



**ONTARIO
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ALLIANCE**

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5 August 2014

The Honourable Minister Glen Murray
Minister of the Environment
77 Wellesley Street West
11th Floor, Ferguson Block
Toronto, ON
M7A 2T5
Email: Minister.moe@ontario.ca

Dear Minister Murray:

**Re: Wanatango Falls Waterpower Project – Frederick House River
Parr II Order Request**

Ontario Rivers Alliance (ORA) is a Not-for-Profit grassroots organization acting as a voice for the French River Delta Association, CPAWS-Ottawa Valley, Kiishik Community Association, Food & Water First, Whitewater Ontario, Vermilion River Stewardship, Friends of Grassy River, Mississippi Riverwatchers, French River Stewardship, as well as many other stewardships, associations, and private and First Nations citizens who have come together to protect, conserve and restore healthy river ecosystems all across Ontario.

Xeneca Power Development Inc. (“Xeneca”) is proposing to build a modified run-of-river hydroelectric generating station (Wanatango Falls GS) with a total installed capacity of 3.7 MW. The project’s proposed location is on the Frederick House River in Mann Township, 26 km northwest of Iroquois Falls and 22 km south of Cochrane.

In November of 2011 ORA reviewed the Wanatango Falls Final Environmental Report (ER), and expressed concern to the Minister of Environment over its many deficiencies and uncertainties in our Part II Order request. It is surprising that after 2 ½ years of additional studies, preparation, and negotiating time, that this "Final" ER has not advanced in either its sophistication, readiness, or its economic and environmental viability or certainty. Xeneca is still not ready to bring this proposal through to Notice of Completion. Many crucial decisions have not yet been made so that the public and First Nations are left with many questions unanswered.

Additionally, the proponent is still working diligently to transform the Ministry of Natural Resources (MNR) and Ministry of Environment's (MOE) policy and process to their own will and liking in order to maximize power generation, and to not have to spend the required dollars to thoroughly study and mitigate the impacts within the entire Zone of Influence (ZOI). Perhaps if the proponent invested the same resources into following the recommendations of the regulators they would have ended up with a much stronger and more environmental responsible and sustainable proposal.



Summary of Recommendations

Recommendation 1:

After having carefully reviewed the information as presented in the Wanatango Falls Waterpower Project ER; and in consideration of its potential for serious negative impacts to the environment; the lack of due diligence in completing the appropriate studies throughout the entire zone of influence; and in Xeneca's failure to obtain all the necessary agreements to ensure that this project is viable and sustainable; and further that this waterpower proposal is neither predictable, repeatable or mitigable in its present form, it therefore does not meet the requirements of the Environmental Assessment Act or the Class EA for Waterpower. ORA therefore requests that the Minister issue a Part II Order to elevate this proposal to an Individual Environmental Assessment.

Recommendation 2:

Xeneca be required to finalize any land-use and water-sharing agreements and decide on an Option before moving forward to Notice of Completion.

Recommendation 3:

Xeneca be required to clearly identify the environmental, residual and cumulative effects for each Option, along with their significance.

Recommendation 4:

Xeneca be required to refer to this project as a peaking facility, as suggested by MNR.

Recommendation 5:

Xeneca be required to commit to a maximum length of time that water will be held back from downstream flow under Plan A; and alternatively under Plan B.

Recommendation 6:

Xeneca be required to commit to maximum water level fluctuations at the base of the dam, as well as throughout the entire downstream Zone of Influence (ZOI).

Recommendation 7:

Xeneca be required to fully identify and study all wetlands within the ZOI.

Recommendation 8:

Xeneca be required to clearly demonstrate how this project will be environmentally, socially, and economically viable.

Recommendation 9:

Xeneca be required to reveal the maximum number of peaking events that could occur each day, and to commit to this in the ER.

Recommendation 10:

An independent third party socio-economic impact assessment and cost benefit analysis must be undertaken to determine the feasibility of this Project over the next 40 years, and how it will impact on the local economy, recreation and tourism, fisheries, water quality, as well as the potential loss of a valued resource, and fish as a food source.

Recommendation 11:

Xeneca be required to adhere to the MNR and MOE's definition of ZOI.



Recommendation 12:

Xeneca be required to demonstrate how this proposal can provide an economically viable and environmentally sustainable hydroelectric facility when there are multiples of weeks where no flow is released from the FHLD.

Recommendation 13:

Xeneca be required to provide credible and substantial justification for its conclusions of potential adverse environmental effects as "Not Significant" and/or low residual effects.

Recommendation 14:

That the geomorphic study includes the entire upstream and downstream zone of influence, all the way out to where the effects of the proposed project are indiscernible from the existing condition.

Recommendation 15:

Xeneca be required to adhere to MNR's recommendations for fish passage, including a 6 cms by-pass flow.

Recommendation 16:

Xeneca be required to complete a comprehensive methylmercury study that will examine all of the identified factors existing within the proposed headpond area, including soil and sediment, to provide a quantitative analysis and a projected post-construction estimate of increased mercury levels in fish tissue.

Recommendation 17:

Xeneca be required to include methylmercury impacts in a socio-economic impact study to better understand the net costs, both short-term and long-term, to potentially affected stakeholders who rely on fishing as an economic driver, and for First Nations who rely on fish as a main staple in their diets.

Recommendation 18:

Xeneca be required to complete a full cumulative effects assessment report which includes consideration of all past, present and future developments and conditions on the riverine ecosystem.

Recommendation 19:

Xeneca be required to provide a monitoring, compensation, mitigation and adaptive management plan to ensure that all valued ecosystem components, including the Walleye and Lake Sturgeon populations, are protected.

Recommendation: 20

Decommissioning provisions be required up-front in the event that the facility is no longer socially, environmentally or economically sustainable and needs to be removed.

Recommendation 21:

Xeneca be required to provide Aboriginal Information Centres and meaningful consultation with all members of relevant First Nation communities before a Statement of Completion is issued.



ORA Comments:

ORA is very pleased to have the opportunity to comment on this ER. All underlined text is used by ORA to draw attention to a point.

1. Uncertainty

Xeneca is offering Option 1 - High Dam or Option 2 - Low Dam

Option 1 – High Dam - Preferred: A 9 m gross head, extending 8.6 km upstream with a total inundation area of 72.5 ha; however, this Plan hinges on negotiating with a private landowner; however, if this fails, then

Option 2 – Low Dam: A 7.5 m head, with a headpond extending 0.5 km or 750 to 780m upstream¹.

It is obvious that Xeneca is still not ready to proceed with Notice of Completion when many aspects of this proposal rest on making an agreement with an upstream riparian landowner whose property overlaps with the proposed headpond. This was also the case back in 2011 when Xeneca first brought this proposal through to Notice of Completion. Xeneca has had an additional 2 ½ years to negotiate any agreements, but has still failed.

Xeneca has also not made a convincing economic case for Plan B – covered in Section 12 of this letter. The social and economic viability of this project is so tight that there is no room for adequate environmental flows or for reliable fish passage. Yet Xeneca is continuing to move forward with both options.

Xeneca also hopes to negotiate with Ontario Power Generation (OPG) to release more water from the Frederick House Lake Dam (FHL D). However OPG's position was made clear, "*At the June 26, 2012 PIC, the OPG representative in attendance expressed interest in the project's proposed operating regime, noting that proposed minimum flows for the new facility did not match the Frederick House Lake Dam operating plan. The representative stated that OPG does not intend to provide minimum flows to support the Wanatango Falls GS. It was also indicated that OPG was seeking assurances that the headpond associated with the facility would not affect the control dam or its associated dam safety rating.*"²

Recommendation 2:

Xeneca be required to finalize any land-use and water-sharing agreements and decide on an Option before moving forward to Notice of Completion.

