementation if this additional Project is to go ahead. In addition, just as it is accepted that wetland compensation can take place outside the region of the direct Project footprint, additional mitigation for the cumulative effects of this province-wide system of flood control that relies on the increased outflow at the outlet of Lake Winnipeg and on into the Nelson River should be considered.

Certain measures that can go a long way towards helping to compensate for the adverse cultural effects of these water control projects combined, as experienced by NHCN include:

- Increased monitoring of water quality, debris and sediment transport in the north basin and Playgreen Lake and Cross Lake.
- Commitment to begin a more collaborative and comprehensive analysis of the effects of LWR operation parameters in advance of licence renewal in 2026.
- Provision of real time and historical hydrometric data for all downstream stations to make this data more easily accessible to the public on the Water Survey of Canada and Manitoba Hydro websites. This could include the calculations for total outflow from Lake Winnipeg.
- Funding for an inventory of NHCN vulnerable structures that are threatened with high water levels – residential and band assets.
- Expedited clean-up of construction debris and contamination at 2-mile and 8-mile channels.
- More support for aquatic invasive species decontamination stations downstream of Lake Winnipeg to try to prevent the spread into adjacent watersheds including the Hayes River – a Heritage River.
- Additional study and monitoring of shoreline erosion processes along the north shore of Lake Winnipeg and the narrow channels downstream.
- Resources to begin a shoreline monitoring program as committed to by the province in the final licence for LWR.
- More resources to deal with navigation problems.
- Funding for a process to establish Indigenous Protected Areas at Limestone Bay in the north basin of Lake Winnipeg and at Molson Lake in the Hayes River system.

Discussion with NHCN to discuss feasibility and priorities is necessary.

Comments on the Draft EA Report

** Note that the page numbers cited here for the purpose of identifying the location of quotes from the text and comments on sections of the text are the sequential pages in the digital document, not the page numbers of the printed document. Quoted passages from the draft EA Report or other reports are in italics.

Page 3 Executive Summary

"The Project is subject to a provincial environmental assessment under Manitoba's The Environment Act. The Environmental Approvals Branch of Manitoba Environment and Climate Change will make a licensing decision for the Project at the end of the provincial environmental assessment process."

Comment:

We are not clear on what the provincial environmental assessment process is for this Project.

Page 36

Comment:

It would be helpful to have a map here defining the PDA, LAA and RAA boundaries along with a discussion of how these boundaries were chosen. Indigenous communities, especially those immediately downstream, were not involved in scoping the VEC's or the spatial and temporal boundaries. There are some legitimate concerns about the cumulative effects downstream beyond the RAA and the uncertainties in the assessment of downstream water levels resulting from the Project in combination with other flood control infrastructure during extreme events in the future. Flow velocities and erosion rates through the artificial channels created for LWR that have changed the outflow characteristics of Lake Winnipeg are important to consider with any increases in rates of inflow to the lake.

Page 70

Comment:

This map of the RAA for surface water includes Lake Winnipeg up to the natural outlet of Lake Winnipeg but does not include the artificial outlet known as 2-mile channel constructed for the LWR which cuts straight across the peninsula. This is a problematic area for several reasons and is one of the areas of concern for NHCN with regards to the proposed Project due to the potential for cumulative effects of an increase in the volume of surface water flow and duration of high waters during flood years. There is already severe erosion along the banks of the north basin of the lake, significant debris entering Playgreen Lake necessitating annual clean-up to protect navigational safety, and probable increase in sediment transport into Playgreen Lake over pre-LWR conditions. The 8-mile channel further downstream that serves to increase the rate of flow out of Playgreen Lake also has problems with erosion.

Page 70

"*The Proponent noted a maximum five centimetre rise of Lake Winnipeg and four centimetre rise at Cross Lake and characterized downstream effects as negligible*."

"*The Proponent concluded that changes to regional flows and water levels would be adverse or neutral in direction, long-term, negligible to low in magnitude, local and regular in frequency and irreversible as opening of the WCS gates are expected to occur approximately every three years*."

Comment:

The only downstream predictions that were done for the proposed Project were to estimate changes in water levels in Cross Lake and Split Lake which does not take into account the complexity of the system and the dynamics of flowing water effects on the environment. The increased outflow capacity of Lake Winnipeg associated with LWR allows operations to respond to high lake levels which then influence the water bodies immediately downstream of the lake.

For example, when Jenpeg is opened up fully to maximum outflow, it dewaters the flooded areas of the forebay. When these changes are done for the purpose of hydroelectric production or flood control, they not only alter the rates of flow, but can also change the **seasonal** patterns of water flow and levels which have a significant impact on the aquatic and riparian environments and the species that are adapted to the natural seasonal patterns of flow in a boreal environment.