ORA is also concerned that throughout this ER, but especially when addressing Residual Environmental Effects and Significance, it is unclear whether considerations were being made on the basis of Plan A and/or Plan B. "Based on the dynamic modelling (HEC-RAS) of the river channel completed to date, the Wanatango Falls facility may result in inundation and back-water effects up to 0.5 or 9.4 km upstream of the dam, depending on which project option is chosen."³

¹ Annex 1-B, – Inundation Limits P-13

² Wanatango Falls ER - Industry P-154

³ Wanatango Falls ER - Site Operation Strategy P-63



More detail is required in the ER as to which Plan is being considered when addressing environmental, residual, and cumulative effects and their significance.

Recommendation 3:

Xeneca be required to clearly identify the environmental, residual and cumulative effects for each Option, along with their significance.

2. Operating Strategy

a. Modified Run-of-River

MNR and MOE suggested that the project "*should be referred to as having a "peaking/modified run-of-river" operational regime to account for the fact that it will only be operated in run-of-river mode on average approximately 20% of the time.*" Richard Pyrcce confirmed this in his 10 April 2014 email that "*this site will be a peaking facility, not a "modified run-of-river". Table 3 indicates the site will be run-of-river 21% of the time, thus 79% of the time flows will be stored and released and regulated.*"⁴

ORA submits that terminology is vitally important, as many First Nations have indicated throughout negotiations with Xeneca that a run-of-river operation is preferred.

Also, the HEC-RAS Unsteady Flow Modeling for the project refers to "varying flows representing standard peaking operations during August, November, February and June at the Project as originally provided by ORTECH".⁵

Transparency, clarity and integrity are immediately undermined when the proposal is referred to in the ER as a "modified run-of-river" when it is in fact a peaking operation.

Recommendation 4:

Xeneca be required to refer to this project as a peaking facility, as suggested by MNR.

b. Headpond

ORA is concerned that during the low flow months of summer that water could be held back for long periods when the river ecosystem is most vulnerable; however, the ER did not specify maximum retention time of water in the head pond. The ER states that "*when natural flows are below the maximum capacity of the turbines (50 m³/s), but above the required minimum environmental flow (2 m³/s), water will be stored during off-peak hours for use during peak hours, affecting water levels upstream and flows downstream.*"⁶ Also, "*the lower the natural river flow, the longer the period of stoppage will be.*"⁷ There is no direct commitment anywhere in the ER by Xeneca that water in the headpond will be fully released within 24 hours.

⁴ Wanatango Appendix C – Email from Richard Pyrcce, dated 10 April 2014 – P-255

⁵ Wanatango Annex 1 Part 2 of 4, Canadian Projects Limited to Xeneca, P-3.

⁶ Wanatango Falls Final ER, Operating Strategy P-10

⁷ Wanatango Falls Final ER, Modified Run-of-River Operations P-115



Xeneca also reports that *"In order to minimize negative environmental impacts, limits were set to the depth and area of the inundation zone, which in turn limits storage to a few hours operation time during moderate and low flows."*⁸

Recommendation 5:

Xeneca be required to commit to a maximum length of time that water will be held back from downstream flow under Plan A; and alternatively under Plan B.

The reviewer is never quite sure whether Option 1 or 2 is being considered when reporting the *"limited ability to store water in the headpond"* or *"the magnitude and spatial extent of the associated environmental impact"*.⁹

The ER also reports a maximum daily fluctuation in the headpond of 1 m, and that downstream levels will not exceed + or – 10 cm as measured at Neeland's Rapids (approximately 24 km downstream).¹⁰

Recommendation 6:

Xeneca be required to commit to maximum water level fluctuations at the base of the dam, as well as throughout the entire downstream Zone of Influence (ZOI).

The ER reports *"Within the inundation area, tributaries showed very little connection to the river, appeared to be dry or were not anticipated to experience the effects of inundation, or were not assessed."*¹¹

Recommendation 7:

Xeneca be required to fully identify and study all wetlands within the ZOI.

c. Flows

The viability of this proposal is questionable when the ER states that *"The FHL D is shut down and not releasing flow on average 100 days per year; during such periods of zero flow, leakage from the stop logs and tributary input result in flows being approximately 2 m³/s at the site of the proposed Wanatango Falls GS. The Wanatango Falls GS will operate in such a way that the magnitude of fluctuations in flows and levels will generally remain within the range occurring under existing conditions as a result of regulation by the FHL D."*¹²

This was also put into question when *"Hydrologic flow statistics as provided by OPG for FHL D for the period 1994 to 2011 are summarized in a technical letter dated April 16, 2013 (Letter from Xeneca to Cochrane District MNR, April 16, 2013, in Appendix C). The data shows that flows of near 0.0 m³/s are released from FHL D on average 27% of the time under existing conditions (i.e. approx. 100 days in a typical year). Figure 22 below illustrates the periods of zero flow for the years 2007 to 2012. The zero flow conditions occur primarily from the end of March to the end of September but vary significantly in duration from year to year. Due to the prolonged periods of low flow under existing conditions, the statistical Q80 annual base flow reference*

⁸ Wanatango Falls Final ER, Operation Strategy P-11

⁹ Wanatango Falls Final ER, Modes of Operation P-116

¹⁰ Wanatango Falls Final ER, Operation Strategy P-10

¹¹ Wanatango Falls Final ER, P-69

¹² Wanatango Falls Final ER, Operating Strategy, Cumulative Effects, P-15



*value at the outlet of FHLD is m³/s. The Q95 annual base flow reference value is also 0.0 m³/s."*¹³

If the minimum environmental flow is 2 cms and available flow is only 2 cms for 100 days of the year, then this would leave no water to either store or to generate power for approximately 6 months of each year.

Recommendation 8:

Xeneca be required to clearly demonstrate how this project will be environmentally, socially, and economically viable.

The ER also points out that "the frequency with which each type of operating mode is employed will vary seasonally."¹⁴ Also, "there may be an increase in the frequency of peaking events, e.g. during periods when day-to-day flow releases from the FHLD are relatively stable and there is sufficient inflow into the Wanatango Falls GS' headpond to permit modified run-of-river operations."¹⁵ Also, "Although the magnitude of water level fluctuations downstream of the Wanatango Falls GS will generally remain within existing conditions, the increased frequency of peaking raises the possibility that more frequent stranding events may occur if appropriate mitigation measures are not pursued."¹⁶

In light of the fact that OPG appears to have no intention of providing more water to the operation of the Wanatango Falls GS, Xeneca's strategy seems to be to move forward with this proposal to either try to force OPG to provide more water, or if that doesn't work, to generate a tiny amount of power to the Province at the expense of the Frederick House River and its entire ecosystem. Moving forward on this highly questionable project is irresponsible in its apparent sacrifice of the tourism industry in this area when, in Xeneca's own admission, "Tourism is one of the top economic driving forces of the Northeast region and communities that are within and adjacent to Abitibi River Forest."¹⁷

Recommendation 9:

Xeneca be required to reveal the maximum number of peaking events that could occur each day, and to commit to this number in the ER.

Recommendation 10:

An independent third party socio-economic impact assessment and cost benefit analysis must be undertaken to determine the feasibility of this Project over the next 40 years, and how it will impact on the local economy, recreation and tourism, fisheries, water quality, as well as the potential loss of a valued resource, and fish as a food source.

3. Zone of Influence (ZOI)

The Agency Consultation documents show a great deal of disagreement and confusion surrounding the entire question of Downstream Zone of Influence (DZOI). It appears

¹³ Wanatango Falls Final ER, 7.1.2 ZOI & Existing Conditions, P-202

¹⁴ Wanatango Falls Final ER, refers to Table 12: Wanatango Falls Proposed GS Operating Parameters, P-123

¹⁵ Wanatango Falls Final ER, Variable Outflows from the FHLD and the Wanatango Falls GS, P-304

¹⁶ Wanatango Falls Final ER, Fish Stranding, P-304

¹⁷ Wanatango Falls Final ER – 2.11.3 Recreation Use and Commercial Tourism, P-80



that Xeneca has attempted to make its own rules regarding the DZOI rationalization proposed in their April 2013 document.

*A response from MNR to Xeneca regarding the "Zone of Influence Definition" states, "The Class EA defines the ZOI as the "immediate area beyond the site directly affected by the project". Consistent with the MOE, it is our view that the total ZOI is comprised of any area which is subject to potential impacts if the project is developed and operated as planned. The total ZOI includes the upstream and downstream boundaries of hydrologic influence, as well as areas outside of the hydrologic boundary that could be impacted by factors such as thermal, water quality and sediment regimes, and biological considerations such as barriers to fish migration. The total ZOI also includes all areas on land that would be impacted due to such things as the project component footprints, new roads, laydown and stockpiling areas, and construction camps."*¹⁸

*It appears that the final word was that, "If MNR and a proponent cannot come to a consensus on a final ZOI during the EA process, MNR would expect a proponent to clearly describe in the final Environmental Report (ER) the methodology used to delineate the ZOI boundary and, in situations where the ZOI does not cover the entire extent of hydrologic alteration resulting from the proposed development, rationalize why a stretch of river was not assessed or consulted on and how it came to its determination that the change to the hydrological regime does not cause an impact to any of the features or values of interest within MNR's mandate. Inclusion of this rationale within the ER will help MNR make a determination as to whether or not sufficient information has been collected to allow MNR to make informed permitting decisions."*¹⁹

Laurie Brownlee expressed concerns that "In response to environmental reports, she said she is still having difficulty making decisions based on missing information."²⁰ Uwe Roeper "advised that everything requested on DZOI modeling and analysis has been done, but Laurie Brownlee said the studies still don't provide enough data on existing conditions."²¹ "UR expressed concern that every time Xeneca addresses questions on DZOI, there are new questions and referral to margins of error brought forward by agencies. He explained that no model can be 100 percent accurate and it is time to use the information provided by Xeneca to make decisions".²² ORA can relate to the challenges in reviewing Xeneca's Environmental Reports and in the lack of clear and traceable conclusions.

The ER states that with a maximum turbine limit of 20 m³/s during intermittent operations (Q_{TL}), a water level fluctuation of approximately 24 cm would be observed at a point 23.78 km downstream of the Wanatango Falls GS, and it goes on to compare this based on 15-minute interval level logger data (October 2010 to August 2011), the average 7-day fluctuation under existing conditions at the same location is 23 cm, and average daily fluctuations under existing conditions are 5 cm.²³ The ER then goes on to justify this on a daily basis, "As water levels upstream of Neeland's Rapids currently experience fluctuations of 23 cm on a regular basis, Xeneca therefore put forward

¹⁸ Wanatango – Appendix C – Proposed Approach to Assessing the Downstream Zone of Influence: MNR Response to Xeneca, dated June 29, 2012 – 2.1 Zone of Influence Definition, P-280

¹⁹ Wanatango – Appendix C – MNR Communication on Zone of Influence for Projects Planner under the OWA Class EA for Waterpower Projects – P-293

²⁰ Wanatango – Appendix C – Meeting Minutes, September 12, 2013 – Wanatango Agency Meeting Minutes – P-533

²¹ Wanatango – Appendix C – Meeting Minutes, September 12, 2013 – Wanatango Agency Meeting Minutes – P-534

²² Wanatango – Appendix C – Meeting Minutes, September 12, 2013 – Wanatango Agency Meeting Minutes – P-534

²³ Wanatango Falls Final ER, Variable Flow Reach Downstream of the Bypass Reach P-120



Neeland's Rapids as the end of the Variable Flow Reach (and the downstream zone of influence, as will be discussed in Section 7.1) in a rationale document presented to the MNR on April 16, 2013 (see the letter to Jennifer Telford, MNR, in Appendix C).²⁴ In reviewing the correspondence between MNR and Xeneca regarding ZOI, it is apparent that there is a strong disagreement of the reach of impacts that could result from this operation.

The MNR must have final say on DZOI, as their "*mission is to manage Ontario's natural resources in an ecologically sustainable way to ensure that they are available for the enjoyment and use of future generations. The Ministry is committed to the conservation of biodiversity and the use of natural resources in a sustainable manner.*" On the other hand, Xeneca's mandate is to maximize power generation to make profits for their investors.

Recommendation 11:

Xeneca be required to adhere to the MNR and MOE's definition of ZOI.

4. Water Levels and Flows

The Mean annual flow of the Frederick House River at the project site is based on 1939 to 1994 daily flow data. This 20 year old data must not be used to predict flows and levels in 2014, let alone into the next 40 years, especially considering the potential effects of climate change. The ER states that based on level logger data collected from October 2010 to August 2011, the average daily water level fluctuation was recorded as 5 cm, with the maximum being 89 cm, and extended periods of time (multiple weeks) where no flow is released from the Frederick House Lake Dam. It goes on to say that zero flow releases vary from year to year, but were found to occur primarily between the end of March to the end of September²⁵ (that's six months). Chart 1, Figure 22, also indicates that in 2010 there was zero flow release from FHLD for a period of 8 ½ months.

Recommendation 12:

Xeneca be required to demonstrate how this proposal can provide an economically viable and environmentally sustainable hydroelectric facility when there are multiples of weeks where no flow is released from the FHLD.

5. Negative Residual Impacts

Table 35, Residual Environmental Effects and Significance²⁶ is misleading when it reports "yes" to residual effects for all 85 issues; and yet in every instance, it is reported that their potential significant adverse effects are "Not Significant".

Individually Xeneca justifies each issue as being not significant, although there is no clear and traceable path to indicate how these conclusions were arrived at, and there must also be consideration given to the cumulative effect of all of the issues on the project area and environment.

²⁴ Wanatango Falls Final ER, Variable Flow Reach Downstream of the Bypass Reach P-121

²⁵ Wanatango Falls Final ER, 2.8.1 Water Levels, Flow and Movement P-17

²⁶ Wanatango Falls Final ER, Residual Environmental Effects and Significance P-293 to 302



Xeneca concludes that the implementation of offsets will minimize the negative residual impacts with the loss of potential fish spawning habitat in the proposed headpond and footprint of the tailrace of the Wanatango Falls GS, and that there will be no additional significant negative residual environmental effects after the mitigation and offsetting measures.²⁷ The ER also states that daily flow alteration resulting from operations attenuates gradually with distance to a point where the residual flow alteration is no longer significant from an ecological perspective downstream (Frederick House River Site #12 – Wanatango Falls Additional Peaking Scenarios by CPL (2014) in Annex 1).²⁸ But the CPL Report indicates that "*the accuracy of the model results are dependent upon the accuracy of the FRI DSM however the accuracy of the FRI DSM is not available.*"²⁹ Therefore, ORA questions whether this report should be relied upon when considering the ZOI, let alone its negative residual impacts.

The ER also reports, "*if appreciable sediment accumulates in the impoundment of the project area, turbidity and TSS could increase during peak flows as sediment flushes. The concentrations of metals and nutrients adsorbed to sediment would also increase, possibly resulting in reduced water quality. Impacts will be mitigated whenever possible to reduce the potential for the increase in suspended sediment. Therefore, it was determined that these events have a low residual effect.*"³⁰ The ER does not indicate how these impacts would be mitigated, and should also be part of the cumulative effects assessment.