There are concerns about the condition of riparian vegetation communities along the shorelines influenced by water regulation. New shoreline research and monitoring was added as a condition on the LWR final licence but has yet to begin. The fishery in Playgreen Lake has declined since LWR and the Norway House Fisherman's Coop now has a quota in the north basin of Lake Winnipeg associated with an agreement subsequent to the Northern Flood Agreement.

The addition of the proposed Project may contribute only a portion of increased flows to Lake Winnipeg along with all of the other land drainage and river flood control infrastructure, however, the cumulative impacts downstream cannot be simply discounted as negligible with little to no analysis, especially given the uncertainty of climate change in the future. This is acknowledged to some extent in the draft EA Report. NHCN requests that these points be made stronger in the Report.

Page 75

"*Environment and Climate Change Canada highlighted that the frequency of the Project WCS gates opening for flood mitigation is likely to be higher than reported in the EIS due to the non-stationarity of flood frequency and the potential effects of climate change (i.e., floods of a given magnitude are more frequent than they once were and may become more common in the future). The increasing trend in the frequency and magnitude of floods may be due to climate change, land use changes, and water management practices.*"

Comment:

As mentioned, an increase in the magnitude of floods in the south will also influence the operation of Jenpeg downstream of Lake Winnipeg. The Nelson River east channel is unregulated, except that it receives some of the increased rates of flow associated with the 2-mile channel. NHCN has concerns about aquatic invasive species spreading into lower lying areas during high floods. A tributary to the Nelson River, the Echimamish River (river that flows two ways) has a short portage into the Hayes River. NHCN is trying to prevent the spread of AIS into the Hayes River system and needs more funding and help with this. An increase in the magnitude and duration of high-water periods will only make effort this more difficult.

Page 84

Comment:

The monitoring sites should include Should Limestone Bay, Playgreen Lake, 2-mile and 8-mile channel, East channel of the Nelson River.

Page 156

"... the Proponent shall:

- *Rescue and relocate northern leopard frog and snapping turtle prior to commencing construction activities in work areas.*

- *install and maintain exclusion fences to prevent northern leopard frog and snapping turtle from accessing work areas. If the proponent must conduct work within overwintering habitat, exclusion fencing shall be installed prior to hibernation. If there are incidental findings of snapping turtle nests within the construction site, the Proponent will implement mitigation measures in consultation with relevant authorities."*

Comment:

Has the Proponent responded to these recommendations with any discussion about how feasible and effective it would be to implement these mitigation measures over such a large area?

Page 172

One of the conclusions the Agency has made regarding the Environmental Advisory Committee is that the Proponent should:

"...ensure opportunities to participate in this committee are offered to all Indigenous groups;"

We agree entirely with this as the downstream communities have not been invited to participate in any way.

Page 227

Comment:

There are some sections of the draft EA Report in which certain concerns are attributed to NHCN, that we do not remember raising. This is not a big problem. It must have been very challenging to sort out all of the different submissions and incorporate that into one report.

Page 229

"*The Agency acknowledges that there is some uncertainty given the nature of the parameters and concerns from Indigenous groups regarding downstream effects to Lake Winnipeg, and that mitigations to address these concerns are difficult to develop."*

Comment:

The volume of water conveyed by the channels during a flood event into Lake Winnipeg would affect the level of the lake but would also directly influence the operation of the Jenpeg spillway. This then has a direct effect on the water levels in the Jenpeg forebay which are reduced as the facility must be operated at maximum outflow until Lake Winnipeg water levels are lowered.

Mitigation for the effects of this cascading manipulation of these water bodies must extend to requiring Manitoba to instigate a comprehensive consultation and review process to improve the operating parameters of LWR to achieve a more equitable balance of environmental costs and benefits up and downstream, and increased compensation to downstream Indigenous communities that are dealing with increased infrastructure costs due to flooding, reduced resource harvesting success, and ongoing sociocultural impacts.

As mentioned, there are several mitigation measures that have been previously committed to in agreements around LWR that have not been fully implemented. There are others that have not begun, and others that NHCN would like to begin.

Even though the Agency believes that mitigation for cumulative effects downstream is beyond the scope of this project specific assessment, given the fiduciary responsibility of the federal government and the cumulative impacts on Treaty rights and areas considered to be under federal jurisdiction, it is entirely appropriate for the recommendations to more fully address downstream direct and cumulative effects.

We will provide some more detail in our review of the draft Key Mitigation Measures.

Page 231

"*The Agency is of the view that effects to the other valued components identified in this EA Report are unlikely to act in combination with the effects of other past, present, or reasonably foreseeable projects or activities, given the negligible to low magnitude and limited geographic extent of the Project's anticipated residual effects to these components*."

Comment:

There will be a direct effect on surface water levels and flow downstream which will act in combination with past and ongoing projects. It is predicted that under similar conditions to the 2011 and 2014 floods, there could be an increase of a few centimeters in water levels in Lake Winnipeg and Cross Lake. This may have a negligible effect. However, there is uncertainty about the potential magnitude of change during high water events. It has not been established what the incremental effect of this will be on the environment and use of lands and waters by Indigenous Treaty rights holders. This includes uncertain effects on water velocity in narrows, shoreline erosion, riparian vegetation, water quality, spread of AIS, navigational hazards, community infrastructure, residential homes, all of which are already affected by water regulation.

Is the Agency so sure about there being no adverse effect on downstream surface water and everything that surface water influences?

Page 232

The chart states that:

"*Commercial and subsistence fishing takes place in the RAA in Lake Manitoba, Lake St. Martin, Dauphin River, Mantagao River, Sturgeon Bay, and some tributaries to Lake Manitoba, Lake St. Martin, and Sturgeon Bay."*

Comment:

Commercial fishing also takes place in other areas of the north basin of Lake Winnipeg that is within the RAA. NHCN maintains that commercial fishers from Norway House have had to expand fishing into Lake Winnipeg due to the decline in the Playgreen Lake fishery following LWR.

Page 233

Comment:

This list of flood control structures within the RAA should include the LWR artificial outlet channels and Jenpeg since these regulate the level of Lake Winnipeg starting at the 2-mile channel.

Page 236

Comment:

The RAA does not include the LWR infrastructure that is located at the outlet and in the areas downstream of the outlet of Lake Winnipeg. As explained, the LWR infrastructure and operations significantly affect the levels of the lake and downstream reaches of the Nelson River. The more flexible use of the Portage Diversion coupled with the proposed channels will add to the existing increases in peak flood levels and duration of high water downstream. This must be clearly reflected in the EA Report to the Minister.

Hypothetically, if one was to do an environmental assessment of the Portage Diversion, a similar approach would be to leave out the Fairford Control Structure from a Regional Assessment Area. How would that make sense?

Page 237

The map figure caption rightly points out that, "*The Lake Winnipeg Regulation, located in the northeast of Lake Winnipeg, is not labeled in the figure*."

Comment:

The RAA simply needs to be expanded and all of the LWR infrastructure labeled on the figure.

Page 238

The draft EA Report states:

"*The Proponent stated that the proposed maintenance and repairs to the Portage Diversion channel will not expand the capacity of the structure, and therefore will not increase the volume of water into Lake Manitoba. As such, there are no anticipated cumulative incremental effects*."

Comment:

This type of explanation helps to confuse the nature of the concerns regarding downstream cumulative effects of surface water changes. There may not be any direct cumulative effects from the maintenance work on the Portage Diversion. However, somewhere in this EA Report it needs to be explained clearly that the use of the Portage Diversion in future could increase with this proposed project. That is part of the point of the Project. To permit the use of the Portage Diversion without exacerbating flooding on Lake Manitoba and Lake St. Martin.

Even if the Portage Diversion capacity is not expanded, the frequency and duration of use of the diversion could increase with the proposed project. This is because some aspects of the operating rules that govern the use of the Portage Diversion are based on the measured water levels in Lake Manitoba. Since the proposed project will enable the lake levels to be lowered more easily, the Portage Diversion could be employed more frequently and for longer periods without exceeding the limits under the operating rules.

Therefore, the maximum flow through the Portage diversion at any one time into Lake Manitoba may not increase, however, if the frequency and duration of Portage Diversion operation increased then the volume of water that is passed through Lake Manitoba during a flood year could increase. This could then have an incremental cumulative effect on downstream water levels in Lake Winnipeg and the Nelson River, on flow velocities in narrows, especially the artificial 2-mile and 8-mile channels of LWR, erosion rates along these channels and other shorelines in the north basin of Lake Winnipeg and Playgreen Lake.

Page 239

"All residual cumulative effects to the current use of lands and resources for traditional purposes, physical and cultural heritage, and sites of significance would be long-term in duration, continuous in frequency, irreversible, and ***would occur within the RAA.****"* [emphasis added]

As discussed previously in our comments, if increased flows through the LWR channels results in increased erosion rates, then there will be residual cumulative effects outside of the defined RAA. There is uncertainty about this potential impact, and this is why some provisions must be made in the recommended mitigation measures to address the ongoing operation and relicensing of LWR.