Recommendation 13:

Xeneca be required to provide credible and substantial justification for its conclusions of potential adverse environmental effects as "Not Significant" and/or low residual effects.

6. Erosion

The Erosion Potential Assessment describes the project, "*with “modified run-of-river” operations, the facility would operate at the same rate as the natural flow in the river (i.e. “run-of-river”) with no variation in upstream water levels due to operation and no man-made variation in downstream flows from those experienced naturally.*"³¹ This is very misleading, when it is obviously not the case, as the proposal is reported to be "modified run-of-river" which would entail man-made variation in upstream and downstream flows and levels.

The Parish Geomorphology Report states, "*No long-term storage is proposed, and the operation will be run-of-river modified peaking to shift some production from night time and weekends to daytime hours on weekdays. In this mode of operation, the amount of water passed through the facility in any given day equals the natural run of the river flows. In order to minimize environmental impacts, the daily flow fluctuations will be constrained to periods of moderate or low flow, when the inflow rate is low and the amount of available storage is useable.*"³² In fact the reason for daily flow fluctuations in this operation is to maximize power generation, and has nothing to do with the

²⁷ Wanatango Falls Final ER, Operating Strategy, Conclusion P-16

²⁸ Wanatango Falls Final ER, 7.1.3 ZOI & Dam Operating P-204

²⁹ Wanatango Annex 1 Part 2 or 4, P2

³⁰ Wanatango Falls Final ER, 7.3.2 Water Quality - Sediment P-245

³¹ Wanatango – Annex 1 Part 4 of 4, Erosion Potential Assessment – P-16

³² Wanatango – Annex 1 Part 4 of 4, Parish Geomorphologic – P-41



environmental good of the river. These are the types of statements that undermine confidence in the objectivity and credibility of the report. There was no accounting for the power of the surge of water levels and flow velocity that occur when turbines are activated and flows rise from 2 m³/s or 4 m³/s to 20 m³/s in an instant.

Chris Chenier expressed concern that *"there were 2 active areas of erosion that are not shown in the modeling contained in the EA. This reduces our confidence in it as a characterization/reference condition tool. Without follow up in the field Xeneca would not be able to ascertain new areas or extents of erosion vs. old ones."*³³

The Parish assessment surveys covered approximately 4 km along the Frederick House River, from approximately 2 km upstream of the proposed dam site to 2 km downstream of the site, and included reaches WF2 to WF7, while WF1, WF8, and WF9 were not included.³⁴ This is the same scenario as ORA has encountered on all of Xeneca's ERs, where only short portions of the ZOI were actually assessed, and large portions are left out of the field assessment. This is unacceptable when the entire ZOI must be studied to understand which effects must be mitigated, and the areas not studied create large baseline data gaps that would undermine future monitoring and adaptive management initiatives.

The Parish report indicates that "Reach WF2 begins 6.4 km upstream of the proposed dam site"³⁵, and yet it had already indicated that field assessment only covered 2 km upstream of the dam site - so something does not compute here. It is unclear what the upstream extent that was actually studied, and must be clarified.

In response to concerns set out in the SVS Technical Review, in which an analysis by CPL of the extent and frequency of water level fluctuations were being explored, it was recommended that this analysis should be provided to TTN for review and analysis of potential impacts to wetlands, and an NRSI report stated that *"impacts are expected to be relatively minor as the daily water level fluctuations will be mostly mitigated by the existing beaver dams. However, beaver dams are not permanent structures."* Xeneca simply dismisses the impact their proposed operation could have on a beaver dam when responding *"it is of our opinion that the wetland in question is the result of the beaver dam and that the invert elevation of the beaver dam is higher than the proposed range of water level fluctuations and, as such, poses no effect to Xeneca's operations nor would any remedial action be required. This means that the daily water level fluctuations will not overtop the dam or have any impact on the wetland above the dam. It is agreed that dams are ephemeral features, however if the dam is lost and the wetland drains this will not be as a result of the proposed operations."*³⁶

Xeneca is relying on beaver dams to mitigate potential impacts to wetlands when, as expressed by SVS, beaver dams are not permanent structures. Xeneca must assess impacts to all wetlands that could be impacted by operations, both now and into the future.

Mattagami First Nation expressed concerns related to the downstream zone of influence, and the response in Table 28 was, *"Changes to water levels will be well within the*

³³ Wanatango – Appendix C, Wanatango All-Agency Meeting Minutes, April 17, 2013 – P-519

³⁴ Wanatango – Annex 1 Part 4 of 4, Parish Geomorphic – P-47

³⁵ Wanatango – Annex 1 Part 4 of 4, Parish Geomorphic – P-49

³⁶ Wanatango – Appendix E, Xeneca's Responses to SVS Technical Review, P363-364



existing conditions experienced within the project zone of influence. Although water level fluctuations may be more frequent, the fluctuations will be well within the range currently experienced as a result of operation of OPG's FHL D."³⁷ In fact, the geomorphic report indicates that "frequent water level fluctuations due to a modified run-of-river dam operation can increase shoreline erosion due to a combination of geotechnical slope failure (negative pore water pressure in the river banks due to rapid drawdowns) and river banks denuded of vegetation. A small amount of shoreline erosion occurs naturally in the river; however, accelerated and persistent shoreline erosion is undesirable..."³⁸ Also, the extreme surge in flow velocity and rise in water levels when turbines are activated will take flows from as little as 2 m³/s to 20 m³/s within a few seconds, and this wall of water surging on a daily basis would be very damaging to shorelines.

Daily water level fluctuations have a very different impact than do occasional water level fluctuations, and yet Xeneca continually makes the assertion that it will have no additional impact – this undermines confidence in the entire ER.

ORA submits that MNR has a mandate to protect our natural resources, where Xeneca's mandate is to maximize power generation and profits for its investors.

It is also apparent that this Project is neither predictable, repeatable nor mitigable.

Recommendation 14:

That the geomorphic study includes the entire upstream and downstream zone of influence, all the way out to where the effects of the proposed project are indiscernible from the existing condition.

7. Fish Passage – 2 Options

Option 1: Preferred: No fish passageway. Habitat compensation downstream, as well as relocate Lake Sturgeon out of the headpond and into the river downstream of the facility.

Option 2: Not preferred: Fishway along the downstream side of the embankment dyke, with offsetting habitat constructed both upstream and downstream of the facility.

Table 9 indicates that "*With the low dam option, flows will not accommodate a fishway.*"³⁹ At present, the low dam is the only option open for this development.

The fishway does not appear to be a reasonable option when the ER explains that "*water from the headpond will be spilled into and down the fishway to facilitate upstream and downstream fish passage. The amount of flow spilling into the fishway at any given moment would depend on the water level in the headpond: a flow of 3.1 m³/s in the fishway would occur when the headpond is at the NOL of 259 masl; when the headpond level is at 258 masl, flows in the fishway are estimated to be 0.6 m³/s.*"⁴⁰ 3.1 m³/s raises ORA's concern; however, 0.6 m³/s is irresponsible, especially when MNR has lobbied very hard for 6 m³/s.