Page 240-241

Comment:

Here the Agency has summarized the regional water control system as part of the "*Views Expressed by Indigenous Groups*." Is this not mainly factual information, and should it not be included in the basic description of the proposed Project?

Page 242

Comment:

The text makes it sound like Pimicikamak does not understand the nature of the upgrades and maintenance work on the Portage Diversion. This is not what Pimicikamak commented. The concern for Pimicikamak and NHCN is that the Portage Diversion will be used more frequently in the future despite what the Proponent claims. They say that the operating rules will not change. That is understood. However, under the existing operating rules, if the proposed project allows Lake Manitoba and Lake St Martin water levels to drop more quickly and avoid exceeding the maximum objective levels, then the Portage Diversion can be used more readily. This is the increased flexibility that Manitoba talks about in the system as a whole. Please change this text to explain that this is the case, and also that it is not just the "*view*" of Pimicikamak or others.

Page 245

"*The Agency is of the view that the Proponent did not adequately determine temporal boundaries for the cumulative effects assessment or adequately examine physical activities that have been and will be carried out.*"

Comment:

The Proponent also did not adequately determine spatial boundaries. There is some acknowledgement of this in the draft EA Report, but we strongly feel that there needs to be more clarity and explanation.

Even though IAAC accepted that the downstream communities needed to be consulted and that there was a limited analysis to predict differences in downstream water levels with the proposed project under past flood

conditions, the regional assessment areas still stopped at the natural outlet of Lake Winnipeg. The RAA did not include the artificial outlet of the lake and additional downstream channels that all combine to increase the outflow capacity of Lake Winnipeg. This increased outflow capacity through artificial channel has caused erosion and sedimentation problems and increased flooding downstream. The operations of LWR have created fluctuating conditions that differ significantly from natural seasonal patterns that have in turn had many effects on the aquatic and riparian environments. The flow of water from Lake Winnipeg through the deeper artificial 2-mile channel, has increased the quantity of debris and sediment that flows into Playgreen Lake compared to pre-LWR conditions when the outflow through Warren's Landing was shallow and vegetated which would have captured more floating debris and settled out more sediment from Lake Winnipeg. It may also have been capable of slowing or preventing the spread of aquatic invasive species.

"*The Agency acknowledges that past projects and activities should be properly considered in the cumulative effects assessment to ensure that the potential for significant cumulative effects is understood*."

Comment:

The effects of LWR are highly significant and ongoing, not just past effects.

Page 246

"*...will not be appropriately mitigated and cumulative effects would threaten the ability of Indigenous groups to practice traditional and cultural use activities within the RAA*."

Comment:

Again, here these effects are still considered to be limited to the RAA. This section must include a reference to the fact that the effects downstream of the RAA are uncertain and will add to the existing significant adverse effects of LWR and all other water regulation and land use practices in the watershed that influence run-off patterns and water quality.

Comment:

Is the Agency of the view that the additional mitigation measures yet to be developed as part of the *Fisheries Act* authorization are necessary to adequately minimize the Project's contribution to cumulative effects on fish and fish habitat? What additional mitigation measures are anticipated? Without additional effective mitigation measures, does the Agency think that the cumulative effects on fish and fish habitat would be greater?

Page 252

"... the Agency considered cumulative effects within the scope of the EA, at the scale of RAA to inform the assessment of the potential impacts of the Project on the s. 35 rights of Indigenous peoples."

Comment:

Again, the RAA did not include any areas downstream of Lake Winnipeg where the flood waters are directed, even though it is predicted that peak water levels and duration of high waters would increase downstream. The EA could conclude that these direct effects on the physical and cultural environment are insignificant, however with very little analysis this amounts to speculation at best and conclusions with no evidence at worst.

Page 254

Comment:

Norway House Cree Nation territory extends into Lake Winnipeg as well especially for fishing.

"*It is anticipated that water would flow into Lake Winnipeg at a faster rate as a result of the Project, and while the Proponent estimated that the rise in water levels would be minimal with wind and wave action when there is a flood, these Indigenous groups remain concerned about the increase in water levels*."

Comment:

There are also significant increases predicted in the duration of high-water levels downstream of Lake Winnipeg during flood years.

Page 278

Comment:

In the draft EA Report, the list of Indigenous Nations surrounding Lake Winnipeg does not include Norway House Cree Nation which also exercises its Aboriginal rights in and around Lake Winnipeg. The north basin, north shore and Limestone Bay are important parts of NHCN territory.