³⁷ Wanatango Falls Final ER, Table 28: Issues and Concerns – Mattagami P-197

³⁸ Wanatango – Annex 1 Part 4 of 4, Parish Geomorphic – P-66

³⁹ Wanatango Falls Final ER, Table 9. P-120

⁴⁰ Wanatango Falls Final ER, 5.3 Spillway Flow Allocation, P-117



*"During modified run-of-river operations, when headpond water levels fluctuate between 258.0 and 259.0 masl on a daily basis, there will be periods when the flow in the fishway falls below 2 m³/s. During such periods, the pipe in the south spillway will provide up to 1.4 m³/s to account for the deficit. As such, for the fishway design option only, flows in the bypass reach during modified run-of-river operations may vary between 3.1 m³/s to 2 m³/s on a daily basis."*⁴¹

It was suggested that consideration be given to dropping intermittent operations, however, "UR explained intermittent operation is needed to derive revenue and he noted the proposed monitoring plan that is in place to ensure fish stranding is not occurring." MNR responded, "This is more than stranding. The potential effects of pulsing water on fish passage at this site are not well understood/explained. As currently proposed water pulses may have significant bearing on fish attraction, movement and poorly understood D/S nursery areas e.g. tributaries."⁴² Chris Chenier also expressed concerns when he said, "I appreciate Uwe's point about water from the tail race being used for this purpose...but this may have issues associated with it e.g. usurps attraction flows, is only available periodically and not at all times when the headpond inflows described in the Design Criteria table are reached."⁴³

Xeneca wanted to reduce flow in fish passageway in winter months as they could not rationalize 5 cms when it does not occur under existing conditions and "would maximize use of resource", however; MNR pointed out that "the 5 cms minimum D/S flow (Qea) is required to better protect D/S fish and benthos from desiccation and freezing in times when flows are unusually low (typically not the case) Moreover it was also needed to better ensure that unforeseen negative impacts to the overwintering pool are avoided. This is a critical habitat for the sturgeon population in this reach of river."⁴⁴

Chris Chenier clarified for the September 2013 meeting that "the 6 cms being requested for the bypass is only required at certain flows." Nava Pokharel, of Xeneca, stated that, "even with the fine tuning, the economic model still won't work with a 6 cms bypass flow nine months of the year." Chris clarified that "the key periods for passage are April 1st to June 30th and July 1st to November 30th.... No fish passage is required in winter months." Chris further stated the importance of fish passage at Wanatango when he stated, "my end point being that if we ignore fragmentation and habitat loss at this site we could in effect end up contributing to the uplisting of the James Bay population or a portion (Moose River Basin) thereof."⁴⁵

Uwe Roeper commented that "Xeneca is trying to differentiate if passage is critical to the life cycle of some species and when flows are required to meet those needs." Chris Chenier remarked that, "Xeneca should have followed up with more study to confirm why fish passage is occurring."⁴⁶ ORA agrees with this statement by MNR.

*"DFO accepts Xeneca's design for upstream passage provided that there is sufficient flow, but downstream passage still remains a question."*⁴⁷

⁴¹ Wanatango Falls Final ER, Bypass Reach, P-120

⁴² Wanatango – Appendix C – Meeting Minutes, April 17, 2013 – Wanatango All-Agency Meeting Minutes – P-520

⁴³ Wanatango – Appendix C – Meeting Minutes, April 17, 2013 – Wanatango All-Agency Meeting Minutes – P-521

⁴⁴ Wanatango – Appendix C – Meeting Minutes, April 17, 2013 – Wanatango All-Agency Meeting Minutes – P-523

⁴⁵ Wanatango – Appendix C – Meeting Minutes, September 12, 2013 – Wanatango Agency Meeting Minutes – P-529

⁴⁶ Wanatango – Appendix C – Meeting Minutes, September 12, 2013 – Wanatango Agency Meeting Minutes – P-530

⁴⁷ Wanatango – Appendix C – Meeting Minutes, September 12, 2013 – Wanatango Agency Meeting Minutes – P-527



The bottom line is, *"It is true the best estimate we have is 15 to 25 fish in the upstream reach. However we know there is movement between the two reaches and we don't know why. We also don't know if/where they spawn in the upstream reach. I speculate that the very large size of these fish supports them being mostly mature females...which in this case could be very productive with respect to eggs. In fact they could be a major source of sturgeon production in this river. If the proposed dam becomes a barrier to fish this production source, and its continuity through time, could be lost."*⁴⁸

*"MNR estimates that a population of 117 (\pm 33) Lake Sturgeon currently resides between Highway 11 and Wanatango Falls (OMNR 2010). To date, 90 individuals have been either pit tagged or radio tagged for monitoring by the OMNR (OMNR 2010). In July 2012, Cochrane MNR captured 11 Lake Sturgeon upstream from the proposed GS, including one that had been tagged in 2009 below Neeland's Rapids, approximately 24 km downstream. This indicates Lake Sturgeon are able to pass through Zeveryley's Rapids, the proposed GS, and Wantango Falls proper."*⁴⁹

If the James Bay population of Lake Sturgeon is a valued resource, and fish passage is recommended by MNR, but cannot safely be provided in this operation, then ORA submits that this proposal is not environmentally sustainable or feasible, and certainly not predictable, repeatable or mitigable.

Recommendation 15:

Xeneca be required to adhere to MNR's recommendations for fish passage, including a 6 cms by-pass flow.

8. Mercury

The ER reports *"The proposed headpond for the Wanatango Falls GS is relatively small and involves a smaller proportion of new inundation compared to reservoirs in which mercury methylation is reported."*⁵⁰ This is a misleading statement, as in fact, *"any flooding of land has the potential to effect the concentrations of available mercury in surface water, including the bioavailable form – methyl mercury."*⁵¹ Table 31 provides a comparison of methylmercury increase in fish tissue with northern Ontario referenced headponds, however, there is no mention of whether this in consideration of Option 1 or Option 2 headpond. It is also impossible to use a chart such as this when estimating methylmercury increases as headponds are very unique to their individual environmental influences, and a reference stating *"confidential agency source"*⁵² does not demonstrate confidence to the public and First Nations.

The ultimate concentration of mercury in aquatic organisms within these environments depend on a number of factors including the biological and chemical characteristics of the water body and sediment-water interface, including pH, dissolved oxygen, oxidation-redox potential, sulphate concentrations, all of which affect the potential for and rate of bacterial decomposition and methylmercury generation and transfer from sediments to the overlying water. As the ER points out, the *"Literature sources (eg. Ullrich, S.M. et al,*

⁴⁸ Wanatango – Appendix C – Meeting Minutes, September 12, 2013 – Wanatango Agency Meeting Minutes – P-532

⁴⁹ Wanatango – Appendix E, Shared Value Solutions Report, Wanatango – Lake Sturgeon - P-330

⁵⁰ Wanatango Falls Final ER, Table 90: Identified Issues and Management Strategies P-216

⁵¹ Wanatango Falls Final ER, 7.3.2 Water Quality, Mercury P-247

⁵² Wanatango Falls Final ER, 7.3.2 Water Quality, Mercury P-247



2001) suggest a complex relationship among various factors such as availability of organic material to stimulate methylation, concentration of mercury in the system, anoxic conditions to allow methylation to occur, the portion of watershed and food chain affected by new inundation and the ongoing flushing and attrition of methylated mercury from the system."⁵³ This information is not available in the ER.

The ER reports a potential increase in fish tissue mercury in the Wanatango headpond from 0 to 85%; however, a report resulting from Experimental Lakes Area studies entitled "Experimenting with Hydroelectric Reservoirs – Researchers created reservoirs in Canada to explore the impacts of hydroelectric developments on greenhouse gas and methylmercury production" in the FLUDEX and ELARP studies, which indicated that flooding accelerates microbial decomposition of organic carbon and releases GHGs, and *"in reservoirs, fish tissue concentrations of MeHg increase three to five-fold after flooding (10, 11). Concentrations typically remain elevated for at least two decades (10, 11) at levels that may be high enough to affect fish reproduction and growth (12-14) and the reproduction of piscivorous waterfowl (15). Within a few years of flooding, MeHg concentrations in piscivorous species (northern pike and walleye) may reach average values of 2-4 ug/g wet weight and levels of 8 ug/g or higher in individual fish (10, 11), which is much higher than the limits for commercial sale in Canada (0.5 ug/g) and in the United States (0.3 ug/g)."*⁵⁴

*Another ELA study reported, "In summary, our study confirmed the results of previous studies that flooding of terrestrial catchments invariably results in large increases in MeHg concentrations in zooplankton. Although initial increases in MeHg concentrations in zooplankton were not correlated with the amount of flooded terrestrial C in each catchment, the duration of elevated MeHg increased with C stores. The magnitude and duration of changes in zooplankton MeHg were most strongly determined by changes in MeHg in unfiltered water but were also modified by changes in water chemistry, especially DOC."*⁵⁵

There are already elevated mercury levels in fish tissue in this part of the Frederick House River, therefore a comprehensive study must be completed to ensure that this project will not result in increased mercury levels in fish tissue that could create a further risk to public health and safety. It is not sufficient to complete a simple desktop survey, or wait until it's too late with adaptive management strategies, when the fisheries in this area have already been identified as a valued ecosystem component. ORA submits that this is not acceptable.

This is a public health and safety issue that must take precedence over all other considerations.

Recommendation 16:

Xeneca be required to complete a comprehensive methylmercury study that will examine all of the identified factors existing within the proposed headpond area, including soil and

⁵³ Wanatango Falls Final ER – Mercury, P-248

⁵⁴ Experimenting with Hydroelectric Reservoirs, R.A. Bodaly, Kenneth Beaty, Len Hendzel, Andrew Majewski, Michael Paterson, Kristofer Rolfhus, Alan Penn, Vincent St. Louis, Britt Hall, Cory Matthews, Katharine Cherewyk, Mariah Mailman, James Hurley, Sheery Schiff, Jason Venkiteswaran

⁵⁵ Changes in methyl mercury concentrations in zooplankton from four experimental reservoirs with differing amounts of carbon in the flooded catchments, Britt D. Hall, Katharine A. Cherewyk, Michael J. Paterson, and R. (Drew) A. Bodaly



sediment, to provide a quantitative analysis and a projected post-construction estimate of increased mercury levels in fish tissue.

Recommendation 17:

Xeneca be required to include methylmercury impacts in a socio-economic impact study to better understand the net costs, both short-term and long-term, to potentially affected stakeholders who rely on fishing as an economic driver, and for First Nations who rely on fish as a main staple in their diets.

9. Cumulative Effects

When concerns were expressed by Marcel Lafrance over cumulative effects, "*Xeneca replied that the projects can't affect another facility without an agreement or compensation will happen.*"⁵⁶ Xeneca appears to not understand the concept of cumulative effects, and therefore does not account for them.

Another environmental issue was "*MNO concern regarding the cumulative impact of hydro development combined with other forms of development*", and Xeneca's response was "*The extent of the project influence extends below the tailrace of the FHL D (approximately 1.4 km downstream). As such, Xeneca's project cannot have any impact on the FHL D or upstream areas, including Nighthawk Lake. Changes to water levels will be well within existing conditions experienced within the project zone of influence. Although water level fluctuations may be more frequent, the fluctuations will be well within the range currently experienced as a result of operation of OPG's FHL D.*"⁵⁷

And again, Wahgoshig expressed concern regarding local flooding and the cumulative impact of project development on reserve lands, and Xeneca's response is "*Xeneca has no authority or intention to change the existing operating plan of the FHL D. The proposed project will not have any effect on the operation and water level of the FHL D.*"⁵⁸

None of the above responses demonstrate a basic understanding of cumulative effects. There was no problem explaining cumulative effects when the ER explains that, "*the Frederick House River will have an installed capacity of 3.7 MW and will have a positive cumulative effect along with all other new generation facilities of the province. The idea of "every kilowatt counts" will be collectively met to contribute to the government's goal of generating clean energy for the province.*"⁵⁹ The Long Term Energy Plan reports that we are predicted to have a surplus of power for the next several years; therefore it doesn't appear the Province is in a situation where it has to approve of every MW at any cost.

The ER reports that 2010 studies indicated Provincial Water Quality Objective (PWQO) exceedances of aluminum, chromium, iron and total phosphorus. 2012-2013 studies indicated PWQO exceedances of aluminum, iron, copper, cobalt, silver and zirconium. The combination of exceedances of several heavy metals, as well as high nutrient and

⁵⁶ Wanatango – Appendix E, Abitibi Temiscamingue/James Bay Consultation Committee/Xeneca – Meeting Notes, 23 January 2013 P-944

⁵⁷ Wanatango Falls Final ER, Table 90: Identified Issues and Management Strategies P-235

⁵⁸ Wanatango Falls Final ER, Table 90: Identified Issues and Management Strategies P-236

⁵⁹ Wanatango Falls Final ER, 11. Cumulative Effects P-303



elevated phosphorus levels, along with the low flow conditions for an average of 6 months of the year, and we have a recipe for water quality and blue-green algae issues. All of these issues should have been considered when assessing cumulative effects.

When considering the seasonal trends in water quality, the ER also reports "*in the Frederick House River, flows through the project area are currently controlled by the upstream OPG dam, and conditions likely reflect its operation and upstream natural and human-related variation. Water quality in the project area may be strongly controlled by the operating regimes of the OPG dam and its effects will have to be considered following development of the Wanatango Falls GS facility.*"⁶⁰ Xeneca considers the OPG dam operation's impact on water quality, and yet does not mention how this proposed Wanatango facility's operation would impact cumulatively on the environment, fishery and habitat.

There is inadequate consideration of the cumulative impacts on water quality, species at risk, and fish habitat, and little mention of the cumulative effects of the low to no flow conditions, combined with the current elevated heavy metal and phosphorus levels, along with the added effects of the Wanatango GS and its operating strategy on the environment.

Recommendation 18:

Xeneca be required to complete a full cumulative effects assessment report which includes consideration of all past, present and future developments and conditions on the riverine ecosystem.

10. Adaptive Management

*"Adaptive management must be paired with the precautionary principle. A sufficient environmental impact assessment should be completed and monitoring and adaptive management/contingency plans should arise out of it, as opposed to asking individuals, communities and decision-makers to bear the risks associated with the many uncertainties which currently exist."*⁶¹ ORA thoroughly agrees with this statement, and further raises concerns in building such a borderline project when there are no up-front dam decommissioning provisions secured to enable removal of the dam in the event that it is not economically, environmentally or socially sustainable.

Recommendation 19:

Xeneca be required to provide a monitoring, compensation, mitigation and adaptive management plan to ensure that all valued ecosystem components, including the Walleye and Lake Sturgeon populations, are protected.