"*The Agency is of the view that the Project would create a more direct connection for water flow between Lake Manitoba, Lake St. Martin, and Lake Winnipeg, which would direct water into Lake Winnipeg at a faster rate and would increase overall water levels marginally.*"

Comment:

One of the reasons why the water levels in Lake Winnipeg would increase marginally, is because LWR has increased the outflow capacity of the lake up to 50%. So, the flows from the proposed project can be channeled downstream more quickly.

When the lake levels are high, the discharge at Jenpeg must be maximised for as long as it takes to get Lake Winnipeg levels down to 715 ft. When Jenpeg is at maximum outflow, the flooded forebay area is dewatered. Other areas downstream like Cross Lake then experience high water in fall followed by drops in water levels when Jenpeg reduces maximum outflow. This can be one cause of lake whitefish decline as eggs deposited in shallow water during fall spawning are then dessicated.

Depending on the season, the downstream effects of higher Lake Winnipeg water levels are not just a simple slight increase in downstream water levels that have no effect on the aquatic ecosystem.

Page 280

"*The Agency is of the view that Project effects would not extend downstream of Lake Winnipeg*."

Here the text is talking about flooding. Although it is understood that the purpose of the proposed Project is to use the channels during floods only, the cumulative impacts of the system of water regulation as a whole are not just related to flooding. It also causes lower than natural water levels in some areas, and extreme changes in seasonal water flow patterns that have degraded riparian ecosystems in many ways. For example, Lake Whitefish have all but disappeared in Cross Lake since LWR, and it is not well understood why. It has adversely affected travel on open water and on ice. The fluctuations in low and high-water periods with timing

that does not always follow typical seasonal patterns presents many challenges for ecosystems and for Indigenous land use.

The Agency cannot simply state here that the Project effects will not extend downstream, when it is predicted that peak water levels could be higher, and the duration of high-water periods could increase. Given the existing problems with erosion in the outlet channels associated with LWR, increases in velocity of flow could exacerbate that effect. It has not been established that there will be no effects from the proposed Project that extend downstream.

Page 285

Comment:

It is known that the proposed project will have effects on the Nelson River downstream of Lake Winnipeg during extreme high-water years and could be worse than predicted. Even if there is a relatively small residual effect, it cannot be completely discounted. Why are the residual effects on Surface Water not considered at all in this EA Report?

Page 309

"*The outcome of such coordination is to reduce peak water elevations*..."

Comment:

The Project if constructed can no doubt help to reduce peak water levels specifically in the Assiniboine River, Lake Manitoba and Lake St Martin. As has been explained in other parts of the draft EA Report, the outcome for the areas downstream of Lake Winnipeg is to increase peak water levels and duration of high-water periods. With climate change this effect could be somewhat higher than predicted. NHCN members have already had docks wash away in record high-water periods in recent years, 2022 being the most recent. The Report should try to maintain a wholistic approach to describing the system. Again, this is one of the things that concerns the downstream communities, in that a flood control measure that may be helpful in some ways, and in some areas, is detrimental to other areas.

Page 314

Comment:

Again, it must also be acknowledged in this EA Report that this project will have an incremental effect on peak levels and duration of high waters downstream of Lake Winnipeg, even if considered to be minor. To state that there will be no Project effects that extend downstream of the lake is inaccurate, unless the Agency has evidence to the contrary.

Climate change scenarios based on data and modelling up to 2015 did not capture the record precipitation events of 2022. Even though the 2022 event did not occur primarily in the western regions of the watershed and would not have influenced the use of the proposed outlet channels that year, this does not preclude the potential for another unanticipated record event in the more westerly regions, or even the whole southern portion of the province in future. The point is that the consequences of such an event would be experienced downstream more severely with the addition of these channels in future.

Page 314

"*The Agency acknowledges that climate change may result in floods of a higher frequency and magnitude. The Agency recognizes that the channels may operate more frequently than was predicted in the original EIS. The Agency is satisfied with the Proponent's response and is of the view that the Project is designed to manage the design flood volume and has additional capacity to divert and store water.*"

Comment:

It is understood that the Project is designed to accommodate higher flood volumes and it appears that this is the case. That is not the concern for downstream communities. The concern is that with the potential for future record floods possible with climate change, that the increase in downstream peak water levels and duration of high waters through the summer and into fall would be of a greater magnitude than is predicted. Therefore, consideration must be given when relicensing the LWR to the impacts that occur under current operating conditions and preparation for the future. Key mitigation measures should include a number of provisions for a more comprehensive process for relicensing LWR as well as off-setting programs to help with the ongoing problems related to high-waters.

Thank you to IAAC staff for the considerable work and attention put into this draft EA Report.