11. Recreation and Tourism

Xeneca points out that "*Tourism is one of the top economic driving forces of the Northeast region and communities that are within and adjacent to Abitibi River Forest. The Ministry of Tourism and Culture (MTC) gathered statistical data concerning the*

⁶⁰ Wanatango Falls Final ER, P-48

⁶¹ Wanatango – Appendix E, Shared Value Solutions Report, 3.4 Monitoring and Adaptive Management Issues, P-212



*economic impact of tourism on the region of the Abitibi River Forest (MTC Census Division 56: Cochrane District). In 2008, 663,000 visitors to the Cochrane District tourism area accounted for \$98.6 million in visitor expenditures. This spending generated \$59.3 million in direct and indirect contributions to gross domestic product (GDP), generating \$35.6 million in labour income and salaries and 998 part-time, full-time and seasonal jobs. Total taxes generated as a result of visitor spending in the Cochrane census division reached \$32.3 million including \$183,000 in municipal taxes (Ontario Ministry of Tourism 2008)."*⁶²

It was also noted that *"the quality of fishing and hunting is regarded as the most common reason for resource-based travel followed by tranquility and solitude. Other outdoor activities such as trapping, camping, canoeing and snowmobiling are specified as important recreational uses of the general area."*⁶³ As the ER points out the river is used for boating, kayaking, canoeing, camping, hunting, and fishing is noted to be a significant recreational activity in the area. The area has also been used for many years for various recreation activities and nature appreciation, and the river and falls have an aesthetic value with local residents and recreational users. The ER also boasts that *"Xeneca proposes mitigation measures that include a fishway that could potentially attract visitors"* and yet it is not their preferred option. It also suggests that *"with respect to commercial/tourism related economic impacts, it is Xeneca's opinion that the project will not significantly affect the aesthetics, fishery or tourism at the site and, in fact, may be enhanced with the above mentioned improvements to road access, boat launch, parking etc."*⁶⁴

In actual fact with the modified run-of-river operating strategy that is proposed, the river flow velocity and water level fluctuations could make the river unsafe for public use during certain hours of the day, and could impact on fisheries, as well as wintertime ice travel. The ER reports that Xeneca consulted with members of the angling community and commercial operators using the site, and no outstanding issues were identified⁶⁵; however, the average person does not understand the impacts, and it is doubtful that Xeneca expanded on that point.

The ER admits that *"common concerns associated with modified ROR operations include potential impacts to aquatic habitat, navigation, public safety and civil structures, and ice scour."*⁶⁶

Note: As per Recommendation 10 above, an independent third party cost/benefit analysis must be completed in order to better understand the potential impacts to local fisheries, as well as the recreation and tourism industry.

12. Economic Viability

At a meeting with Flying Post First Nation in March 2014, *"Arnold discussed the archaeology work and described the precontact artifacts found in the Stage II investigation. Xeneca will complete the Stage III on the condition that financial modeling*

⁶² Wanatango Falls Final ER – 2.11.3 Recreation Use and Commercial Tourism, P-80

⁶³ Wanatango Falls Final ER, 2.11.3 Recreation Use and Commercial Tourism, P-80

⁶⁴ Wanatango Falls Final ER, 2.11.8 Area Aesthetics, P-82

⁶⁵ Wanatango Falls Final ER, 2.11.12 Fishing, P-82

⁶⁶ Wanatango Falls Final ER, 5.4 Variable Flow Reach, P-118



*describes a viable project.... There are 4 major factors that affect project financing.... 4. Revenue generation from available water in the system."*⁶⁷

Arnold Chan stated, *"The only variables we don't control are weather risk (how much is in the river from year to year) and interest rates. Those will be determined by nature and the markets."*⁶⁸ However, he failed to mention that it is Xeneca's responsibility to look at weather trends of past, present and future predictions, which can provide excellent insight into the future of this waterpower project.

Arnold explained that *"Xeneca needs to carefully manage costs in terms of the broader picture (business) and reminded that the Wanatango is a small project and expenses and expectations need to be managed carefully. The economics are marginal and ultimately the projects need to be viable to complete the approval process."*⁶⁹

Xeneca also explained, *"there are cumulative impacts and Arnold further explained the challenges with the project and the necessity for peaking to keep the Wanatango project viable economically."*⁷⁰

Uwe Roeper, *"further noted that the financial implication of minimum bypass/fishway flows as proposed by MNR make the small project economically unviable. The proposed bypass flows would take half the available flow away from the power production."*⁷¹ If Xeneca can't undertake this project in a responsible and environmentally sustainable way, then this project is not feasible.

This project is economically very tight and MNR's requirements for adequate environmental flow for fish passage caused concern, *"If 6 cms bypasses the Wanatango turbines for a prolonged period of time, there is a very significant economic effect from lost revenue. The difference between a permanent 2 cms flow and a 6 cms flow is a 5 percent loss in revenue. The lost revenue pushes the project to a point where it is no longer economically viable."*⁷²

*"Xeneca has provided MNR the economic impact of 6 or 7 cms fishway flow on the project rate of return and economic. A fishway flow of 6 or 7 cms would have a hugely negative impact on the revenue of the project which will make the project economically not viable."*⁷³

*"MNR still has concerns with regard to the flow data used to influence the proposed operating plan for the Wanatango Falls project. This is a relatively complicated operating plan which in our view is a reflection of the significant operational challenges a facility faces at this location in an effort to be viable."*⁷⁴

"We have been at an impasse with the regulators (MNR, MOE and DFO) on compensatory flow among other issues and it has been delaying our ability to finalize the

⁶⁷ Wanatango – Appendix E, Flying Post First Nation/Xeneca Meeting, 5 March 2014, P-687

⁶⁸ Wanatango – Appendix E, 21 August 2012 email from A. Chan to James Gillis - P152

⁶⁹ Wanatango – Appendix E, Wahgoshig First Nation/Xeneca, 15 May 2012 Teleconference, P-777

⁷⁰ Wanatango – Appendix E, Wahgoshig First Nation/Xeneca, 11 September 2012 Meeting Notes, P-784

⁷¹ Wanatango – Appendix C – Meeting Minutes, April 17, 2013 – Wanatango All-Agency Meeting Minutes – P-522

⁷² Wanatango – Appendix C – Meeting Minutes, September 12, 2013 – Wanatango Agency Meeting Minutes – P-530

⁷³ Wanatango – Appendix C – Agency Comments & Xeneca Responses - MNR P-543

⁷⁴ Wanatango – Appendix C – MNR Concerns – Xeneca's Response – P 59



*Environmental Assessment for the project. Because this project is already on very tight economics, we have very little room for movement."*⁷⁵

Again, ORA submit that this proposal is not environmentally, socially or economically sustainable or viable, and is not predictable, repeatable or mitigable.

Note: As per Recommendation 10 above, an independent third party cost/benefit analysis must determine the net value of what this project would contribute to Ontario economy for the amount of power generated by this project, vs what the fisheries and other valued ecosystem resources within the Frederick House River contribute to Ontario's economy.

13. Dam Decommissioning

Ontario is littered with old and derelict dams that are no longer in use, along with access roads, and in the case of hydro dams, transmission lines and poles that must be monitored and maintained (at a cost, usually to the taxpayer), and ultimately removed for safety and/or ecological reasons. This all takes dollars that taxpayers should not have to pay. Developers reap the rewards for at least the 40 year life cycle of their contract, and a portion of these funds must be secured for dam decommissioning.

The Wanatango proposal is a good example of a risky development that could prove to be uneconomical, or socially or environmentally unviable, when its feasibility is already in question. If the FIT contracts were to be terminated, profits reduced, or costly repairs were needed due to damage caused by ice or flooding, or if climate change reduced the amount of water available for energy production, the payback from these small rivers could make this facility unprofitable. This could result in bankruptcy and/or abandonment. There is no commitment in this ER for setting provisions aside to decommission the facility and its infrastructure if events such as the foregoing should occur. Provisions for dam decommissioning are essential.

Recommendation: 20

Decommissioning provisions be required up-front in the event that the facility is no longer socially, environmentally or economically sustainable and needs to be removed.

14. Aboriginal Consultation

Again, it appears Xeneca has only focused on a business deal with First Nations and has not provided any formal community consultation sessions where the full community and elders were formally invited. Xeneca's goals, as set out in its Aboriginal Consultation Plan, were to "*address the concerns of Aboriginal Community Members.*"⁷⁶ Xeneca's Aboriginal consultation goals 2.8 state that "After submission of the EA Report, Xeneca will organize Aboriginal Information Centers if deemed desirable by the Communities."⁷⁷ It is unacceptable for Aboriginal Consultation to be held after the EA Report has been issued, or for a business deal for FN communities to be made when the people living within the communities have no notion of what is being proposed or agreed

⁷⁵ Wanatango – Appendix E, Email from Arnold Chan to Irene, Jan 20, 2014 – P-767

⁷⁶ Wanatango Appendix E, 2 Aboriginal Consultation Plan, 2.2 Goals – P-9

⁷⁷ Wanatango – Appendix E, Aboriginal Consultation Plan, 2.8 Information Centre P-15



upon.

At a meeting with the Matachewan First Nation on 19 February 2014, there was a mention in the meeting notes that "*members of the community mingled with Xeneca team and reviewed the information panels.*"⁷⁸ Again in a Mattagami FN meeting it was mentioned that the community mingled with the Xeneca team and reviewed the information panels, and that additional youth walked into the room during the presentation, but it was not a meeting where all of the community were invited. Another mention of displays set up, and a Powerpoint presentation, for community members to take part for the Wahgoshig First Nation on 11 Sept. 2012. These were meetings where it was only incidental when the community members were able to view the information after these three meetings. It was not a formal Aboriginal Information Centre.

Xeneca reported that it "*hosted a Community Meeting on August 16, 2013 during TTN's AGM and had significant attendance from the Community. If TTN requests an additional Community Meeting in Moosonee, Xeneca will comply.*"⁷⁹ There was no record of this meeting found in the Aboriginal Consultation Appendix E.

If Xeneca is not able to hold an Aboriginal Information Centre until a business deal is signed, then the Environmental Report should not be issued for comment until this responsibility is fulfilled.

Recommendation 21:

Xeneca be required to provide Aboriginal Information Centres and meaningful consultation with all members of relevant First Nation communities before a Statement of Completion is issued.

15. Class EA for Waterpower

Section 1.3 of the Class EA for Waterpower indicates that "Not all undertakings subject to the *EA Act* need to go through the individual EA process. There are some groups or "classes" of projects which are carried out routinely; and have predictable and mitigable effects to the environment and therefore, do not warrant an individual EA. These are known as Class Environmental Assessment (Class EA) projects.

ORA has pointed out numerous areas in this submission where the Wanatango Falls Waterpower Project is neither predictable, repeatable or mitigable, and Chris Chenier of MNR, also relayed their uncertainty when he said, "We don't fully understand what happens when you change flows or levels."⁸⁰ This meeting was very revealing in that it showed that MNR needed more data in order to "*stay true to the river and to gain more comfort with moving forward with the EA*", however, Xeneca relayed their own concerns and stated, "I do not have the budget to do the entire field program over again; I can only authorize NRSI to address the critical issues." Carl Jorgenson, DFO, also commented, "*In general, if there is only one years' worth of data collected then you need to take a conservative approach. More information is better because it helps to make a more informed decision and a better mitigation strategy.*"⁸¹ This is a problem in that the river

⁷⁸ Wanatango Appendix E, Matachewan First Nation/Xeneca Meeting, 19 February 2014, P-531

⁷⁹ Wanatango Appendix C – Agency Comments & Xeneca Responses - MNR P-543

⁸⁰ Wanatango – Appendix C – Conference Call Meeting Minutes, April 23, 2012 – NRSI, Xeneca, MNR, DFO, P-484

⁸¹ Wanatango – Appendix C – Conference Call Meeting Minutes, April 23, 2012 – NRSI, Xeneca, MNR, DFO – P-491



is not being properly assessed because budget is not sufficient, and time is a major factor.

Paul Norris noted, "*there is never a single way to approach a problem and that the creativity of the parties is an important feature of the design of the Class EA*". MOE warned that "*MNR is ultimately required to provide a disposition of the Crown Resource, and that any disposition must be consistent with Crown Stewardship EA requirements.*"⁸²

Mark Holmes complained that "*the DZOI definition as currently proposed is of concern to both Xeneca and the waterpower industry as a whole. The meeting heard how statistical approach devised by the MNR/MOE technical team does not allow anything but run of river development, which is not what is required by the system operator, nor is it economically feasible in many cases. The proposed DZOI will have major policy implications and consultation with the industry must occur.*"⁸³

Consequently there is a basic disagreement between Xeneca and regulators on something that is crucial to an environmentally sustainable and responsible waterpower proposal, so again, this only reinforces the problem with these types of projects being regulated under a Class EA, when they should be administered under an Individual EA.

Conclusion:

It is ORA's position that as a result of the potential significant and ongoing negative impacts to the environment, and the numerous concerns as set out in this letter and expressed by MNR and MOE, that this project is neither predictable, repeatable, nor is it mitigable. This proposal and ER therefore do not comply with the Class EA for Waterpower as regulated under the Environmental Assessment Act, or its statutory purpose for "the betterment" of the people of Ontario by providing for the "protection, conservation and wise management" of the environment.⁸⁴

In 2008, the ECO summarized public concerns about Class EAs as follows:

Class EA approaches were intended for projects that occur frequently, with generally predictable ranges of effects and relatively minor environmental impacts. But critics have long argued that too many large and environmentally significant projects have been inappropriately slipped into the Class EA fast track...

Under the Class EA process, public concerns abound. A "no" decision is not a possible outcome. The ministry can only elevate the status of the project to an individual EA or impose conditions. Frustrated members of the public invoke the available appeal mechanism (a request for a "bump up" to an individual EA, also known as a "Part II order") about 60 to 70 times in a typical year, but to the ECO's knowledge, the ministry has not granted one such request. The minister does, in some cases, respond to bump-up requests by imposing conditions on proponents. But the conditions are often soft measures, such as additional consultation through liaison committees, rather than what is most sorely needed: stronger mitigation measures.⁸⁵

⁸² Wanatango – Appendix C – Meeting Minutes, April 17, 2013 – Wanatango All-Agency Meeting Minutes – P-517

⁸³ Wanatango – Appendix C – Meeting Minutes, April 17, 2013 – Wanatango All-Agency Meeting Minutes – P-521

⁸⁴ EA Act, s. 2.

⁸⁵ ECO, *Annual Report 2007-08*, at 30, 42.



The decision-making and reporting process used by Xeneca in reaching its conclusions in this ER are neither transparent nor traceable. First Nation consultation was inadequate, several kilometers of riverine ecosystem have not been adequately assessed, and there are many other concerns and uncertainties as detailed above. As a result, ORA submit that this proposal has not met the requirements of the Class EA for Waterpower.

Part II Order Request

After having carefully reviewed the information as presented in the Wanatango Falls Waterpower Project ER; and in consideration of its potential for serious negative impacts to the environment; the lack of due diligence in completing the appropriate studies throughout the entire zone of influence; and in Xeneca's failure to obtain all the necessary agreements to ensure that this project is viable and sustainable; and further that this waterpower proposal is neither predictable, repeatable or mitigable in its present form, it therefore does not meet the requirements of the Environmental Assessment Act or the Class EA for Waterpower. ORA therefore requests that the Minister issue a Part II Order to elevate this proposal to an Individual Environmental Assessment.

An Individual Environmental Assessment would ensure this project is environmentally, economically, and socially sustainable, and would result in net benefits to the people of Ontario.

ORA also requests that the Minister consider each of the recommendations as set out above.

Thank you for this opportunity to comment. We look forward to your response.

Respectfully,

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